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The Effect of Risk Assessment on Racial Disproportionality in the Child Welfare System

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THE EFFECT OF RISK ASSESSMENT ON RACIAL DISPROPORTIONALITY IN

THE CHILD WELFARE SYSTEM

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By

Joseph R. Martin

August 2012

THE EFFECT OF RISK ASSESSMENT ON RACIAL DISPORPORTIONALITY IN

THE CHILD WELFARE SYSTEM

By

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ABSTRACT

THE EFFECT OF RISK ASSESSMENT ON RACIAL DISPROPORTOINALITY IN

THE CHILD WELFARE SYSTEM

By

Joseph R. Martin

August 2012

Thesis supervised by Ann Marie Popp, Ph D.

Minority children are involved in the child welfare system at rates

disproportionate to their numbers in the overall population. Prior research argues that

risk assessments conducted by child welfare agencies may be racially biased, and thus

contribute to disproportionality. This study seeks to explore the effect of different risk

assessment models on racial disproportionality. This is done by examining the

relationship between race/ethnicity and various child welfare outcomes in three states that

utilize the consensus-based model and three states that utilize the actuarial model of risk

assessment. Results were similar for both groups of states, suggesting that one model is

not more biased than the other. The results also indicate that racial/ethnic groups enter

the child welfare system at different rates. However, groups remained involved in

subsequent outcomes at consistent percentages. Finally, the results suggest differential

treatment among the most restrictive child welfare outcomes.

DEDICATION

For Liz, Mae, and Baby Boy.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Introduction

Research on the role of race in the child welfare system has put forth assertions that the process of risk assessment conducted by child welfare agencies may be racially biased, thus contributing to racial disproportionality. This study seeks to explore the effect of different risk assessment models on racial disproportionality.

Minority children are involved in the child welfare system at rates disproportionate to their numbers in the overall population (Derezotes, Poertner, & Testa, 2005; Courtney & Skyles, 2003). In 1999, African-American children made up about 15 percent of the child population in the United States, yet they constituted 45 percent of children in out-of-home care. In the same year, white children made up 60 percent of the U.S. child population, yet constituted 36 percent of children in out-of-home care (Derezotes & Poertner, 2005).

The literature on racial disproportionality offers differing explanations for this phenomenon. Noting a higher prevalence of risk factors for child maltreatment in minority communities, one view is that the disproportionate representation of minority children in the child welfare system is an accurate representation of actual rates of maltreatment (Drake & Johnson-Reid, 2011; Bartholet, 2009). Others maintain that minority children are not more likely to experience maltreatment than white children, and contend that biased practices within the child welfare system contribute significantly to racial disproportionality (Courtney & Skyles, 2003; Sedlak & Broadhurst, 1996; Hill, 2006; Fluke, et al., 2003).

Involvement in the child welfare system can mean a range of things. Points of intervention by a child welfare agency may include: investigations into allegations of maltreatment, service provision, court involvement, and out-of-home placement. In order to help determine the appropriate course of action at the various stages of intervention, child welfare agencies will perform a risk assessment to determine the level of risk for future maltreatment to the child or children involved. Risk assessment is a key component in decision-making for child welfare agencies. As such, some assert that bias during the process of risk assessment contributes to the broader problem of racial disproportionality (Gambrill & Shlonsky, 2000; Bay Area Social Services Consortium, 2005; McDonald & Marks, 1991).

Most child welfare agencies currently perform a risk assessment using a structured measurement tool. The type of risk assessment model used varies by agency, although researchers identify two main model types: consensus-based instruments and actuarial instruments (Bay Area Social Services Consortium, 2005; Gambrill & Shlonsky, 2000). Consensus-based models are known to rely heavily on the discretion and experience of the caseworker in predicting future maltreatment. Some researchers have expressed concern that the subjective nature of this model may result in biased decision-making, which may then lead to inappropriately disproportionate outcomes (Gambrill & Shlonsky, 2000; Bay Area Social Services Consortium, 2005; McDonald & Marks, 1991). Gambrill and Shlonsky (2000) write that actuarial models are designed to address bias in the risk assessment process. The risk assessment model is based "on empirical relationships between certain predicted variables and outcomes" (Gambrill & Shlonsky, 2000, p. 817). In research on risk assessment tools, the actuarial model has been shown

to outperform the consensus-based model in predicting future maltreatment. In general, the literature supports the claim that an actuarial risk assessment will lead to less biased and more accurate child welfare outcomes (Gambrill & Shlonsky, 2000).

It is important to understand the extent to which systemic bias may play a role in this issue. Increased understanding in this area will help guide future efforts in public policy to ameliorate this problem. Specifically, assertions that the risk assessment process itself exacerbates racial disproportionality should be investigated thoroughly, in order that any appropriate and necessary changes can be made by child welfare agencies as soon as possible. This study explores the effect of race/ethnicity on racial disproportionality. This is done by examining the effect of race/ethnicity on four child welfare outcomes in three states that utilize the consensus-based model for risk assessment and three states that utilize the actuarial model for risk assessment.

Literature Review

Child Protective Services

Child Protective Services (CPS) is a government agency present in every community throughout the United States. CPS is responsible for receiving reports of suspected child abuse or neglect, assessing the safety of the child or children involved and providing supportive services for those children and their families. While the function is always the same, CPS is referred to in some communities by other names, such as Children, Youth and Families, or Child and Family Services.

The process of CPS involvement begins with the Intake stage. According to the U.S. Department of Health and Human Services (2003), during the Intake process, when CPS receives a report of child maltreatment, the agency "determines if the reported

3

information meets the statutory and agency guidelines for child maltreatment, and judges the urgency with which the agency must respond to the report" (U.S. Department of Health and Human Services, 2003, p. 1). If the report meets the guidelines for maltreatment, the process moves to the Initial Assessment or Investigation phase. During the Investigation phase, CPS must determine whether the report of child maltreatment is substantiated or not. A substantiated report refers to "an investigation disposition concluding that the allegation of maltreatment or risk of maltreatment was supported or founded by State law or State policy. A CPS determination means that credible evidence exists that child abuse or neglect has occurred" (U.S. Department of Health and Human Services, 2003, p. 1). If there is no evidence of abuse, the case may be closed. If the report is substantiated, the case will remain open and continue on to the next phase of CPS involvement. During the Investigation phase, a CPS worker will also determine:

> If the child's immediate safety is a concern and, if it is, the interventions that will ensure the child's protection while keeping the child within the family or with family members, if at all possible; if there is a risk of future maltreatment and the level of that risk; and, if continuing agency services are needed to address any effects of child maltreatment and to reduce the risk of future maltreatment (U.S. Department of Health and Human Services, 2003, p. 2).

Once CPS has assessed the child's immediate safety, the next step of the CPS process is to conduct a family assessment. During the Family Assessment phase, the CPS caseworker will address risk factors, identify family strengths which may help reduce future risk, and assist children in coping with the effects of abuse or neglect (U.S. Department of Health and Human Services, 2003). Case Planning is the next phase of the process. In cases where a child's safety is at risk, this stage may include developing a safety plan. The case plan will include goals, desired outcomes, and a plan for how the family will achieve those outcomes. CPS implements the case plan during the Service

4

Provision phase. This may involve direct provision of services by the agency, or coordinating services to be provided through an outside organization. Throughout the process, CPS will continuously assess the family to determine their progress in ensuring the child's safety and meeting the goals set forth in the case plan. If the caseworker finds that the aforementioned steps are not sufficient to ensure the child's safety, CPS may petition the Court's involvement. Should the Court decide that its intervention is appropriate and necessary, the child or sibling group will be declared adjudicated dependent. The Court may then order and oversee services, or in some cases, order a child's removal from his or her natural home and place the child in out-of-home care (U.S. Department of Health and Human Services, 2003). Out-of-home care, in this context, refers to "child care, foster care, or residential care provided by persons, organizations, and institutions to children who are placed outside their families, usually under the jurisdiction of juvenile or family court" (U.S. Department of Health and Human Services, 2003, p. 3). If the child is placed in out-of-home care, CPS may continue to provide services for the family, including efforts to reunify the child with the family. The Court may also terminate parental rights, in which case, the child would be eligible for adoption.

Case Closure is the final phase of the CPS process. Ideally, a case closes when the risk of child maltreatment has been reduced or eliminated and the family has achieved its goals. Sometimes, cases close because the family chooses to discontinue services and CPS does not have cause to refer the case to family court, or if the child is adopted (U.S. Department of Health and Human Services, 2003). The process described above is illustrated in Figure 1.

Risk Assessment

Wald and Woolverton define risk assessment as "a process for assessing the likelihood that a given person (usually a parent) will harm a child in the future" (1990, p. 483). As mentioned in the previous section, during the Investigation stage of the CPS process, the CPS worker will determine "if there is a risk of future maltreatment and the level of that risk; and, if continuing agency services are needed to address any effects of child maltreatment and to reduce the risk of future maltreatment" (U.S. Department of Health and Human Services, 2003, p. 1). The goal of a risk assessment is to predict the likelihood of future maltreatment, in order that the family may receive the appropriate services (BASSC, 2005). Baird and Rycus write that,

> The unique role of risk assessment in the larger context of child protection is to classify families accurately into groups based on their likelihood of future maltreatment, thereby enabling agencies to decide which families to serve and monitor within the child protection system. This allows agencies to divert families with low probability of future maltreatment to other community providers and to target the most intensive services to the children and families most likely to experience maltreatment (2005, p. 7).

Most CPS agencies make these determinations using an instrument to measure or assess the level of risk for the child involved. Because case workers have different levels of training and experience, such instruments are used to increase the consistency and validity of decisions made by CPS workers (Baird & Wagner, 2000; Wiebush, Frietag & Baird, 2001). Research on human decision-making identifies errors that individuals commonly make in their decisions. A report by the Bay Are Social Services Consortium notes that people tend to "1) ignore the probability of an event in making predictions

about the likelihood of its occurrence; 2) be overconfident of their ability to predict an

event; and 3) have difficulty weighing factors related to a decision. Studies in social

Figure 1: Flowchart of the Child Protective Services Process

Identification
- Recognize signs of child abuse or neglect

Reporting
- Contact designated agency (CPS or law enforcement)
- Provide information on suspected maltreatment

Intake
- Determine whether report meets statutory and agency guidelines
- Decide whether to investigate
- Assess urgency of response to request

Screened out

Initial Assessment or Investigation
- Contact child and family and gather information
- Determine whether maltreatment occurred
- Assess safety of child and need for emergency removal or services
- Assess risk of future abuse or neglect

Ruled out or Unsubstantiated

Referral

Substantiated or indicated

Family Assessment
- Identify family strengths and needs
- Assess factors contributing to risk of maltreatment

Planning
- Specify outcomes and goals that will reflect reduction or elimination of risk of maltreatment
- Identify strategies or services to achieve goals and outcomes
- Develop case plans, permanency plans, and other plans
- Set time frames

Service Provision
- Provide in-home services (e.g., family preservation, parenting education)
- Provide out-of-home services (e.g., foster care, reunification services)

Evaluation of Family Progress
- Assess safety of child and reduction of risks
- Evaluate achievement of family outcomes, goals, and tasks
- Review progress and need for continued services

Continued Services

Case Closure
- Assess levels of safety and risk
- Determine whether family can protect child without further CPS services

(U.S. Department of Health and Human Services, 2003)

work suggest that child welfare workers are prone to the same difficulties in decision-making" (2005, p.1-2). For this reason, decisions related to child-safety vary significantly among caseworkers, even among those considered to be child welfare experts (Wiebush, Frietag& Baird, 2001). However, human error is not the only factor in this issue; CPS caseloads may also affect decision-making. Wiebush et al. state that,

> Problems of increasing referrals, limited resources, and liability exposure are inextricably linked with decision-making issues. Agencies overwhelmed by heavy workloads need to be able to consistently and accurately determine which cases should be investigated, which children need to be removed from their homes, and which families require the most intensive services (2001, p. 5).

Overall, the literature indicates that instruments are needed to assist caseworkers in making accurate and reliable assessments of risk (BASSC, 2005; Wiebush, Frietag& Baird, 2001). Accurate and appropriate decision making is critical to prevent the overuse of out-of-home placement or the future maltreatment of a child (Wiebush, Frietag& Baird, 2001).

Use of a structured risk assessment tool has not always been standard practice for CPS agencies. However, over the last three decades, most states have implemented risk assessment systems to guide staff in their decision-making (Baird & Wagner, 2000). Increasing use of risk assessment systems represents a shift in child welfare practice. Lyle and Graham write that,

> By definition, risk assessment, when used as a means to determine the likelihood of child maltreatment given no intervention, necessitates a proactive approach to decisions regarding service intervention, out-of-home placement, and data collections. This contrasts with traditionally reactive approaches, in which agencies make programmatic decisions after maltreatment has already occurred (2000, p. 935).

Risk assessment models vary among child welfare agencies. In general, risk assessment models are characterized as either consensus-based or actuarial (Baird & Wagner, 2000; BASSC, 2005; Gambrill & Shlonsky, 2000).

The Consensus-Based Model

The name "consensus-based" comes from the fact that items included in the instrument are based on research and theories on child maltreatment and the opinions of expert practitioners (BASSC, 2005). Use of a consensus-based instrument relies heavily on the discretion and experience of the caseworker in predicting future maltreatment (Gambrill & Shlonsky, 2000). When using such an instrument, caseworkers will assess specific risk factors identified in the instrument using their own judgment (Baird & Wagner, 2000).

In their research on the validity of risk assessment tools, Baird and Wagner (2000) found that consensus-based instruments were helpful in organizing the caseworker's clinical assessment of risk. Other research has found that this is a comprehensive approach to risk assessment, which allows caseworkers to gather important information necessary for their decision-making. Specifically, caseworkers are able to exercise clinical judgment regarding risk-factors that may not otherwise be covered by an instrument (BASSC, 2005).

However, consensus-based instruments are criticized in child welfare research primarily due to poorly defined and subjective measures (BASSC, 2005). One study found that caseworkers who used a consensus-based model showed inconsistency in their outcome predictions (Baird & Wagner, 2000). Further, while consensus-based instruments are said to be based on research, Baird and Wagner (2000) found that

consensus-based instrument measures were not based on empirical data specific to the workers' jurisdiction. That is, that the data used to construct an instrument may be specific to an area other than the one where it is being applied, and may not accurately reflect the family subject to the assessment. For these reasons, abundant child welfare research cites concern that there is significant room for bias in the consensus-based model (Gambrill & Shlonsky, 2000; BASSC, 2005; McDonald & Marks, 1991; Baird & Wagner, 2000).

The Actuarial Model

Actuarial instruments "use statistical procedures to identify and weigh factors that predict future maltreatment" (BASSC, 2005). Factors used in the instruments are based on extensive longitudinal research of variables shown to predict future abuse and neglect (Baird & Wagner, 2000). These instruments typically use fewer assessment items than consensus-based models, and generally use different factors to predict abuse and neglect. Each factor is scored, and the total score is used to classify the family as low, moderate, or high risk (BASSC, 2005; Baird &Wagner, 2000). When developing their instruments, most agencies use research from their own state or jurisdiction (Baird & Wagner, 2000).

The actuarial model has been criticized for its rigidity. Because each family and each situation is unique, some argue that actuarial risk assessment does not allow caseworkers the ability to incorporate their own clinical judgment when it would be appropriate (BASSC, 2005). Ereth et al. state that "…A caseworker can sense things that an actuarial instrument would ignore or could not employ… Many characteristics of human subjects simply cannot be quantified empirically and actuarial models cannot easily account for rare events" (2003, p. 12). Critics fear that the restricted ability to

account for unique strengths, risks, and other factors not described within the confines of an actuarial tool, may ultimately result in an inaccurate assessment of risk.

Despite the aforementioned concerns, child welfare research overwhelmingly suggests that actuarial models have greater validity and reliability than consensus-based models in predicting future maltreatment (BASSC, 2005; Gambrill & Shlonsky, 2000; Baird &Wagner, 2000). In a study of the validity of risk assessment models, Baird and Wagner (2000) found that the actuarial model is more accurate in classifying a case to the potential risk levels. Some researchers posit that actuarial models are more reliable and valid than consensus-based models because they allow caseworkers to focus their assessment on a small set of factors with a strong statistical relationship to future abuse or neglect (BASSC, 2005). Actuarial instruments may be more reliable in part because the factors are more objective. For example, one risk factor that is commonly included in risk assessments is prior abuse. Some actuarial instruments simply ask 'whether or not' past abuse occurred, whereas some consensus-based models require the caseworker to determine if there were past incidents, if the incidents were 'isolated' or 'intermittent', as well as the severity of the past abuse (BASSC, 2005).

Baird and Wagner (2000) posit that, because actuarial-based systems have been shown to be more accurate than consensus-based systems, they therefore may improve decision-making by caseworkers. Further, by promoting greater consistency and accuracy of assessments, Baird and Rycus (2005) argue that applying the actuarial model to risk assessment may result in greater fairness to families that may otherwise be vulnerable to a potentially biased decision-making process.

Racial Disproportionality

Racial disproportionality, in this context, refers to the fact that racial and ethnic minority groups are represented in child welfare services at levels disproportionate to their numbers in the overall population (Courtney & Skyles, 2003). There is substantial research examining why this unequal representation exists. Courtney & Skyles posit two modes by which disproportionality may develop: "First, a racial or ethnic group can enter a particular child welfare population at a rate that is disproportionate to its presence in the overall population…Second, those members of a given racial or ethnic group who enter a particular child welfare population may exit that population at a different rate" (2003, p. 356). Evidence of both phenomena is abundant throughout the literature.

Fluke, et al. (2003) found that maltreatment reports to CPS hotlines for racial and ethnic minorities are more likely to be substantiated than for Whites. In a study of racial disproportionality in Illinois' Child Protective Services, Rolock and Testa state that,

> The overrepresentation of African American children in the child welfare system is as true for Illinois as for the nation as a whole. African American children constitute 19 % of the child population in Illinois, but they represent 46% of indicated reports of abuse and neglect and 76% of open child cases at the Illinois Department of Children and Family Services (2005, p. 119).

Other studies offer an explanation for why disproportionate levels exist at the investigation stage. Using data from a ten year period, Rolock and Testa (2005) found that, among cases investigated by Child Protective Services, African American children are indicated and substantiated at a significantly higher rate than white children. This finding was the same regardless of investigator race. Robert Hill (2006) cited ten additional studies that confirmed this finding. Hill only found two contradictions to these findings. He cited a 1999 study by Ards, Chung and Myers, which found that

substantiation rates for African Americans were actually lower in states with high proportions of African Americans. Additionally, Hill cited a study by Levine (1996) from upstate New York which found no significant differences in substantiation rates between African Americans and Caucasians. So despite these two contradictory claims, Hill found that the research overwhelmingly finds significant racial differences in the substantiation of reports of child abuse and neglect. These differences indicate that, upon referral, minority families are more likely to receive a substantiated report of abuse than white families.

Racial disproportionality also exists among children residing in out-of-home placements. In 1999, African American children made up 15 percent of the child population in the United States; however, they accounted for 45 percent of the children in out-of-home placements. This is a stark contrast to the proportions for white children. In the same year, while white children made up 60 percent of the child population, they accounted for 36 percent of the children in out-of-home placements (Derezotes & Poertner, 2005). Courtney and Skyles (2003) find that, once placed in out of home care, African American children are reunified at a slower rate than white children. In a study of 500,000 children in 11 states, Wulczyn, Brunner & George (2000) found that in each of these states, African American children were discharged from foster care at a slower rate than white or Hispanic children. Across all of the states combined, African American children exited foster care at a rate 19 percent slower than white children.

In his 2005 research on, "The Role of Race in Parental Reunification", Robert Hill cited four studies that found racial differences in rates of family reunification. In each case, African American children had lower rates of reunification than white

children. Courtney (1994) found that, regardless of age and type of out of home placement, African American children were reunified at half the rate of white children.

The above findings have led many researchers to the conclusion that racial disproportionality is the result of biased practices within the child welfare system. A report from the Casey-CSSP Alliance states that "theories about *organizational and systemic factors* contend that minority overrepresentation results from the decision-making processes of CPS agencies, the cultural insensitivity and biases of workers, governmental policies, and institutional or structural racism" (Hill, 2006, p. 8). In response to this notion, researchers have investigated decision points in the Child Protective Services Process where bias may occur. The King County Coalition on Racial Disproportionality identified six key points in CPS decision-making: reporting, intake and investigation, reunification efforts and services, placement, dependency and termination of parental rights, and pathways for exiting the system (Clark, Buchanan & Legters, 2008). Research shows that racial factors have an effect on decision-making at each of these stages (Derezotes, Poertner & Testa, 2005).

Considering the racially disproportionality in various stages of system involvement shown in the research cited above, and assertions of systemic bias, an important question to ask is whether systemic bias is a primary contributor to racial disproportionality, or whether disproportionality stems from a higher incidence of maltreatment among minority children. The National Incidence Study (NIS) provides data helpful to this inquiry.

Findings and Interpretations of The National Incidence Studies

The NIS is a "congressionally mandated, periodic research effort to assess the incidence of child abuse and neglect in the United States" (DHHS, 2010, p. 1). Specifically, the NIS is designed to attempt to measure *actual* maltreatment rates, that is, the rate that children are actually abused, as opposed to *official* maltreatment rates, which refer to maltreatment that is reported to Child Protective Services (Bartholet, 2009). There have been four National Incidence Studies, the NIS-1 of 1980, the NIS-2 of 1986, the NIS-3 of 1993, and the NIS-4 of 2006 (Drake & Johnson-Reid, 2011). Using data from child welfare agencies as well as mandated reporting sources (i.e. police, medical personnel and educators), the first three NIS reports found no statistically significant racial differences in the incidence of actual maltreatment rates.

With no evidence of significant racial differences among estimates of actual maltreatment rates, the National Incidence Studies have been almost universally interpreted in the literature as evidence that minority and white children are maltreated at the same rate (Drake & Johnson Reid, 2011). This interpretation indicates that racial disproportionality is caused by some reason other than actual maltreatment rates. Sedlak and Broadhurst wrote that,

> The NIS findings suggest that the different races receive differential attention somewhere during the process of referral, investigation, and service allocation, and that the differential representation of minorities in the child welfare population does not derive from inherent differences in the rates at which they are abused or neglected (1996, p. 8).

The 2006 wave of the National Incidence Study provided a picture of child maltreatment in the U.S. that was heretofore unseen. In contrast to previous studies, the NIS-4 *did* find significant racial differences in the incidence of abuse and neglect, with

data suggesting that African American children were maltreated at a higher rate than white children (Drake & Johnson-Reid, 2011). Supplemental analysis of the NIS-4 demonstrated that the difference was primarily due to a widening income gap between African American and white families between 1993 and 2006 (Sedlak, McPherson, & Das, 2010).

The correlation between low economic status and child maltreatment is supported in the literature "with both a strong theoretical and empirical basis" (Drake & Johnson-Reid, 2011, p. 18). Therefore, one might expect that as the economic conditions of whites and African Americans grow increasingly disparate, so too would the rates of maltreatment. However, in their interpretation of all four waves of NIS results, Drake and Johnson-Reid found that, after controlling for inflation, the finding of a significant change in income gap is not accurate. They write that, if Sedlak, et al. (2010) had included this effect, "they would have noted a slight decrease in the economic gap, rather than the claimed substantial increase" (2011, p. 18). The authors determined that "the income gap referenced in the supplementary analysis does not, in fact, exist and cannot therefore explain the NIS-4 findings" (Drake & Johnson-Reid, 2011, p. 18). Drake and Johnson-Reid posit an alternative explanation of the NIS findings. They write that a more thorough analysis of the data suggests that first three NIS reports *do not* actually demonstrate similar African-American/white maltreatment rates. In addition, their analysis of the NIS-4 finds that racial differences for estimated *actual* maltreatment rates are similar to the reported, or *official* maltreatment rates. In contradicting the disparity between actual and official maltreatment rates for African Americans, this argument also contradicts the assertion that biased CPS practices are to blame for racial

16

disproportionality. Ultimately, Drake and Johnson-Reid posit that "the correct interpretation of the NIS data is that our best evidence shows a stable and powerful overrepresentation of Blacks among maltreated children" (p. 19).

Elizabeth Bartholet (2009) also supports an overturn of the long-held empirical findings of the NIS studies. She writes,

> The NIS did indeed state that actual as opposed to official, maltreatment rates were the same for blacks and whites. Excellent research analyses conducted subsequently, however, have persuasively debunked this NIS assertion. And taken as a whole, the empirical literature demonstrates the overwhelming likelihood that actual black maltreatment rates are in fact significantly higher than white, because blacks suffer at significantly higher rates from risk factors that are known predictors of child maltreatment (Bartholet, 2009, p. 878).

In her critique of the NIS findings, Bartholet cites studies by Sheila Ards and Richard Barth, which found that the NIS failed to adequately capture the true incidence of maltreatment in African-American families. According to the authors, these failures were due to limitations in study methodology, including: a limited sample of community observers, limited data collected from urban centers, and the fact that no data was collected from family members (Bartholet, 2009).

The finding that, across NIS studies, rates of maltreatment have been higher among African American families than white families offers additional support to the position that the disproportionate representation of races involved in child welfare services is an accurate reflection of actual maltreatment rates. Bartholet notes in her research that African-American families are disproportionately characterized by risk factors for maltreatment such as severe poverty, substance abuse and single parenting. Some have argued that African-Americans are more likely to be reported to child-welfare services because they are more exposed to police, social workers and other mandated

17

reporters. This is commonly referred to as the "visibility bias." However, Bartholet writes that, "studies examining this claim, including the NIS-3, have repeatedly failed to find any support for the visibility bias theory" (2009, p. 906). Based on the disproportionate level of maltreatment risk factors among African American families, Bartholet argues that the disproportionate representation of African-American children in the child welfare system is to be expected (Bartholet, 2009). If it is true that racial levels of system involvement are an accurate reflection of actual maltreatment rates, then one cannot safely accept prior assertions that CPS decision making practices are biased and ultimately lead to racial disproportionality (Drake & Johnson-Reid, 2011).

Risk Assessment and Racial Disproportionality

Risk assessment instruments are a critical component in decision-making by child protective services. Therefore, considering claims that CPS decision-making practices may be biased and contribute to racial disproportionality, the effect of risk assessment on racial disproportionality should be given special attention.

There is substantial research on actuarial systems and their effect on racial-bias in child welfare outcomes. Given the rigid, quantitative nature of actuarial risk assessment models, some fear that as more CPS agencies implement their use, the problem of racial bias in decision-making will increase. Specifically, because actuarial models assess risk using factors such as income level, family size and number of caregivers in the home, critics of this system believe that African-American families will automatically be rated at higher risk levels than white families (Baird, 2005).

Considering the following research, one can see why the actuarial approach to risk assessment would raise this concern. Baird writes that "Maltreatment, particularly

neglect, is strongly correlated with poverty, the stress involved in being a single parent, and other factors that are more commonly found in African American homes" (2005, p.140). He cites the NIS-3, which reports that,

> Children in families with income of less than $15,000 a year are 44 times more likely to be neglected than children from higher-income families. Children in single-caregiver homes have an 87% greater risk of physical neglect than those in two-caregiver families. Children in the largest families are neglected at three times the rate of single-child families (Baird, 2005, p. 140).

Baird goes on to highlight the racial disparities found among these risk factors. He notes that 30.4% of African Americans live in homes with annual incomes less than $15,000, compared to 11.6% for whites. 52% of African American homes have a single female caregiver compared to 18% for white homes. Finally, 14% of African American homes have three or more children, compared with 9% of white homes (Baird, 2005). With such apparent differences among races for each of these risk factors, the critique of the actuarial model seems to have merit.

However, research on the actual effects of actuarial risk assessment does not support this concern. A study of three states using actuarial risk assessment models found that the instruments actually produced equitable results across races (Baird, 2005). Harris and Hackett also wrote that the use of actuarial decision-making tools at the investigation stage of the CPS process "appear(s) to reduce the impact of racial bias and consequential racial disproportionality in decisions made" (2008, p. 203). Baird argues that, ultimately, "these (actuarial) tools can help ensure that child welfare decisions are appropriate, consistent, and equitable for all families entering the child protection system" (2005, p. 146). Baird and Rycus (2005) note that few consensus-based instruments have actually been tested for reliability and validity.

<center>**Hypotheses**</center>

Null Hypothesis: The effect of race and ethnicity on child welfare outcomes will be the same in states that utilize a consensus-based risk assessment model and states that use an actuarial risk assessment model.

Research Hypothesis: Race and ethnicity will have a greater effect on child welfare outcomes in states that utilize a consensus-based risk assessment model than states that utilize an actuarial risk assessment model.

<center>**Methodology**</center>

Data Collection and Privacy Protection

The National Child Abuse and Neglect Data System (NCANDS) is a national, federally-funded data set used to track the incidence and type of child maltreatment reported in the U.S. The data set is publicly available to researchers for the purpose of studying child abuse. State child-welfare agencies submitted data to NCANDS including "all investigations or assessments of alleged child maltreatment that received a disposition in the reporting year" (NCANDS, 2011, p. IV). Components of the data include: child demographics, perpetrator demographics, type of maltreatment, investigation outcome, risk factors, and services provided as a result of the maltreatment investigation (NCANDS, 2011).

NCANDS has taken various measures to protect the privacy of the children included in this data set and to eliminate the possibility of identifying either the victim or perpetrator. First, all information submitted to NCANDS was encrypted by individual states to avoid the possibility of connecting the information contained within the dataset with the child's actual CPS record. To further ensure confidentiality, NCANDS modified

<center>20</center>

the data in the following ways: variables such as child's date of birth, child's county of residence, Worker ID, Supervisor ID, AFCARS ID, and Incident Date, are dropped from the distributable file and are not available to researchers; in counties with fewer than 1,000 records, the county variable is recoded; report dates are rounded to the 8th or the 23rd of the month; children older than 18 are assigned a code of "18 or older"; when applicable, perpetrator ages are recoded as "70 or older" and "under 18"; and finally, if there is a small number of records for a particular race in a given county, that race is recoded as "unknown." Records that involve a fatality received extra protection due to the rarity and severity of the outcome. In these cases, variables are recoded to mask all identifying information (U.S. Department of Health and Human Services, 2010).

Sample Selection

To determine which risk assessment models are in use and in which states, I contacted representatives from state child welfare agencies. Representatives from 22 agencies responded, identifying the risk assessment model used in that state, and whether that model is used state-wide. Of the states that responded, I narrowed the list to those that utilize either an actuarial or consensus-based risk assessment tool state-wide. In an effort to keep the study as representative of the overall U.S. population as possible, I attempted to select states from the North East, Midwest, Southern and Western regions. For each region, I selected pairs of states, including one state utilizing each type of risk assessment model. I also matched the regional pairs as closely as possible according to population and racial/ethnic proportions. I received the necessary information from child welfare agencies in two Northeastern states, New York and Massachusetts. However, in the NCANDS data set, data critical for this study was missing for New York; so

ultimately, the Northeastern states were dropped from my sample. Further, I did not receive the necessary information from agencies in southern states; therefore, this region is not represented in the sample. The lack of representation from all U.S. regions is a limitation of this study. Of the original 22 agencies that responded, Figure 2 shows the 6 states that fell within the aforementioned criteria, as well as the risk assessment model used in that state, and the racial/ethnic percentages of the overall population. As shown by the large difference differences in population size and racial/ethnic percentages, particularly in the Western states, I was unable to closely match states according to these characteristics.

Figure 2: Sample States with Model Type and Demographic Information

Region	State	Risk Assessment Model	Overall Population	% White	% African American	% Latino	% Other	% Multiracial
Midwest	Wisconsin	Consensus-Based	5,686,986	84.0	5.0	6.0	3.0	2.0
Midwest	Michigan	Actuarial	9,883,640	76.0	14.0	4.0	3.0	2.0
Midwest	Iowa	Consensus-Based	3,046,355	87.0	3.0	6.0	2.0	2.0
Midwest	Minnesota	Actuarial	5,303,925	84.0	5.0	4.0	5.0	2.0
West	California	Consensus-Based	37,253,956	41.0	6.0	37.0	11.0	5.0
West	Washington	Actuarial	6,724,540	72.0	3.0	10.0	10.0	5.0

(Kaiser Family Foundation, 2010; Personal Correspondence: Hainey, 9/11; Linn, 9/11, Martin, 9/11; Muender, 9/11; Rhoads, 9/11; Thompson, 9/11)

The NCANDS data set consists of 3,582,158 total records from the 50 states, the District of Columbia and Puerto Rico (U.S. Department of Health and Human Services, 2010). I will analyze the states selected for this study as six separate data sets with the following number of cases:

Figure 3: Sample Sizes

State	Original Sample	% Missing	Analytical Sample
Wisconsin	39,473	16.0	33,156
Michigan	194,651	1.1	192,433
Iowa	39,250	35.9	25,155
Minnesota	25,237	1.4	24,960
California	439,306	5.3	415,957
Washington	51,037	8.8	24,960

Variables

The dependent variables for this study include: 'Maltreatment Disposition', 'Post-Investigation Services', 'Juvenile Court Petition', and 'Removal'. 'Maltreatment Disposition' refers to the outcome of the CPS investigation, indicating whether maltreatment occurred in the investigated case. Potential outcomes that indicate maltreatment include 'substantiated', 'indicated', and 'alternative response, child is victim'. If the caseworker from the child welfare agency determines that maltreatment did occur according to any of these potential classifications, this variable is coded with a 'yes'. Potential outcomes indicating that maltreatment did not occur include 'unsubstantiated', 'closed no finding' or 'unsubstantiated, intentionally false report'. The 'Maltreatment Disposition' variable is coded with a 'no' if the caseworker from the child welfare agency determined that maltreatment did not occur based on any of these possible classifications.

The variable 'Post-Investigation Services' refers to services, such as family preservation counseling or parenting skills training, that may be provided to the child and/or family as a result of the maltreatment investigation. The variable is coded with a 'yes' if services were provided. The variable is coded with a 'no' if services were not provided.

The variable 'Juvenile Court Petition' refers to a legal petition filed with the Juvenile Court requesting that the court take some action in the child's case, usually that the child be declared a dependent of the Court (NCANDS, 2011). This variable is coded as a 'yes' if a petition was filed and as a 'no' if no petition was filed.

Finally, the variable 'Removal' refers to a child's removal from his or her biological home. The variable is coded as 'yes' if the child welfare agency removed a child from his or her home, and 'no' if the child was not removed. The data set originally provides information on removals by listing the date that a removal was made. However, for the purpose of this analysis, I created a dichotomous categorical variable to indicate simply whether the child was removed from the home.

I selected these variables for a number of reasons. First, each variable represents one potential stage in the investigation, planning, and service-provision stages of involvement by Child Protective Services (as displayed in Figure 1). Further, each variable represents varying degrees of systemic involvement. Specifically, provision of post-investigation services represents a lesser degree of systemic involvement than a petition to Juvenile Court. Removal from the home represents the most invasive degree of systemic involvement. Most importantly, I made these selections based on the significant role that risk assessment plays in decision-making by child welfare agencies at each stage represented by the variables.

My independent variable for this study is race/ethnicity. The data set includes separate variables for White, Black, Ethnicity (Latino), Asian, American Indian, and Native Hawaiian/Pacific Islander. For this analysis, I created one race/ethnicity variable with the possible outcomes set to 'White' (non-Latino), 'Black' (non-Latino), 'Latino',

'Other' and 'Multiracial'. Cases were coded as 'white' if the child was originally identified as white and non-Latino in the dataset, and 'black' if the child was originally identified as black and non-Latino in the dataset. Because of their relatively low percentages in this data set, I recoded Asian, American Indian, and Native Hawaiian/Pacific Islander (non-Latino) as 'other'. I recoded 'ethnicity' to 'Latino', which includes cases identified as Latino, or any combination of Latino and another race. The decision to classify Latinos in this manner was based on precedent set in previous studies (Broh, 2008). 'Multiracial' includes cases identified as more than one race, other than Latino.

Analytical Strategy

In this analysis, I will examine the relationship between race/ethnicity and the four child welfare outcomes in three states that utilize an actuarial risk-assessment model, and three states that utilize the consensus-based model. For each state, I will run frequencies for the independent variable and dependent variables. I will use contingency tables to examine the relationship between race and each of the dependent variables for each state. Column percentages for these tables will reveal the percentage of the dependent variable within each racial or ethnic group. Row percentages for these tables will reveal the percentages of each racial/ethnic group within the dependent variable. I will report the chi square for each of these cross-tabulations. However, because the samples are so large, chi square will inevitably show significance, so I will not use this test to draw conclusions about the hypotheses. Cramer's V is a measure of association that adjusts for sample size, so I will use this measure to show the strength of the association between the variables.

If there is no difference in the relationship between race/ethnicity and child-welfare outcomes in states using the actuarial or consensus-based risk assessment model, the results would support the null hypothesis. However, if the analysis shows a greater relationship between race/ethnicity and outcome in states that use the consensus-based risk assessment than those that use the actuarial model, the results support the research hypothesis: that states using the actuarial model produce less racially-biased outcomes than those using the consensus model.

Results

Analysis Results for California (Consensus-based model):

In California, 415, 957 cases of alleged child maltreatment were investigated in 2010. According to the NCANDS data set, a maltreatment disposition was made in 19.4 percent of these cases. 83.7 percent of maltreatment cases received post-investigation services, a Juvenile Court petition was filed in 30.7 percent of maltreatment cases, and a child was removed from the home in 39.3 percent of maltreatment cases (see table 1).

When comparing racial/ethnic percentages of the California population to investigated reports of maltreatment, we find that 41 percent of California's population is white (non-Latino), while only 23.6 percent of investigations involved white children. Conversely, blacks are about 6 percent of the population, yet account for 13 percent of CPS investigations. Similarly, 37 percent of the population is Latino, although this group makes up 57.7 percent of investigations. 11 percent of the population is classified as 'Other', and this group makes up 3.2 percent of investigations. 5 percent of the population is multiracial, and multiracial children make up 2.5 percent of investigations (see table 1). In the comparison between state population and CPS investigations, the

data suggests that white children are less likely to receive an investigation while black and Latino children are more likely to be investigated.

From the bivariate analysis, the Chi Square is 0.000 for the relationship between race/ethnicity and each of the dependent variables. Cramer's V is 0.019 for race/ethnicity and maltreatment dispositions, 0.05 for race/ethnicity and post-investigation services, 0.089 for race/ethnicity and Juvenile Court petitions, and 0.096 for race/ethnicity and removals. These values indicate a weak association between race/ethnicity and the dependent variables in California (see table 2).

Looking at the outcomes by race/ethnicity, contingency table analysis (see table 2) reveals that, using investigated cases as a benchmark, there were not substantial differences in the percentages. Among maltreatment dispositions, 25.1 percent of cases involved white children, 13.4 percent involved black children, 54.5 percent were Latino, 3.5 percent were classified as 'other', and 3.5 percent were multiracial. Among cases receiving post-investigation services, 24.3 percent involved white children, 13.9 percent were black children, 54.7 percent were Latino, 3.4 percent involved children classified as 'other', and 3.6 percent were multiracial. Of maltreatment cases in which a petition was filed with the Juvenile Court, 21.7 percent involved white children, 17.1 percent were black children, 53.9 percent were Latino, 2.9 percent were children classified as 'other', and 4.5 percent of cases involved multiracial children. Finally, of maltreatment cases in which a child was removed from the home, 24.3 percent involved white children, 16.8 percent were black children, 51.5 percent were Latino, 2.9 percent were children classified as 'other', and 4.5 percent were multiracial.

For this and all subsequent state results, Epsilon is given a value of 10 percentage points, and will indicate a substantial difference between values. The above results do not show substantial differences between the benchmark, investigated cases, and subsequent outcomes by race/ethnicity. This implies that, starting from the investigation stage, all racial/ethnic groups in California remain involved at consistent percentages across the various stages of CPS intervention. These percentages are displayed in figure 4.

Figure 4: California, 2010 Population and CPS Outcomes by Race/Ethnicity
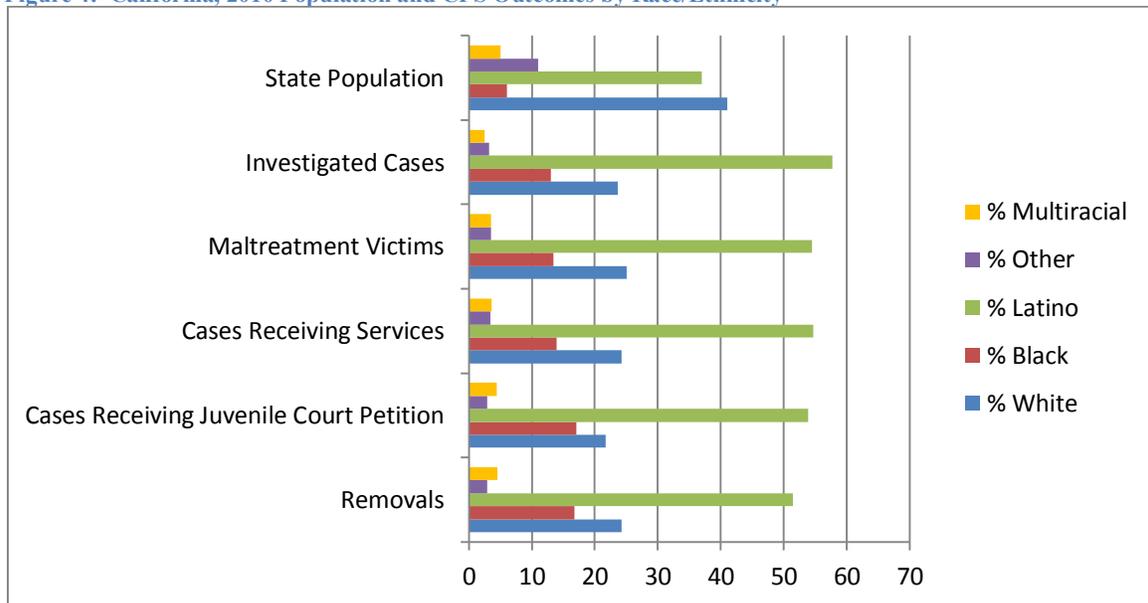
Examining the outcomes within the different racial/ethnic groups, results of the contingency table analysis (see table 2) hold implications for the equality of treatment between the different groups. The results show that 19.8 percent of cases involving white children received maltreatment dispositions. Percentages for other groups differ only slightly at this stage. 18.6 percent of cases involving black children received maltreatment dispositions, as did 19.2 percent for Latinos, 18.7 percent for children classified as 'other', and 23.2 percent for multiracial children. With regard to post-

investigation services, 81.2 percent of cases involving white children received this outcome. Again, results for other groups varied little. 86.8 percent of cases involving black children received services, 84 percent for Latinos, 81.9 percent for children classified as 'other', and 86.5 percent for multiracial children.

There were substantial differences between groups among Juvenile Court petition and removal percentages. 26.6 percent of cases involving white children received a petition to Juvenile Court. Two groups varied only slightly from white children. 25.7 percent of children classified as 'other' received a petition, as well as 30.4 percent for Latinos. However, 39 percent of cases involving black children, and 38.7 percent of cases involving multiracial children received a petition. Epsilon indicates a substantial difference between the percentage of Juvenile Court petitions for white children and percentages for black and multiracial children.

When looking at the removal percentages within race/ethnicity in California, we again find differences between the groups. A child was removed from the home in 38 percent of cases involving white children, 49.2 percent of cases involving black children, 37.2 percent for Latinos, 32.5 percent for children classified as 'other', and 50.3 percent for multiracial children. Epsilon indicates substantially higher removal percentages among black and multiracial children when compared to white, 'other' and Latino children. The analysis results for California suggest that when examining outcome percentages within race/ethnicity, black and multiracial children were substantially more likely than other groups to receive the two most restrictive CPS outcomes, Juvenile Court petitions and removal from the home. These percentages are displayed in figure 5.

29

Figure 5: California, 2010 CPS Outcomes within Race/Ethnicity
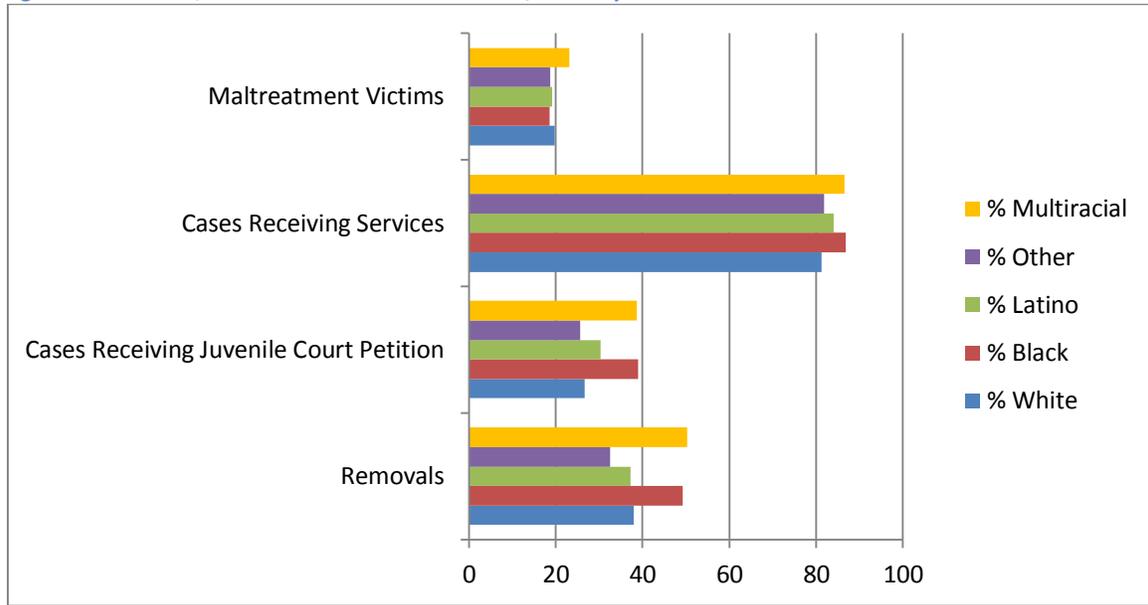
Analysis Results for Iowa (Consensus-Based Model):

In Iowa, 25,155 cases of alleged child maltreatment were investigated in 2010. According to the NCANDS data set, a maltreatment disposition was made in 41.3 percent of these cases. 71.6 percent of maltreatment cases received post-investigation services, a Juvenile Court petition was filed in 34.6 percent of cases, and children were removed from the home in 21.6 percent of maltreatment cases (see table 3).

When comparing racial/ethnic percentages of the Iowa population to investigated reports of maltreatment, we find that 87 percent of Iowa's population is white, and white children make up 76.9 percent of CPS investigations. 3 percent of Iowa's population is Black, and black children account for 11.3 percent of CPS investigations. 6 percent of Iowa's population is Latino, and Latino children make up 7 percent of investigated cases. 2 percent of Iowa's population is classified as 'other', and this group makes up 2.4 percent of investigations. Similarly, 2 percent of Iowa's population is multiracial, and multiracial children make up 2.4 percent of CPS investigations (see table 3). In the

30

comparison between the Iowa state population and CPS investigations, the data suggests that Latino, 'other', and multiracial children are investigated at percentages similar to their representation in the overall population. However, white children were less likely to be investigated by CPS, while this was more likely for black children.

From the bivariate analysis, the Chi Square for the relationship between race/ethnicity and each of the dependent variables is 0.000. Cramer's V is 0.048 for race/ethnicity and maltreatment dispositions, 0.041 for race/ethnicity and post-investigation services, 0.079 for race/ethnicity and Juvenile Court petitions, and 0.077 for race/ethnicity and removals. These values indicate a weak association between race/ethnicity and the dependent variables in Iowa (see table 4).

Looking at the outcomes by race/ethnicity, contingency table analysis (see table 4) reveals that, using investigated cases as a benchmark, there were only minor differences in the percentages. Among maltreatment dispositions, 74.7 percent of cases involved white children, 12 percent involved black children, 7.7 percent were Latino, 2.9 percent were classified as 'other', and 2.7 percent were multiracial. Among cases receiving post-investigation services, 74.1 percent involved white children, 11.9 percent involved black children, 7.8 percent were Latino, 3.1 percent were children classified as 'other', and 3.1 percent were multiracial. Of maltreatment cases in which a petition was filed with the Juvenile Court, 73.4 percent involved white children, 10.8 percent were black children, 7.8 were Latino, 4.1 percent were children classified as 'other', and 3.9 percent were multiracial. Finally, of maltreatment cases in which a child was removed from the home, 71.8 percent involved white children, 10.3 percent were black children, 9.6 percent were Latino, 4.1 percent were children classified as 'other', and 4.2 percent were multiracial.

The above results do not show substantial differences between the benchmark, investigated cases, and subsequent outcomes by race/ethnicity. This implies that, starting from the investigation stage, all racial/ethnic groups in Iowa remain involved at consistent percentages across the various stages of CPS intervention. These percentages are displayed in figure 6.

Figure 6: Iowa, 2010 Population and CPS Outcomes by Race/Ethnicity
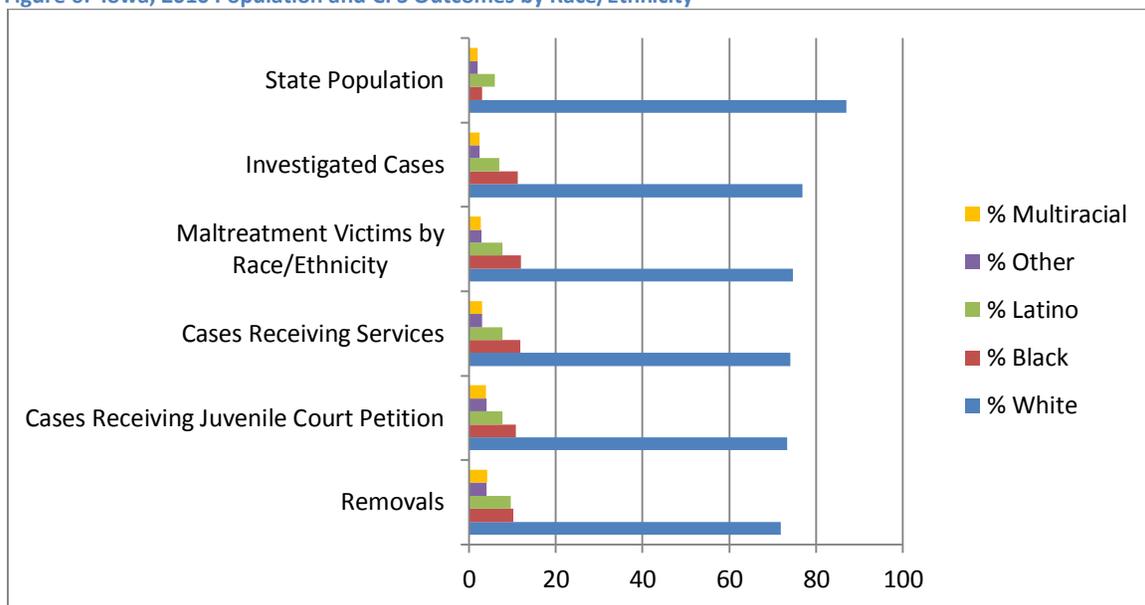
Examining child welfare outcomes within racial/ethnic groups, results of the contingency table analysis (see table 4) suggest implications for equality of treatment between the different groups. The results show that 40.1 percent of cases involving white children received maltreatment dispositions. Results for other groups do not differ substantially at this stage. 43.9 percent of cases involving black children received maltreatment dispositions, 45.8 percent for Latinos, 49.7 percent for children classified as 'other', and 46 percent for multiracial children. With regard to post-investigation services, 71.1 percent of cases involving white children received services. Again, percentages for other groups did not differ substantially. 71.1 percent of cases involving

32

black children received services, 72.8 percent for Latinos, 77.3 percent for children classified as 'other', and 80.5 percent for multiracial children.

The results for Iowa revealed substantial differences between groups among Juvenile Court petitions and removals. 34 percent of cases involving white children received a petition for Juvenile Court. 31.1 percent of cases involving black children received this outcome, as well as 34.8 percent for Latinos. However, at this stage, 49.2 percent of cases involving children classified as 'other', and 49.6 percent of cases involving multiracial children received a petition. Epsilon indicates a substantially higher percentage of Juvenile Court petitions for 'other' and multiracial children than for other groups.

When looking at the removal percentages within race/ethnicity in Iowa, we again find differences between the groups. A child was removed from the home in 20.7 percent of cases involving white children, 18.5 percent of cases involving black children, 26.8 percent for Latinos, 30.8 percent for children classified as 'other', and 33.3 percent for multiracial children. Epsilon indicates substantially higher removal percentages among children classified as 'other' and multiracial children when compared to white and black children. The bivariate analysis results for Iowa suggest that children classified as 'other' and multiracial children were substantially more likely than other groups to receive the two most restrictive CPS outcomes, Juvenile Court petitions and removal from the home. These percentages are displayed in figure 7.
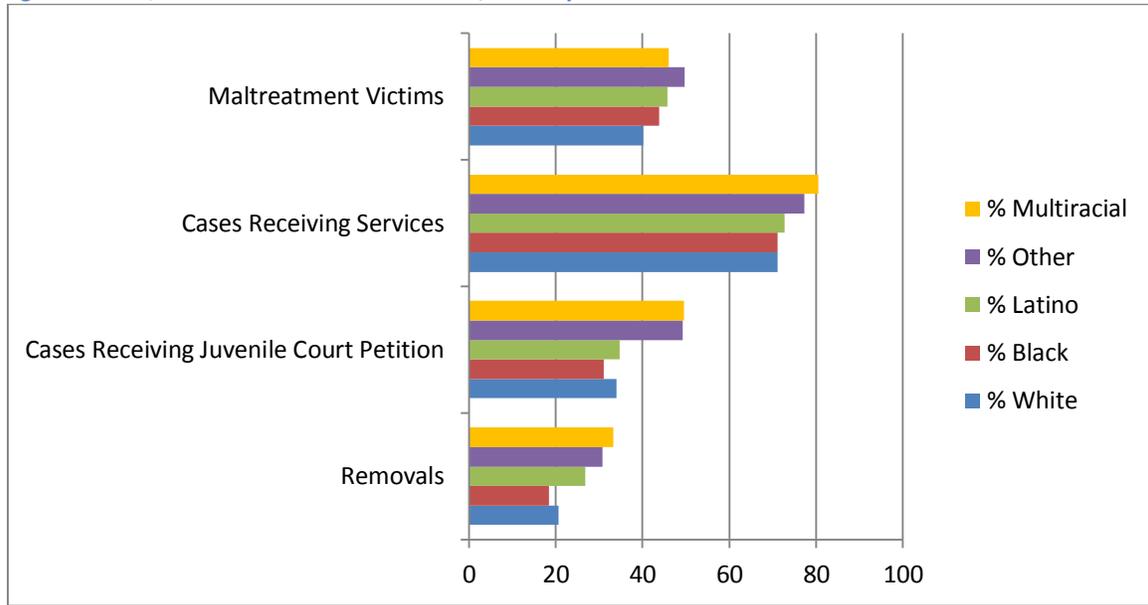
Analysis Results for Wisconsin (Consensus-Based Model):

In Wisconsin, 33,156 cases of alleged child maltreatment were investigated in 2010. According to the NCANDS data set, a maltreatment disposition was made in 13.3 percent of these cases. 64.4 percent of maltreatment cases received post-investigation services, a Juvenile Court petition was filed in 13.1 percent of cases, and a child was removed from the home in 37.8 percent of maltreatment cases (see table 5).

When comparing racial/ethnic percentages of the Wisconsin population to investigated reports of maltreatment, we find that 84 percent of Wisconsin's population is white, yet white children comprise only 54 percent of CPS investigations. 5 percent of Wisconsin's population is black, while black children make up 28.5 percent of investigations. 6 percent of the population is Latino, and Latino children make up 9.9 percent of investigations. 3 percent of Iowa's population is classified as 'other', and this group makes up 4.4 percent of investigations. 2 percent of the population is multiracial, and multiracial children make up 3.2 percent of CPS investigations. In the comparison

34

between state population and investigations, the data suggests that white children were less likely to receive a CPS investigation, while this outcome was more likely for black children. Investigation percentages for Latino, 'other' and multiracial children were similar to their representation in the overall population (see table 5).

From the bivariate analysis, the Chi Square for the relationship between race/ethnicity and maltreatment dispositions, Juvenile Court petitions and removals is 0.000. The Chi Square for the relationship between race/ethnicity and post-investigation services is 0.03. Cramer's V is 0.049 for race/ethnicity and maltreatment dispositions, 0.05 for race/ethnicity and post-investigation services, 0.122 for race/ethnicity and Juvenile Court petitions, and 0.117 for race/ethnicity and removals. These values indicate a weak association between race/ethnicity and the dependent variables in Wisconsin (see table 6).

Looking at child welfare outcomes by race/ethnicity, contingency table analysis (see table 6) reveals that, using investigated cases as a benchmark, there were overall only minor differences in the percentages. Among maltreatment dispositions, 57.9 percent of cases involved white children, 23.5 percent involved black children, 9.5 percent were Latino, 5.6 percent were children classified as 'other', and 3.5 percent involved multiracial children. Among cases receiving post-investigation services, 56.9 percent involved white children, 24.3 percent were black, 9.1 percent were Latino, 5.8 percent were children classified as 'other', and 4 percent involved multiracial children. Of cases that received a Juvenile Court petition, 69.5 percent involved white children, 11.4 percent involved black children, 7.8 percent were Latino, 5.9 percent involved children classified as 'other', and 5.4 percent were multiracial children. Finally, at the removal stage, 52.7 percent of cases involved white children, 29 percent involved black children, 9.8 percent

were Latino, 4.3 percent were children classified as 'other', and 4.2 percent of cases involved multiracial children. Epsilon indicates that, when compared with their percentage at the investigation stage, white children had a substantially lower percentage at the Juvenile Court petition stage. Besides this result, the results for Wisconsin did not show substantial differences between investigated cases and subsequent outcomes by race/ethnicity, suggesting that in other stages, all racial/ethnic groups in Wisconsin remain involved in the various stages of CPS intervention at consistent percentages. These percentages are displayed in figure 8.

Figure 8: Wisconsin, 2010 Population and CPS Outcomes by Race/Ethnicity
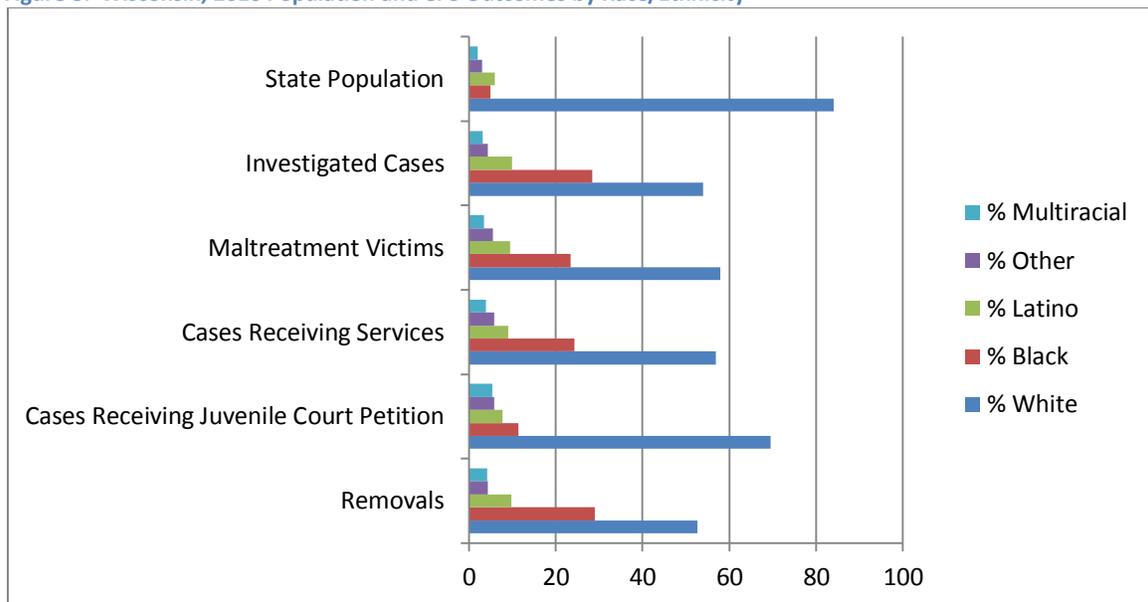
Examining the outcomes within the different racial/ethnic groups, results of the contingency table analysis (see table 6) reveal findings that hold implications for the equality of treatment between the different groups. The results show that 14.3 percent of cases involving white children received a maltreatment disposition. Percentages for other groups do not vary substantially at this stage. 11 percent of cases involving black children received a maltreatment disposition, 12.8 percent for Latinos, 16.8 percent for

36

children classified as 'other', and 14.9 percent for multiracial children. With regard to post-investigation services, 63.3 percent of cases involving white children received this outcome, as did 66.5 percent for black children, 61.6 percent for Latinos, 66.6 percent for children classified as 'other', and 73.5 percent for multiracial children. Epsilon indicates that the difference was substantial at this stage between percentages for multiracial children in comparison with white and Latino children.

There were also substantial differences between groups among Juvenile Court petitions and removals. 15.7 percent of cases involving white children received a Juvenile Court petition, as did 6.4 percent for black children, 10.7 percent for Latinos, 13.7 percent for children classified as 'other', and 20 percent for multiracial children. Epsilon indicates a substantially higher percentage among multiracial children (20 percent) compared with black children (6.4 percent), although when using percentages for white children as a benchmark, there were not substantial differences across the board.

When looking at the removal percentages within race/ethnicity in Wisconsin, there were again differences between the groups. A child was removed from the home in 34.5 percent of cases involving white children, 46.7 percent of cases involving black children, 39.1 percent for Latinos, 28.6 percent for children classified as 'other', and 45.2 percent for multiracial children. Epsilon indicates that at the removal stage, black and multiracial children received substantially higher percentages than white children or children classified as 'other'. These percentages are displayed in figure 9.

Figure 9: Wisconsin, 2010 CPS Outcomes within Race/Ethnicity
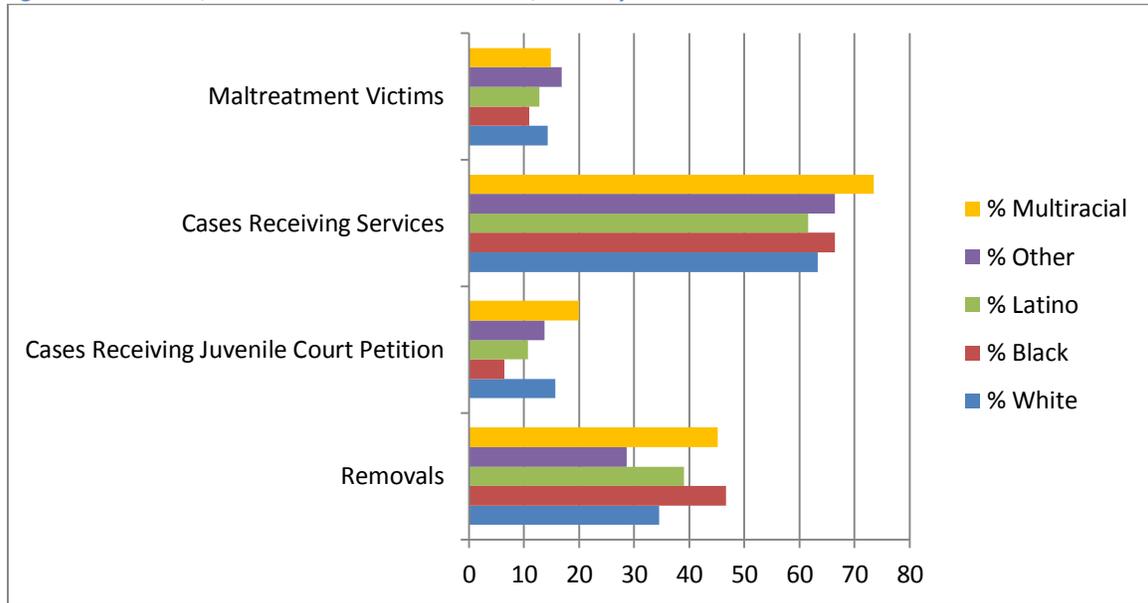
Summary of Analysis Results for States Using the Consensus-Based Risk Assessment Model:

Examining the racial/ethnic percentages in the overall population when compared with racial/ethnic percentages for CPS investigations, a distinct pattern emerges among these three states. In California, Iowa and Wisconsin, white children were less likely to be the subject of a CPS investigation when compared to the overall population. However, in each of these states, black children experienced the opposite effect; they were more likely to be investigated by CPS.

Through bivariate analysis, the chi square reveals a statistically significant relationship between race/ethnicity and the dependent variables in each of these states. However, it is important to note that this value is not relevant in drawing conclusions about the hypothesis due to the large sample size. Cramer's V reveals a weak association between race and the dependent variables in each state using the consensus-based model.

38

In general among these states, once cases reach the investigations stage, racial/ethnic percentages remain relatively constant across subsequent stages of CPS involvement. One exception was in Wisconsin, where the percentage of petitions to the Juvenile Court was about 15 percent higher than the investigation percentage for white children, yet 17.1 percent lower than the investigation percentage for black children. Otherwise, Epsilon did not indicate substantial differences in outcomes by race/ethnicity.

Examining the involvement in CPS outcomes within racial/ethnic groups, another pattern emerges: the analysis shows substantial differences at the Juvenile Court petition and removal stages. In all three states, multiracial children experienced substantially higher percentages than white children at both of these outcome stages. Black children also experienced substantially higher percentages of removals than white children in California and Wisconsin. It is notable that within racial/ethnic groups, these disparities occur at the two most restrictive stages of CPS involvement.

The aforementioned patterns suggest three findings regarding child welfare outcomes among states that use the consensus-based risk assessment model. First, considering the differences between race/ethnicity percentages in state populations and in CPS investigations in these states, disproportionality between black and white children seems to manifest in the child welfare system prior to, or during the investigation stage. Second, once cases are investigated, racial/ethnic percentages remain generally consistent throughout subsequent CPS involvement. Third, black and multiracial children generally experience higher percentages of the most restrictive CPS outcomes, Juvenile Court petitions and removals from the home.

Analysis Results for Michigan (Actuarial Model):

In Michigan, 192,433 cases of alleged child maltreatment were investigated in 2010. According to the NCANDS data set, a maltreatment disposition was made in 18.2 percent of these cases. 37.9 percent of maltreatment cases received post-investigation services, a Juvenile Court petition was filed in 24.5 percent of cases, and a child was removed from the home in 16.8 percent of maltreatment cases (see table 7).

When comparing racial/ethnic percentages of the Michigan population to investigated reports of maltreatment, we find that 76 percent of Michigan's population is white, while 62.1 percent of investigations involve white children. Conversely, 14 percent of the population is black, yet black children make up 27.3 percent of CPS investigations. 4 percent of the population is Latino and this group makes up 4.2 percent of investigations. 3 percent of Michigan's population is classified as 'other', and children in this category make up 0.8 percent of CPS investigations. 2 percent of Michigan's population is multiracial and multiracial children constitute 5.6 percent of investigations (see table 7). In the comparison between state population and CPS investigations, the data suggests that white children are less likely to be investigated, while this is more likely for black children. Results for other racial groups in Michigan revealed CPS investigation percentages similar to their representation in the overall population.

From the bivariate analysis, the Chi Square for the relationship between race/ethnicity and each of the dependent variables is 0.000. Cramer's V is 0.026 for race/ethnicity and maltreatment dispositions, 0.087 for race/ethnicity and post-investigation services, 0.074 for race/ethnicity and Juvenile Court petitions, and 0.093 for race/ethnicity and removals.

40

These values indicate a weak association between race/ethnicity and the dependent variables in Michigan (see table 8).

Looking at child welfare outcomes by race/ethnicity, contingency table analysis (see table 8) reveals that, using investigated cases as a benchmark, there were only minor differences in the percentages. Among maltreatment dispositions, 61.5 percent of cases involved white children, 26.5 percent involved black children, 4.5 percent were Latino, 0.7 percent involved children classified as 'other', and 6.8 percent involved multiracial children. Among cases receiving post-investigation services, 65.9 percent involved white children, 21.7 percent involved black children, 4.8 percent were Latino, 0.8 percent was children classified as 'other', and 6.8 percent involved multiracial children. Of maltreatment cases in which a Juvenile Court petition was filed, 55.7 percent involved white children, 30.1 percent involved black children, 4.8 percent were Latino, 0.7 percent was children classified as 'other', and 8.9 percent were multiracial. Finally, of maltreatment cases in which a child was removed from the home, 52.7 percent involved white children, 32.8 percent were black children, 3.9 percent were Latino, 0.8 percent was children classified as 'other', and 9.9 percent were multiracial. Epsilon does not show substantial differences between percentages of investigated cases and subsequent outcomes by race/ethnicity. This implies that, starting from the investigation stage, all racial/ethnic groups in Michigan remain involved at consistent percentages across the various states of CPS involvement. These percentages are displayed in figure 10.

Figure 10: Michigan, 2010 Population and CPS Outcomes by Race/Ethnicity
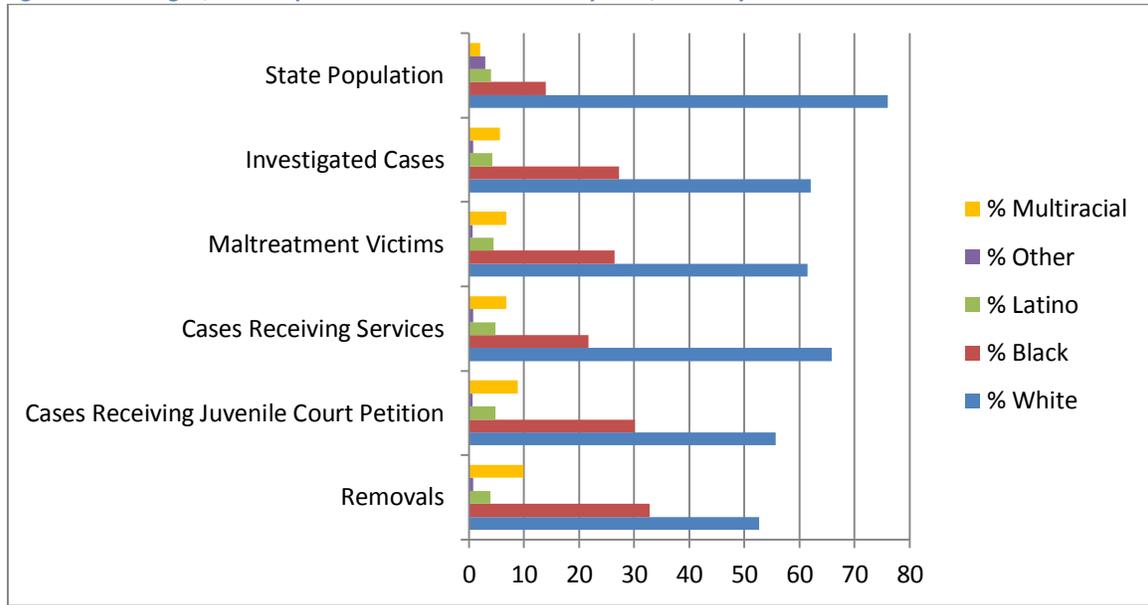
Examining the outcomes within the different racial/ethnic groups, results of the contingency table analysis (see table 8) hold implications for the equality of treatment between the different groups. The results show that 18 percent of cases involving white children received maltreatment dispositions. Percentages for other groups do not differ substantially at this stage. 17.7 percent of cases involving black children received a maltreatment disposition, as did 19.6 percent of cases involving Latinos, 16 percent for children classified as 'other', and 22 percent for multiracial children. With regard to post-investigation services, 40.6 percent of cases involving white children received services, 31 percent of cases involving black children, 40.4 percent for Latinos, 44.3 percent for children classified as 'other', and 38.4 percent for multiracial children. Unlike in other states, percentages of Juvenile Court petitions within groups did not differ substantially. 22.2 percent of cases involving white children received a petition, as did 27.8 percent of cases involving black children, 26.1 percent for Latinos, 22.5 percent for children classified as 'other', and 32.1 percent for multiracial children.

42

When looking at the removal percentages within race/ethnicity in Michigan, the results reveal substantial differences. A child was removed from the home in 14.4 percent of cases involving white children, 20.8 percent of cases involving black children, 14.6 percent for Latinos, 18.6 percent for children classified as 'other', and 24.5 percent for multiracial children. Epsilon indicates that the percentage of multiracial children removed from the home was substantially higher than the percentage for white children. The percentages for outcomes within race/ethnicity are displayed in figure 11.

Figure 11: Michigan, 2010 CPS Outcomes within Race/Ethnicity
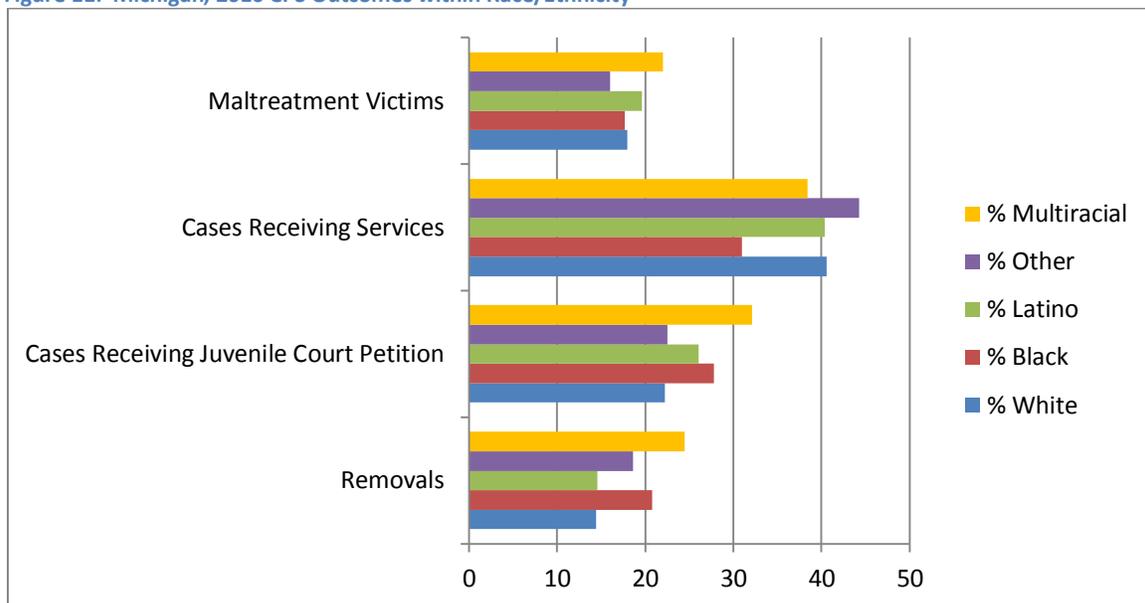
Analysis Results for Minnesota (Actuarial Model):

In Minnesota, 24,960 cases of alleged child maltreatment were investigated in 2010. According to the NCANDS data set, a maltreatment disposition was made in 18.5 percent of these cases. 66.9 percent of maltreatment cases received post-investigation services, a Juvenile Court petition was filed in 30.8 percent of cases, and a child was removed from the home in 36.4 percent of maltreatment cases (see table 1).

When comparing racial/ethnic percentages of the Minnesota population to investigated reports of maltreatment, we find that 84 percent of Minnesota's population is white, whereas white children only make up 52.1 percent of CPS investigations. 5 percent of Minnesota's population is black, yet black children make up 17.7 percent of investigations. 4 percent of the population is Latino and this group comprises 11.1 percent of investigations. 5 percent of Minnesota's population is classified as 'other', and this group accounts for 9.2 percent of investigations. 2 percent of the population is multiracial and multiracial children make up 9.9 percent of CPS investigations (see table 9). In the comparison between state population and CPS investigations, the data suggests that white children are less likely to receive an investigation, whereas this is more likely for black children.

From the bivariate analysis, the Chi Square for the relationship between race/ethnicity and each of the dependent variables is 0.000. Cramer's V is 0.065 for race/ethnicity and maltreatment dispositions, 0.082 for race/ethnicity and post-investigation services, 0.07 for race/ethnicity and Juvenile Court petitions, and 0.09 for race/ethnicity and removals. These values indicate a weak association between race/ethnicity and the dependent variables in Minnesota (see table 10).

Looking at the outcomes by race/ethnicity, contingency table analysis (see table 10) reveals that, using investigated cases as a benchmark, there were not substantial differences in the percentages. Among maltreatment dispositions, 45.9 percent of cases involved white children, 20.5 percent involved black children, 11.6 were Latino, 9.4 percent were children classified as 'other', and 12.5 percent were multiracial. Among cases receiving post-investigation services, 43.3 percent involved white children, 21.5

percent involved black children, 11.6 percent were Latino, 10.3 percent involved children classified as 'other', and 13.3 percent were multiracial. Of maltreatment cases in which a petition was filed with the Juvenile Court, 46.9 percent involved white children, 18.5 percent involved black children, 9.8 percent were Latino, 11.8 percent of cases involved children classified as 'other', and 12.9 percent were multiracial children. Finally, of maltreatment cases in which a child was removed from the home, 42.9 percent involved white children, 20.9 percent involved black children, 9.9 percent were Latino, 12 percent were children classified as 'other', and 14.3 percent were multiracial. In the results above, Epsilon does not indicate substantial differences between the benchmark, investigated cases, and subsequent outcomes by race/ethnicity. This implies that, starting from the investigation stage, all racial/ethnic groups in Minnesota remain involved at consistent percentages across the various stages of CPS intervention. These percentages are displayed in figure 12.

Figure 12: Minnesota, 2010 Population and CPS Outcomes by Race/Ethnicity

45
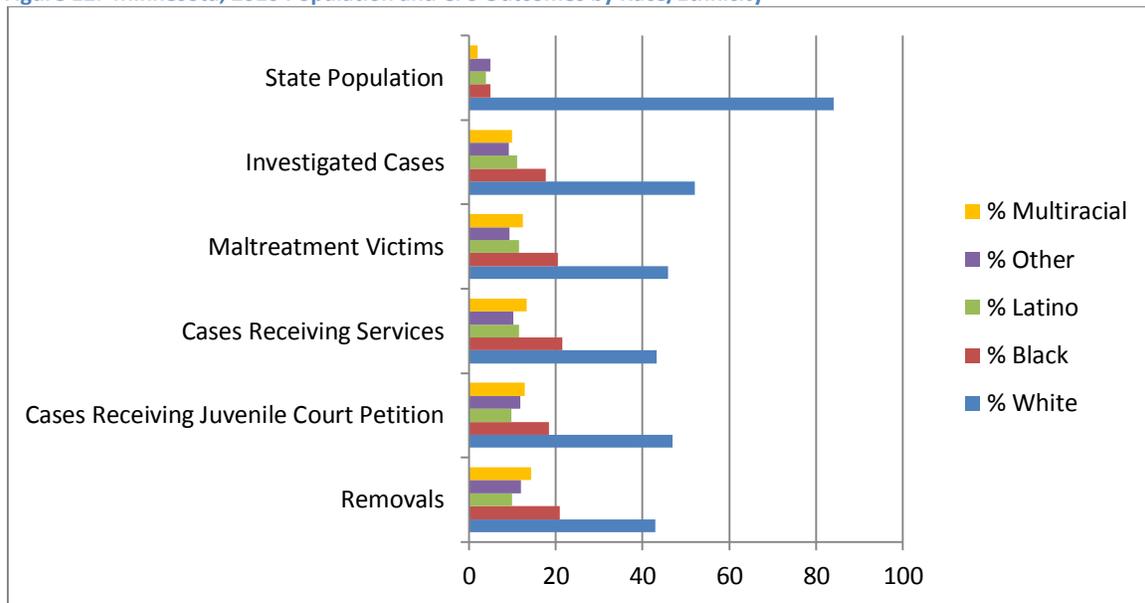
Examining the outcomes within the different racial/ethnic groups (see table 10), the results show that 16.3 percent of cases involving white children received maltreatment dispositions. Results for other groups did not differ substantially at this stage. 21.4 percent of cases involving black children received maltreatment dispositions, as did 19.3 percent for Latinos, 19 percent for children classified as 'other', and 23.4 percent for multiracial children. With regard to post-investigation services, 63 percent of cases involving white children received services, 70 percent of cases involving black children, 66.9 percent of cases involving Latinos, 73.2 percent for children classified as other, and 71.3 percent of multiracial children received services. At this stage, there were a substantially higher percentage of children classified as 'other' receiving services than white children. 31.5 percent of cases involving white children received a Juvenile Court petition, as did 27.8 percent of cases involving black children, 26.1 percent for Latinos, 38.5 percent for children classified as 'other' and 31.8 percent for multiracial children. At the removal stage, a child was removed from the home in 34 percent of cases involving white children, 37.1 percent of cases involving black children, 30.9 percent for Latinos, 46.3 percent for children classified as 'other', and 41.5 percent for multiracial children. Epsilon indicates substantially higher removal percentages among children classified as 'other' in comparison with the percentage for white children. The analysis results for Minnesota suggest that, overall, racial/ethnic groups are treated similarly at the different outcome stages. However, children classified as 'other' were substantially more likely to receive services and be removed from the home than white children. The percentages for Minnesota CPS outcomes within race/ethnicity are displayed in figure 13.
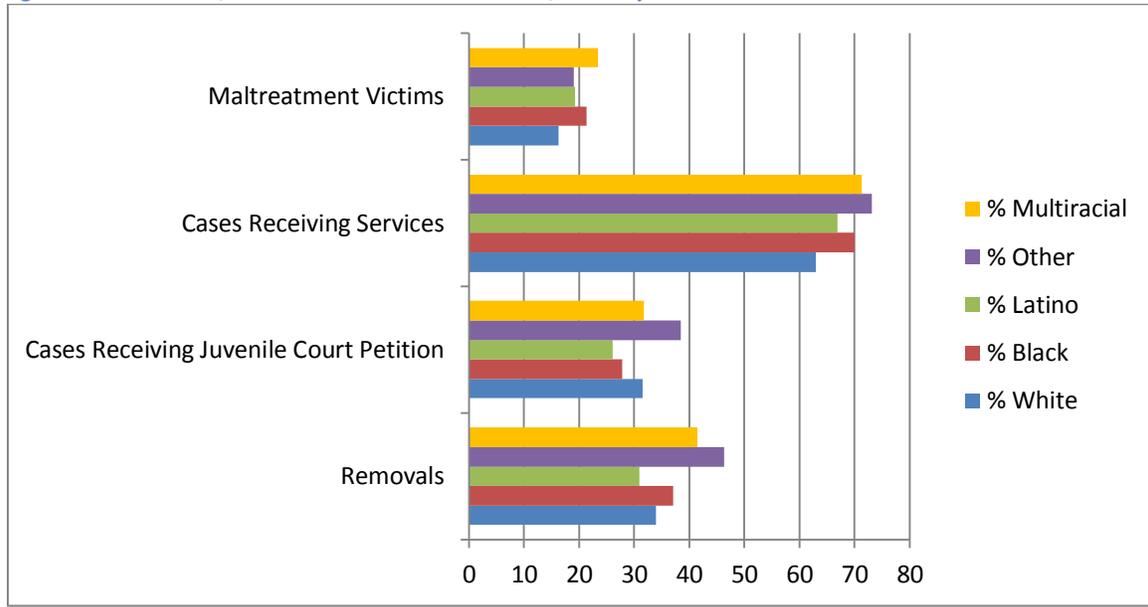
Analysis Results for Washington (Actuarial Model):

In Washington, 46,524 cases of alleged child maltreatment were investigated in 2010. According to the NCANDS data set, a maltreatment disposition was made in 14.3 percent of these cases. 55.8 percent of maltreatment cases received post-investigation services, 34 percent of cases received a Juvenile Court petition, and a child was removed from the home in 36.3 percent of maltreatment cases (see table 11).

When comparing racial/ethnic percentages of the Washington population to investigated reports of maltreatment, we find that 72 percent of Washington's population is white, while white children make up 60 percent of CPS investigations. 3 percent of Washington's population is black, and black children make up 8.2 percent of investigations. 10 percent of Washington's population is Latino and Latino children account for 15.6 percent of investigations. 10 percent of the population is classified as 'other' and children from this group comprise 8.2 percent of CPS investigations. 5 percent of Washington's population is multiracial and multiracial children account for 8

47

percent of investigations. In the comparison between state population and CPS investigations, the data suggests that white children are less likely to be investigated by CPS. However, other groups are investigated at rates closer to their representation in the overall population.

From the bivariate analysis, the Chi Square for the relationship between race/ethnicity and each of the dependent variables is 0.000. Cramer's V is 0.029 for race/ethnicity and maltreatment dispositions, 0.045 for race/ethnicity and post-investigation services, 0.054 for race/ethnicity and Juvenile Court petitions, and 0.048 for race/ethnicity and removals. These values indicate a weak association between race/ethnicity and the dependent variables in Washington (see table 12).

Looking at the outcomes by race/ethnicity, contingency table analysis (see table 12) reveals that, using investigated cases as a benchmark, there were not substantial differences in the percentages. Among maltreatment dispositions, 58 percent of cases involved white children, 7.4 percent involved black children, 16.2 percent involved Latino children, 9.2 percent were children classified as 'other', and 9.2 percent were multiracial. Among cases receiving post-investigation services, 57.8 percent involved white children, 6.9 percent involved black children, 16.4 percent were Latino, 8.7 percent were children classified as 'other', and 10.2 percent involved multiracial children. Of maltreatment cases in which a petition was filed with the Juvenile Court, 56.5 percent involved white children, 7.1 percent involved black children, 16.1 percent were Latino, 8.9 percent were children classified as 'other', and 11.4 percent were multiracial. Finally, of maltreatment cases in which a child was removed from the home, 57.3 percent involved white children, 7.5 percent involved black children, 15.9 percent were Latino,

48

8.4 percent were children classified as 'other', and 10.9 percent were multiracial. The above results do not show substantial differences between the benchmark, investigated cases, and subsequent outcomes by race/ethnicity. This implies that, starting from the investigation stage, racial/ethnic groups in Washington remain involved at consistent percentages across the various stages of CPS intervention. These percentages are displayed in figure 14.

Figure 14: Washington, 2010 Population and CPS Outcomes by Race/Ethnicity
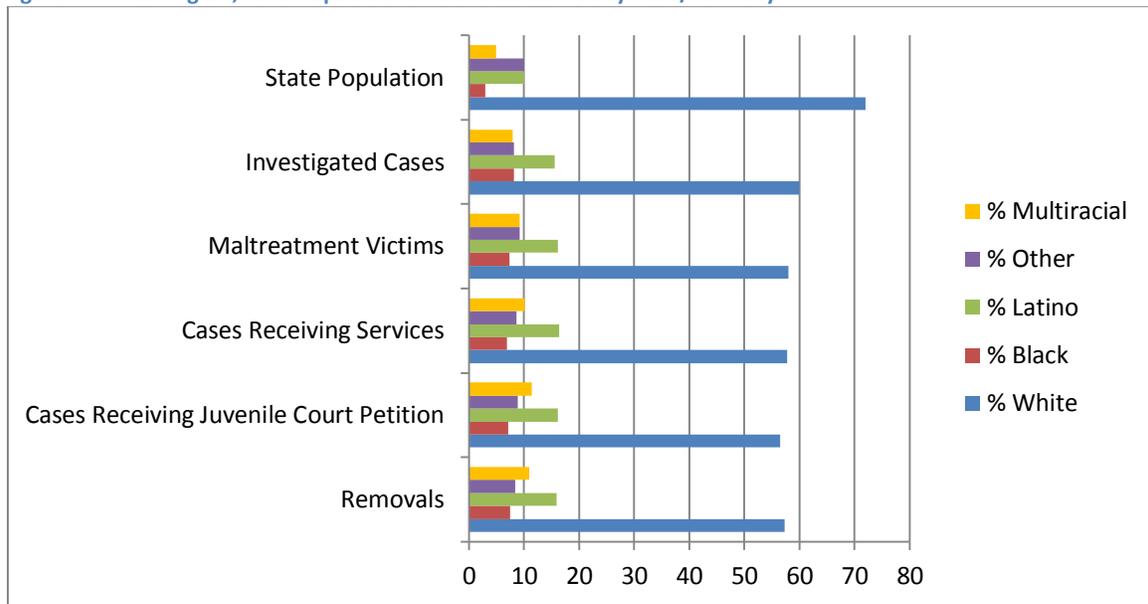
Examining the outcomes within the different racial/ethnic groups, results of the contingency table analysis (table 12) show that 13.8 percent of cases involving white children received a maltreatment disposition. Percentages for other groups at this stage do not differ substantially. 12.8 percent of cases involving black children received a maltreatment disposition, as did 14.9 percent for Latinos, 16 percent for cases involving children classified as 'other', and 16.6 percent for multiracial children. With regard to post-investigation services, 55.6 percent of cases involving white children received

services, 55.2 percent of cases involving black children, 56.4 percent for Latinos, 52.5 percent for children classified as 'other', and 61.6 percent for multiracial children.

Unlike in other states, results for Washington did not reveal substantial differences within racial/ethnic groups at the Juvenile Court petition and removal stages. Regarding Juvenile Court petitions, 33.2 percent of cases involving white children received a petition, as did 32.5 percent of cases involving black children, 33.7 percent for Latinos, 33.7 percent for children classified as 'other', and 42 percent for multiracial children. With regard to removals, a child was removed from the home in 35.9 percent of cases involving white children, 37 percent of cases involving black children, 35.6 percent for Latinos, 33.1 percent for children classified as 'other', and 43 percent for multiracial children. Using Epsilon, the results do not indicate substantial differences in outcome percentages within race/ethnicity. These results suggest that different racial/ethnic groups received similar treatment at the different outcome stages in Washington. The percentages for CPS outcomes within race/ethnicity are displayed in figure 15.

Figure 15: Washington, 2010 CPS Outcomes within Race/Ethnicity
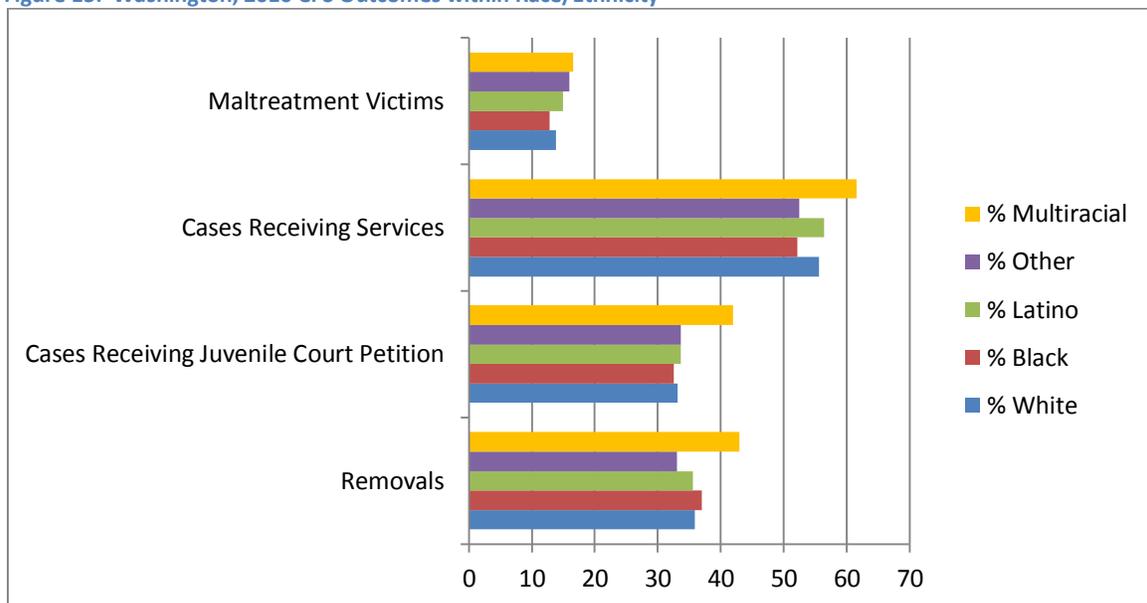
Summary of Analysis Results for States Using the Actuarial Risk Assessment Model:

In looking at the racial/ethnic percentages in the overall population in comparison with racial/ethnic percentages for CPS investigations, a pattern emerges similar to that of the states using the consensus-based model. In Michigan, Minnesota and Washington, white children were less likely to be investigated by CPS in relation to their representation in the overall population. In Michigan and Minnesota, black children were more likely to be the subject of a CPS investigation.

Through bivariate analysis, the chi square reveals a statistically significant relationship between race/ethnicity and each of the dependent variables in these three states. Cramer's V reveals a weak association between race and the dependent variables in each state using the actuarial model. Once cases in these states reached the investigation stage, racial/ethnic percentages did not reflect substantial differences across subsequent stages of CPS involvement. This finding was similar to the states using the consensus-based model. However, when examining the involvement of CPS outcomes within racial/ethnic groups, some differences did emerge. In Michigan, removal percentages for multiracial children were substantially higher than the percentages for white children. Also among removals, children classified as 'other' in Minnesota experienced a substantially higher removal percentage than white children. As was true among the consensus-based states, these differences occurred at the most restrictive stage of CPS intervention.

The aforementioned patterns suggest three findings regarding child welfare outcomes among states that use the actuarial risk-assessment model. First, considering the

differences between race/ethnicity percentages in state populations and in CPS investigations in these states, disproportionality between black and white children again seems to manifest prior to, or during the investigation stage. Second, once cases are investigated, racial/ethnic percentages do not differ substantially throughout subsequent stages of CPS involvement. Third, when differences in outcome percentages do occur within groups, they occur among minority groups at the most restrictive stage of CPS intervention.

Summary of Results Comparing States Using Consensus-Based and Actuarial Risk Assessment Models:

When comparing the results for the group of states that use the consensus-based risk assessment model to the group using the actuarial model, four key similarities emerge. First, in both sets of states, there was a notable difference between black and white children when comparing racial/ethnic percentages of the overall population to percentages of CPS investigations. It appears that black children are more likely to be investigated by CPS, while the opposite is true for white children.

Second, bivariate analysis revealed a weak association between race and the dependent variables in all six states. This finding supports the null hypothesis that the effect of race and ethnicity on child welfare outcomes is same regardless of the type of risk assessment model. Third, when examining CPS outcomes by race/ethnicity, once cases reach the investigation stage in states using either model, racial/ethnic groups tend to remain involved at consistent percentages throughout subsequent stages of CPS intervention. Finally, when looking at the outcome results within racial/ethnic groups in both sets of states, the results showed substantial differences within minority groups,

most commonly multiracial children, at the most restrictive stages of intervention: petitions to the Juvenile Court and removal from the home.

Discussion

The purpose of this study was to explore assertions that the process of risk assessment may be racially biased, thus contributing to the problem of racial disproportionality in the child welfare system. The study examines the relationship between race/ethnicity and various child welfare outcomes in states that utilize the consensus-based model and states that utilize the actuarial model for risk assessment. The results indicate three main findings. First, states using the consensus-based model produced results similar to those from states using the actuarial model. Second, disproportionality is apparent when comparing racial/ethnic percentages in the overall population with CPS investigations, yet racial/ethnic percentages in subsequent CPS outcomes remain relatively consistent. Finally, differential treatment among racial/ethnic groups tends to occur at the two most restrictive stages of intervention: Juvenile Court petitions and removals.

Effects of Risk Assessment: The Consensus-Based Model v. The Actuarial Model

When a child welfare agency responds to alleged child maltreatment, there are critical decision-points that guide subsequent interventions. In order to promote the best interests of the child and to prevent inappropriate or potentially harmful outcomes, such as unnecessary out-of-home placement or further maltreatment to the child, accurate and appropriate decision-making by caseworkers is critical. In an effort to improve decision-making, most child welfare agencies utilize a risk assessment tool to guide caseworkers in the decision-making process (BASSC, 2005). Use of the risk-assessment tool by child welfare agencies began over thirty years ago, and subsequent research indicates that this

has improved the accuracy, reliability, and consistency in decision-making by caseworkers (BASSC, 2005; Baird & Wagner, 2000; Wiebush, Frietag & Baird, 2001).

In general, risk assessment tools fall into two main categories, consensus-based and actuarial (Gambrill & Shlonsky, 2000). The consensus-based model incorporates research and theories on child welfare in order to organize the caseworker's clinical assessment of risk (Baird & Wagner, 2000; BASSC, 2005). It has been described as a comprehensive model which allows caseworkers the ability to exercise their clinical judgment in evaluating risk factors (BASSC, 2005). In this regard, the model relies heavily on the discretion and experience of the caseworker in predicting future maltreatment (Gambrill & Shlonsky, 2000). As discussed in the literature review, some researchers have criticized the consensus-based model, asserting that the subjective nature of the model enables biased decision-making. Child welfare researchers concerned with the problem of racial disproportionality have specifically asserted that the use of this model may ultimately contribute to racial disproportionality (Baird & Wagner, 2000; Gambrill & Shlonsky, 2000; McDonald & Marks, 1991; Bay Area Social Services Consortium, 2005). Despite this critique, the literature notes that few consensus-based instruments have actually been tested for validity or reliability (Baird & Rycus, 2005).

The actuarial risk assessment model incorporates a limited number of specific factors understood through longitudinal research to predict future maltreatment. In using this model, the caseworker weighs these factors to determine the level of risk (Baird & Wagner, 2000; BASSC, 2005). The actuarial model has been criticized for its rigidity. In particular, some researchers have cited concern that caseworkers performing an actuarial risk assessment do not have the ability to account for unique circumstances that

may not be represented in the risk assessment tool. This is problematic, in that the assessment could potentially unfairly or inappropriately classify families to higher or lower levels of risk, in turn, leading to inappropriate outcomes (Ereth et al., 2003). However, research on the actual effects of actuarial risk assessment does not support this concern. Some researchers have claimed that the actuarial model produces valid and reliable results when tested for the ability to accurately predict future maltreatment (Baird, 2005). In fact, specifically in response to concerns of racial disproportionality, some argue that use of the actuarial model appears to reduce impact of racial bias and produce equitable results across races (Harris & Hackett, 2008). For these reasons, and despite the aforementioned critique of the model, child welfare researchers tend to favor the actuarial model, concluding that the higher level of reliability will lead to greater fairness in decision-making (Baird & Wagner, 2000; BASSC, 2005; Gambrill & Shlonsky, 2000).

Considering the supposed objectivity of the actuarial model and the supposed subjectivity of the consensus-based model, one might expect to find differences in the relationship between race/ethnicity and child welfare outcomes in states that use different models. However, the results of this study did not indicate such a difference. Using Cramer's V to test the strength of the association between race/ethnicity and child welfare outcomes, the analysis revealed a weak association between these variables in each state, regardless of risk assessment model. This suggests that the consensus-based model does not produce more biased results than the actuarial model.

In order to examine the involvement of racial and ethnic groups across various points of systemic intervention, this study calculated racial/ethnic percentages at four

55

different child welfare outcomes. Each of the outcomes represented in the study is identified in the literature as key a CPS decision-making point in which a risk-assessment model is utilized (Clark, Buchanan & Letgers, 2008). The results indicate that, once a case is investigated, racial/ethnic percentages in subsequent interventions remain relatively constant in states using the consensus-based model as well as states using the actuarial model. Racial disproportionality did not increase or decrease according to the use of the consensus-based model or the actuarial model, suggesting that one model is not more biased than the other.

Disproportionality at the Investigation Stage

Debate over which risk assessment model best serves children arose out of concerns related to fairness in the child welfare system, specifically regarding the problem of racial disproportionality (Derezotes, Poertner, & Testa, 2005). Racial disproportionality refers to the overrepresentation of minority children in the child welfare system in comparison with their representation in the overall population (Derezotes, et al., 2005; Courtney & Skyles, 2003). Some research suggests that one way in which racial disproportionality may develop is that racial/ethnic groups enter the system at disproportionate rates (Courtney &Skyles, 2003). For example, in their study of the Illinois Department of Human Services, Rolock and Testa (2005) found that while African American children made up only 19 percent of the child population in the state, they accounted for 46 percent of substantiated reports of maltreatment. Their research notes that the overrepresentation of minority children was just as evident nationwide (Rolock & Testa, 2005). The present study also produced findings that suggest racial disproportionality upon entry into the child welfare system. When comparing

56

racial/ethnic percentages of the state populations with racial/ethnic percentages of CPS investigations, the results show decreased representation by white children and increased representation by minority children. This finding was consistent across all states in this study. Prior research identifies two primary explanations for why racial and ethnic groups enter the child welfare system at disproportionate rates. While these two explanations are in some ways contradictory, they should not be taken as mutually exclusive.

One of these potential contributors to disproportionality at the outset of child welfare system involvement is the racially disproportionate reporting of child maltreatment. Some argue that this is due to a "visibility bias", in which minorities have greater exposure to social workers, police, emergency room doctors, and other mandated reporters of child maltreatment, and are thus more likely to be reported (Bartholet, 2009; Sedlak & Broadhurst, 1996). Still, others argue that minorities are more likely than white families to be reported for child maltreatment regardless of the exposure to mandated reporters. This effect has been labeled as "community bias" (Rolock & Testa, 2005). Much of the research on racial disproportionality suggests that maltreatment rates among white families and minority families are similar, and therefore visibility bias and community bias are most commonly viewed as a problem in which minorities are over reported in relation to the incidence of maltreatment among minority families (Derezotes, Poertner, & Testa, 2005). However, if white and minority families are maltreated at the same rate yet maltreatment reporting is affected by bias, there is also the possibility that white children may be under reported and thus left in dangerous situations (Bartholet, 2009).

Other research contends that racial disproportionality is due largely to higher rates of actual maltreatment among minorities (Bartholet, 2009; Drake & Johnson-Reid, 2011; Sedlak & Broadhurst, 1996). As mentioned in the literature review, the National Incidence Study (NIS) is a periodic effort to estimate actual maltreatment rates. Interpretations of past NIS studies posited that maltreatment rates were basically equal among whites and minorities. This conclusion has been largely used in research on racial disproportionality to support the argument that minority children are unfairly over represented in the system (Bartholet, 2009; Drake & Johnson-Reid, 2011; Sedlak & Broadhurst, 1996). However, recent analyses of the National Incidence Studies concluded that, while racial disproportionality does exist, the rates of estimated actual maltreatment do in fact appear to be higher among minorities, and official rates of maltreatment appear to be similar to the estimated actual rates (Bartholet, 2009; Drake & Johnson-Reid, 2011). To be clear, these analyses do not suggest that minorities are inherently more likely to maltreat their children. Rather, the literature positing this interpretation portrays disproportionality as a result of other societal conditions. Specifically, risk factors highly associated with child maltreatment, such as poverty and single parent homes, are more common among minority families (Baird, 2005; Bartholet, 2009; Drake & Johnson-Reid, 2011). The true nature of racial disproportionality is a complicated picture to unravel. Either of the aforementioned (and possibly other) hypotheses may play a role in causing the racially disproportionate system involvement.

Differential Treatment among Highly Restrictive Outcomes

Risk assessment tools assist child welfare agencies in determining the risk of future maltreatment to a child. The results of the assessment in turn guide decisions about agency intervention. Specifically, the results of the assessment allow the agency to direct families with lower risk to lower levels of intervention, such as involvement with a community service provider. Similarly, families with the highest levels of risk can be identified as potentially in need of the most intensive services (Baird & Rycus, 2005). As mentioned previously, the dependent variables used in this study represent CPS outcomes and these outcomes range from least to most intensive forms of intervention. An examination of the racial/ethnic percentages within these outcomes provides insight as to whether the groups received equal treatment with regard to receiving the various outcomes. The results of this study indicate that, in both sets of states, while groups generally received similar treatment at the earlier, less restrictive outcomes, black and multiracial children were more likely than other groups to receive a Juvenile Court petition or be removed from the home.

There are various reasons why such a pattern may occur. One possibility is that decisions to invoke a Juvenile Court petition or to remove a child from the home were made appropriately, in accordance with a high level of risk for the children involved. However, this study does not include information on the risk factors involved in each case. Even if risk factors were known, we would not be certain if the assessment of risk was made appropriately in accordance with the actual presence of high risk for maltreatment. This uncertainty invites the possibility that biased risk assessment may have contributed to differential treatment among groups. As differences occurred for

minorities among the more restrictive stages, this interpretation would suggest that bias is occurring in the form of assigning higher risk levels to minorities than to white children. If high risk classifications and their corresponding outcomes are being influenced by racial bias, this holds implications for both children receiving inappropriately high risk classifications as well as those others affected by the same bias, receiving inappropriately low classifications. Specifically, this could mean unnecessary court involvement or out-of-home placement for those unfairly placed at high risk levels. Likewise, this could result in others, inappropriately assigned low risk classifications, being left in situations where they did not receive a needed service or intervention. A child in this situation may be left at risk for future maltreatment.

The findings mentioned above hold implications for, and pose further questions related to, concerns over the effect of risk assessment on racial disproportionality in the child welfare system. The results suggest that the effect of race/ethnicity on child welfare outcomes was similar, regardless of the state's risk assessment model. It has been suggested previously in the literature that use of the actuarial model will produce more racially equitable child welfare outcomes (Harris & Hackett, 2008). These results do not support this suggestion. The findings of this study indicate an apparent presence of racial disproportionality as children enter the child welfare system. While there are theories as to why this may be, more extensive research would be required to offer an explanation specific to the results of this study. Finally, the results showed that minority groups tended to receive differential treatment among the most restrictive stages of intervention. Again, more extensive research would be required in order to identify if these differences

were an accurate reflection of differing levels of risk, the result of a flawed system, or a combination of both.

Limitations

There were a number of limitations to this study. First, risk factors were not included as a variable in the analysis. When a risk assessment is conducted, the result is used to determine the appropriate interventions (U.S. Department of Health and Human Services, 2003; Baird &Rycus, 2005). Without knowing the risk factors identified in each case, one cannot speculate as to whether interventions corresponded appropriately with the presence of risk factors in that case.

Second, while the results indicate racial disproportionality when examining state population percentages in comparison with the percentages of investigated reports, the origin of this disproportionality remains unknown. As suggested by contradictory interpretations of NIS data, actual maltreatment rates are extremely difficult, if not impossible to obtain. Child maltreatment is often hidden or unreported, so it is easy to under or over estimate actual maltreatment rates. For this reason, one cannot know whether white and minority children in this study were maltreated at similar or disproportionate rates. However, the inclusion of estimates of actual maltreatment rates for the states included in this study could provide at least some insight in this regard.

Further, as mentioned in the description of the CPS process, some reports of child maltreatment are screened out prior to investigation if the intake worker determines that the report does not meet the state's statutory guidelines for maltreatment. Inclusion of child maltreatment reporting data in this study would provide the racial/ethnic percentages of reports received by CPS. This information would provide insight as to

whether those percentages were consistent with the percentages of investigated reports, or if there racial/ethnic percentages differed substantially between those stages, which would suggest a contribution to disproportionality at the reporting stage.

This study includes comparison of states based on their risk assessment model, although the analysis does not control for the many other differences between the states that could influence the incidence of maltreatment. Some of these key differences would include the state wide incidence of factors related to predictors of child maltreatment such as: median household income, substance abuse rates, single-parent households, rates of intimate partner violence and family size.

Finally, there were a high percentage of missing cases in the data sets for California and Iowa. Typically, anything over 10 percent missing cases is problematic for a statistical analysis. 16 percent of California's cases were missing, and 35 percent of Iowa's cases were missing. Many cases were coded as missing because the information on race/ethnicity was missing or unknown. If cases involving one race/ethnicity were coded as missing more frequently than another, this may have skewed the percentages for those states, and thereby affected the overall study results.

Future Research

Future research should further explore the effects of different risk assessment models while incorporating data on risk factors as well as controls for differences between states. This would allow for more accurate comparisons between states that use different models. This would also provide a better understanding for how risk assessment models affect outcome decisions, and the extent to which risk factors correspond with child welfare outcomes. Specifically in response to the results of this study, incorporating

data on risk factors would provide better insight as to why differences were prevalent among Juvenile Court petitions and removals and not among less restrictive interventions.

Future research should focus on how to improve estimated measurements of actual child maltreatment rates. Improving this measurement is important in order to better understand the true nature of child maltreatment in the United States, and specifically the nature of disproportionality. A better understanding of the disparity between actual and official maltreatment rates would give child welfare agencies, service providers and policy makers a better idea of whether racial disproportionality is more a product of risk factors that are disproportionately present in minority communities, or whether the problem has more to do with biased system practices. Improving understanding in this area would also give policy makers a better idea of where to focus resources and efforts to confront racial disproportionality.

Policy Recommendation

While some have claimed that the actuarial risk assessment model will lead to more equitable child welfare outcomes, the overall lack of support for this hypothesis suggests that confronting racial disproportionality is not as simple as choosing the right risk assessment tool. The consensus-based model is widely criticized for its subjectivity. The actuarial model has received its share of criticism for categorizing families to higher risk classifications based on the presence of pre-determined risk factors. The most significant difference identified in the literature is that the actuarial model tests well for reliability and validity. However, research on the topic also acknowledges that the consensus model has not been thoroughly tested (Gambrill & Shlonsky, 2000). Further,

this and other studies fail to show a difference between risk assessment models in terms of their effect on the relationship between race/ethnicity and outcomes. Additional research needs to be conducted on consensus-based and actuarial risk assessment models that includes more sophisticated controls for risk factors and differences between states before one model can be recommended over another as an effective way to confront racial disproportionality. In the meantime, it is important that child welfare agencies continue to make efforts to conduct fair risk assessment. An important step in the right direction would be training for caseworkers on recognizing risk factors for maltreatment and conducting objective risk assessments.

Conclusion

This study produced three main findings regarding the effect of race/ethnicity on child welfare outcomes in states using different risk assessment models. First, the results suggest that race/ethnicity had a similar effect on child welfare outcomes in each state included in the study, regardless of the risk assessment model used in that state. The lack of difference between states does not support predictions that states using the actuarial model will produce more equitable child welfare outcomes than states using the consensus-based model. Ultimately, more research is needed before one risk assessment model can be recommended as a means to confront possible racial bias in the child welfare system. Second, racial/ethnic percentages of CPS investigations were disproportionate to racial/ethnic percentages in the overall population. Beyond the investigation stage, results of this study indicate that racial/ethnic percentages for subsequent outcomes remain relatively consistent. This finding supports prior research stating that racial/ethnic groups enter the child welfare system at disproportionate rates.

Efforts to accurately understand and confront this phenomenon need to continue. Finally, the results of this study suggest differential treatment for black and multiracial children at the most restrictive stages of child welfare system intervention: Juvenile Court petitions and removal from the home. This finding raises questions about whether these interventions are implemented appropriately according to the presence of high risk for future maltreatment.

Works Cited

Baird, C. (2005). The Effect of Risk Assessments and Their Relationship to Maltreatment Recurrence Across Races. In Derezotes, D., Poertner, J. & Testa, M. (Ed.), *Race Matters in Child Welfare: The Overrepresentation of African American Children in the System* (pp. 1-23). Washington D.C: CWLA Press.

Baird, C., & Rycus, J. S. (2005).The contribution of decision theory to promoting child safety. *The APSAC Advisor,* 2-10.

Baird, C., & Wagner, D. (2000). The relative validity of actuarial- and consensus-based risk assessment systems. *Children and Youth Services Review, 22*(11/12), 839-871.

Bartholet, E. (2009). The Racial Disproportionality Movement in Child Welfare: False Facts and Dangerous Directions. *Arizona Law Review,* 51, 871-932.

BASSC. (2005). *Risk and safety assessment in child welfare: Instrument comparisons.* No. 2). Berkeley, CA: University of California at Berkeley.

Baumann, D., Law, J., Sheets, J., Reid, G., & Graham, J. (2005). Evaluating the effectiveness of actuarial risk assessment models. *Children and Youth Services Review, 27*, 465-490.

Broh, C. (2008). *Racial Identity and Government Classification.* Consortium on Financing Higher Education.

Courtney, M. (1994).Factors Associated with the reunification of foster children with their families. *Social Service Review*, 68, 81-108.

Courtney, M., & Skyles, A. (2003).Racial disproportionality in the child welfare system. *Children and Youth Services Review, 25*(5/6), 355-358.

Clark, P., Buchanan, J., & Legters, L. (2008). Taking action on racial disproportionality in the child welfare system. *Child Welfare, 87*(2), 319-334.

Department of Health and Human Services (2010). NIS-4 Home Page. https://www.nis4.org/nishome.asp (accessed October 8, 2011).

Derezotes, D. & Poertner, J. (2005). Factors Contributing to the Overrepresentation of African American Children in the Child Welfare System. In Derezotes, D., Poertner, J. &Testa, M. (Ed.), *Race Matters in Child Welfare: The Overrepresentation of African American Children in the System* (pp. 1-23). Washington D.C: CWLA Press.

Derezotes, D., Poertner, J., & Testa, M. (2005). *Race matters in child welfare: The overrepresentation of African American children in the system*. Washington, DC: CWLA Press.

Drake, B. & Johnson-Reid, M. (2011). NIS Interpretations: Race and the National Incidence Studies of Child Abuse and Neglect. *Children and Youth Services Review.*33, 16-20.

Ereth, J., Johnson, K. & Wagner, D. (2003). *New Mexico Children Youth and Families Department: Foster Provider Risk Assessment Study*. Children's Research Center.

Fluke, J., Yuan, Y. Y., Hedderson, J., & Curtis, P. (2003). Disproportionate representation of race and ethnicity in child maltreatment: Investigation and victimization. *Children and Youth Services Review, 25*(5/6), 359-373.

Gambrill, E., & Shlonsky, A. (2000). Risk assessment in context. *Children and Youth Services Review, 22*(11/12), 813-837.

Harris, M., & Hackett, W. (2008). Decision points in child welfare: An action research model to address disproportionality. *Children and Youth Services Review*, 30, 199-215.

Hill, R. (2005). The Role of Race in Parental Reunification. In Derezotes, D., Poertner, J. & Testa, M. (Ed.), *Race Matters in Child Welfare: The Overrepresentation of African American Children in the System* (pp. 1-23). Washington D.C: CWLA Press.

Hill, R. (2006). *Synthesis of research on disproportionality in child welfare: An update.* Casey-CSSP Alliance for Racial Equity in the Child Welfare System. http://www.cssp.org/reform/child-welfare/other-resources/synthesis-of-research-on-disproportionality-robert-hill.pdf. (accessed October 1, 2011).

Kaiser Family Foundation (2010). *Kaiser State Health Facts*. Statehealthfacts.org. (accessed March 23, 2012).

Lyle, C. G., & Graham, E. (2000). Looks can be deceiving: Using a risk assessment instrument to evaluate the outcomes of child protection services. *Children and Youth Services Review, 22*(11/12), 935-949.

McDonald, T., & Marks, J. (1991). A review of risk factors assessed in child protective services. *Social Service Review, 65*(1), 112-132.

National Child Abuse and Neglect Data System (NCANDS). (2011). *NDACAN Dataset Number 165 User's Guide and Codebook.* Cornell University. Ithaca, New York.

Rolock, N. &Testa, M. (2005). Indicated Child Abuse and Neglect Reports: Is the Investigation Process Racially Biased? In Derezotes, D., Poertner, J. &Testa, M. (Ed.), *Race Matters in Child Welfare: The Overrepresentation of African American Children in the System* (pp. 119-130). Washington D.C: CWLA Press.

Sedlak, A. & Broadhurst, D. (1996). Third National Incidence Study on Child Abuse and Neglect, Final Report. *Washington, D.C United States Department of Health and Human Services.*http://library.childwelfare.gov/cwig/ws/library/docs/gateway. (accessed October 7, 2011).

Sedlak, A., McPherson, K., & Das, B. (2010). Supplementary Analysis of Race Differences in Child Maltreatment Rates in the NIS-4.*Washington D.C. United States Department of Health and Human Services, Administration on Children, Youth and Families.*http://www.acf.hhs.gov/programs/opre/abuse_neglect/natl_incid/reports/supp_analysis/nis4_supp_analysis_race_diff_mar2010.pdf. (accessed October 7, 2011).

U.S. Census Bureau.(2010). *State and County Quickfacts*. http://quickfacts.census.gov/qfd/states/36000.html. (accessed December 20, 2010).

U.S. Department of Health and Human Services (2003). Child Protective Services: A Guide for Caseworkers. *Child Welfare Information Gateway.*http://www.childwelfare.gov/edtoolkit/pdfs/neglect_ch5.pdf . (accessed October 14, 2011).

U.S. Department of Health and Human Services. (2003). Child Protective Services: A Guide for Caseworkers. *Child Welfare Information Gateway.*http://www.childwelfare.gov/pubs/usermanuals/cps/cpsd.cfm. (accessed October 14, 2011).

Wald, M.S., &Woolverton, M. (1990). Risk Assessment: The emperor's new clothes? *Child Welfare*, 69, 483-511.

Waldfogel, J. (1998). Rethinking the Paradigm for Child Protection. *The Future of Children,* 8(1).

Wiebush, R., Freitag, R., & Baird, C. (2001). Preventing Delinquency Through Improved Child Protection Services. *Juvenile Justice Bulletin*. Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice, 1-20.

Wulczyn, F., Brunner, K., & George, R. (2000). *An Update from the Multisystemic Foster Care Data Archive: Foster Case Dynamics 1983-1998.* Chicago: Chapin Hall Center for Children at the University of Chicago.

Table 1: California, 2010: Child Protective Services Univariate Data

	%	N
Outcomes		
Victims of Maltreatment	19.4	415,957
Services Provided	83.7	80,610
Juvenile Court Petitions	30.7	80,610
Removals	39.3	80,610
Race/Ethnicity		
White	23.6	415,957
Black	13.0	415,957
Latino	57.7	415,957
Other	3.2	415,957
Multiracial	2.5	415,957

Table 2: California, 2010: Results of Contingency Table Analysis of Race/Ethnicity and CPS Outcomes

	% White	% Black	% Latino	% Other	% Multiracial	N	Chi Square	Cramer's V
Victims of Maltreatment								
By Race/Ethnicity	25.1	13.4	54.5	3.5	3.5	415,957	0.000	0.019
Within Race/Ethnicity	19.8	18.6	19.2	18.7	23.2			
Cases Receiving Services								
By Race/Ethnicity	24.3	13.9	54.7	3.4	3.6	80,610	0.000	0.05
Within Race/Ethnicity	81.2	86.8	84.0	81.9	86.5			
Cases Receiving Juvenile Court Petition								
By Race/Ethnicity	21.7	17.1	53.9	2.9	4.4	80,610	0.000	0.089
Within Race/Ethnicity	26.6	39.0	30.4	25.7	38.7			
Removals								
By Race/Ethnicity	24.3	16.8	51.5	2.9	4.5	80,610	0.000	0.096
Within Race/Ethnicity	38.0	49.2	37.2	32.5	50.3			

Table 3: Iowa, 2010: Child Protective Services Univariate Data

	%	N
Outcomes		
Victims of Maltreatment	41.3	25,155
Services Provided	71.6	10,382
Juvenile Court Petitions	34.6	10,382
Removals	21.6	10,382
Race/Ethnicity		
White	76.9	25,155
Black	11.3	25,155
Latino	7.0	25,155
Other	2.4	25,155
Multiracial	2.4	25,155

Table 4: Iowa, 2010: Results of Contingency Table Analysis of Race/Ethnicity and CPS Outcomes

	% White	% Black	% Latino	% Other	% Multiracial	N	Chi Square	Cramer's V
Victims of Maltreatment								
By Race/Ethnicity	74.7	12.0	7.7	2.9	2.7	25,155	0.000	0.048
Within Race/Ethnicity	40.1	43.9	45.8	49.7	46.0			
Cases Receiving Services								
By Race/Ethnicity	74.1	11.9	7.8	3.1	3.1	10,382	0.000	0.041
Within Race/Ethnicity	71.1	71.1	72.8	77.3	80.5			
Cases Receiving Juvenile Court Petition								
By Race/Ethnicity	73.4	10.8	7.8	4.1	3.9	10,382	0.000	0.079
Within Race/Ethnicity	34.0	31.1	34.8	49.2	49.6			
Removals								
By Race/Ethnicity	71.8	10.3	9.6	4.1	4.2	10,382	0.000	0.077
Within Race/Ethnicity	20.7	18.5	26.8	30.8	33.3			

Table 5: <u>Wisconsin, 2010: Child Protective Services Univariate Data</u>

	%	N
<u>Outcomes</u>		
Victims of Maltreatment	13.3	33,156
Services Provided	64.4	4,414
Juvenile Court Petitions	13.1	4,414
Removals	37.8	4,414
<u>Race/Ethnicity</u>		
White	54.0	33,156
Black	28.5	33,156
Latino	9.9	33,156
Other	4.4	33,156
Multiracial	3.2	33,156

Table 6: Wisconsin, 2010: Results of Contingency Table Analysis of Race/Ethnicity and CPS Outcomes

	% White	% Black	% Latino	% Other	% Multiracial	N	Chi Square	Cramer's V
Victims of Maltreatment								
By Race/Ethnicity	57.9	23.5	9.5	5.6	3.5	33,156	0.000	0.049
Within Race/Ethnicity	14.3	11.0	12.8	16.8	14.9			
Cases Receiving Services								
By Race/Ethnicity	56.9	24.3	9.1	5.8	4.0	4,414	0.028	0.05
Within Race/Ethnicity	63.3	66.5	61.6	66.5	73.5			
Cases Receiving Juvenile Court Petition								
By Race/Ethnicity	69.5	11.4	7.8	5.9	5.4	4,414	0.000	0.122
Within Race/Ethnicity	15.7	6.4	10.7	13.7	20.0			
Removals								
By Race/Ethnicity	52.7	29.0	9.8	4.3	4.2	4,414	0.000	0.117
Within Race/Ethnicity	34.5	46.7	39.1	28.6	45.2			

Table 7: <u>Michigan, 2010: Child Protective Services Univariate Data</u>

	%	N
<u>Outcomes</u>		
Victims of Maltreatment	18.2	192,433
Services Provided	37.9	35,019
Juvenile Court Petitions	24.5	35,019
Removals	16.8	35,019
<u>**Race/Ethnicity**</u>		
White	62.1	192,433
Black	27.3	192,433
Latino	4.2	192,433
Other	0.8	192,433
Multiracial	5.6	192,433

Table 8: Michigan, 2010: Results of Contingency Table Analysis of Race/Ethnicity and CPS Outcomes

	% White	% Black	% Latino	% Other	% Multiracial	N	Chi Square	Cramer's V
Victims of Maltreatment								
By Race/Ethnicity	61.5	26.5	4.5	0.7	6.8	192,433	0.000	0.026
Within Race/Ethnicity	18.0	17.7	19.6	16.0	22.0			
Cases Receiving Services								
By Race/Ethnicity	65.9	21.7	4.8	0.8	6.8	35,019	0.000	0.087
Within Race/Ethnicity	40.6	31.0	40.4	44.3	38.4			
Cases Receiving Juvenile Court Petition								
By Race/Ethnicity	55.7	30.1	4.8	0.7	8.9	35,019	0.000	0.074
Within Race/Ethnicity	22.2	27.8	26.1	22.5	32.1			
Removals								
By Race/Ethnicity	52.7	32.8	3.9	0.8	9.9	35,019	0.000	0.093
Within Race/Ethnicity	14.4	20.8	14.6	18.6	24.5			

Table 9: <u>Minnesota, 2010: Child Protective Services Univariate Data</u>

	%	N
<u>Outcomes</u>		
Victim of Maltreatment	18.5	24,960
Services Provided	66.9	4,620
Juvenile Court Petitions	30.8	4,620
Removals	36.4	4,620
<u>Race/Ethnicity</u>		
White	52.1	24,960
Black	17.7	24,960
Latino	11.1	24,960
Other	9.2	24,960
Multiracial	9.9	24,960

Table 10: Minnesota, 2010: Results of Contingency Table Analysis of Race/Ethnicity and CPS Outcomes

	% White	% Black	% Latino	% Other	% Multiracial	N	Chi Square	Cramer's V
Victims of Maltreatment								
By Race/Ethnicity	45.9	20.5	11.6	9.4	12.5	24,960	0.000	0.065
Within Race/Ethnicity	16.3	21.4	19.3	19.0	23.4			
Cases Receiving Services								
By Race/Ethnicity	43.3	21.5	11.6	10.3	13.3	4,620	0.000	0.082
Within Race/Ethnicity	63.0	70.0	66.9	73.2	71.3			
Cases Receiving Juvenile Court Petition								
By Race/Ethnicity	46.9	18.5	9.8	11.8	12.9	4,620	0.000	0.07
Within Race/Ethnicity	31.5	27.8	26.1	38.5	31.8			
Removals								
By Race/Ethnicity	42.9	20.9	9.9	12.0	14.3	4,620	0.000	0.09
Within Race/Ethnicity	34.0	37.1	30.9	46.3	41.5			

Table 11: Washington, 2010: Child Protective Services Univariate Data

	%	N
Outcomes		
Victim of Maltreatment	14.3	46,524
Services Provided	55.8	6,657
Juvenile Court Petition	34.0	6,657
Removals	36.3	6,657
Race/Ethnicity		
White	60.0	46,524
Black	8.2	46,524
Latino	15.6	46,524
Other	8.2	46,524
Multiracial	8.0	46,524

Table 12: Washington, 2010: Results of Contingency Table Analysis of Race/Ethnicity and CPS Outcomes

	% White	% Black	% Latino	% Other	% Multiracial	N	Chi Square	Cramer's V
Victims of Maltreatment								
By Race/Ethnicity	58.0	7.4	16.2	9.2	9.2	46,524	0.000	0.029
Within Race/Ethnicity	13.8	12.8	14.9	16.0	16.6			
Cases Receiving Services								
By Race/Ethnicity	57.8	6.9	16.4	8.7	10.2	6,657	0.000	0.045
Within Race/Ethnicity	55.6	52.2	56.4	52.5	61.6			
Cases Receiving Juvenile Court Petition								
By Race/Ethnicity	56.5	7.1	16.1	8.9	11.4	6,657	0.000	0.054
Within Race/Ethnicity	33.2	32.5	33.7	33.7	42.0			
Removals								
By Race/Ethnicity	57.3	7.5	15.9	8.4	10.9	6,657	0.000	0.048
Within Race/Ethnicity	35.9	37.0	35.6	33.1	43.0			