CHILD WELFARE DECISION-MAKING: DOES RACE MATTER?

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ABSTRACT

Kanisha Coleman Brevard: Decision-making in Child Welfare: Does Race Matter?
(Under the direction of Mark F. Testa)

Black children consistently make up a disproportionate share of children in child welfare agencies across the nation. Using administrative from the state of Illinois, this study explores predictors of disparity in case substantiation decisions among black and white workers investigating black and white children for allegations of child abuse and neglect between the years of 1990 and 2015. The study summarized child welfare policies and programs in Illinois that have been created to directly or indirectly reduce racial disproportionality. The study examined whether a worker’s decision to substantiate an allegation of maltreatment was determined by the race of the child, the race of the child welfare worker, and the type of allegation being investigated. Differences in workers’ substantiation rates for black and white children over time were also investigated. Main findings showed that all children were more likely to be substantiated if they had an allegation that was substance-related, and this finding held for both black and white workers. However, white workers were more likely than black workers to substantiate a substance-related allegation if the child was black. Also, when racial composition of a worker’s caseload was controlled for, findings showed that higher proportions of black children in a caseload were associated with lower levels of racial disparity and smaller proportions were associated with higher levels of racial disparity among caseworkers. Overall, findings suggest that racial differences in child welfare decision-making exist and should
continue to be explored to understand how race, type of allegation, and caseload racial composition play a role in workers’ decision to substantiate different allegations of child abuse.
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<tr>
<td>AECF</td>
<td>Annie E. Casey Foundation</td>
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<td>AFDC</td>
<td>Aid to Families with Dependent Children</td>
</tr>
<tr>
<td>CANTS</td>
<td>Child Abuse &amp; Neglect Tracking System</td>
</tr>
<tr>
<td>DCFS</td>
<td>Illinois Department of Children and Family Services</td>
</tr>
<tr>
<td>HLM</td>
<td>Hierarchical Linear Modeling</td>
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<tr>
<td>IAAFC</td>
<td>Illinois African American Family Commission</td>
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<tr>
<td>LN</td>
<td>Natural-logarithm</td>
</tr>
<tr>
<td>NSCAW</td>
<td>National Survey of Child and Adolescent Well-being</td>
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<tr>
<td>PEI</td>
<td>Permanency Enhancement Initiative</td>
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<td>PEP</td>
<td>Permanency Enhancement Project</td>
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<td>PII</td>
<td>Permanency Innovations Initiative</td>
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<td>RD</td>
<td>Racial disproportionality</td>
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<td>SG</td>
<td>Subsidized Guardianship</td>
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<td>TARGET</td>
<td>Trauma Affect Regulation: Guide for Education and Therapy</td>
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<td>USHHS</td>
<td>United States Department of Health and Human Services</td>
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CHAPTER 1: THE INFLUENCE OF STATE AND FEDERAL POLICIES ON RACIAL DISPROPORTIONALITY IN THE ILLINOIS CHILD WELFARE SYSTEM

Introduction

Historically, black children in the United States are more likely to experience disproportionate outcomes compared with children from other racial and ethnic groups. In the juvenile justice system, black youth are more likely to be profiled, arrested, jailed, and sent to group homes for juvenile (e.g., Erickson, 2014; Shook & Goodkind, 2009). In the education system, they are more likely to drop out of school, be expelled, or suspended compared to children from other racial and ethnic groups (e.g., Gregory et al., 2010; Losen, 2011). In the child welfare system, the focus of the current study, they are more likely to be reported, investigated, have their allegations substantiated, enter foster care, and remain in foster care longer than white children (Rolock, 2008; U.S. Department of Health and Human Services [UHHS], Administration on Children, Youth and Families [ACF], 2012).

In almost every state, black children are overrepresented in the child welfare system (CWS) compared to their representation in the state’s general population. This overrepresentation is referred to as racial disproportionality. In some states, Latino and Native American or Indigenous children are also overrepresented in the child welfare system. Despite recent reductions in the number of black children in foster care, in 2013 black youth were still two times more likely to be in foster care (26%) and in congregate care (30%) than they were in the overall population (14%; UHHS, 2013; UHHS, 2015). Congregate care is considered the
least preferred placement and youth are often placed in congregate care because of severe mental and behavioral problems (Chow, Mettrick, Stephan, & Waldner, 2014). However, a national report on congregate care in the U.S. found that nearly 32% of black youth, aged 13 and older, who spent time in substitute care in 2008 showed no signs of a clinical disorder or disability (UHHS, 2015). This finding suggests black children either are wrongly assessed as having behavior issues or non-family-like placements are inappropriately used for youth who are considered hard to place in a potentially adoptive home. Placements that do not meet the needs of children may have the potential to unnecessarily disrupt connections between youth and their families, delay permanency, and lead to negative outcomes in adulthood.

Some scholars attribute disproportionate outcomes to blacks’ disproportionate exposure to risk factors and the lack of prevention efforts in their communities (Bartholet, 2009; Cross, 2008). Black children are more likely to live in areas of concentrated poverty compared with white children (e.g., Drake & Rank, 2009) and are more likely to experience child abuse and neglect (Sedlak & Broadhurst, 1996). The increased likelihood of maltreatment can also be influenced by family structure. Research shows children living in single-parent households are more likely to be maltreated, and black women are the heads of most black households (Brooks, 2016; Hill, 2006). Black women are also more likely to experience chronic stress than women from other racial and ethnic groups (Geronimus, 1991). Thus, the challenges that come with being the sole provider of a family, as well as living in an area of high poverty, can compromise parenting and increase the likelihood of child welfare involvement.

Although family and environmental risk factors may contribute to different levels of child welfare involvement between racial and ethnic groups, there is no consensus among researchers that these factors fully explain racial disproportionality. Racial bias in child welfare decision-
making is another possible explanation for overrepresentation. This perspective suggests that the way blacks and their parenting behaviors are socially constructed in society can influence reporting patterns and decisions made at different stages of the child welfare process.

Using race and other factors unrelated to the case to produce a decision can be done at an explicit (conscious) or implicit level (unconscious). It can compromise the reliability of decision-making tools designed to reduce subjectivity and the likelihood of errors (Bodenhausen, 1988; Dettlaff et al., 2011; Gawronksi & Payne, 2011). Recent research has explored how racial bias may explain disproportionate outcomes found at each stage of the child welfare decision-making process. At the frontend, biased reporting from professionals and community members may explain the high numbers of black families reported to the system (UHHS, 2012). Moreover, once a family becomes involved in the system, some studies suggest that the complex and subjective nature of child welfare decision-making can lead to racial disparities in service provision (Garcia, Palinkas, Snowden, & Landsverk, 2013), entry into foster care (Kim, Chenot, & Ji, 2011), and length of stay in foster care (Wulczyn, 2003). Thus, researchers suggest any approach used to reduce racial disproportionality and disparity should consider how racial bias and environmental risk factors contribute to how blacks are evaluated for child abuse and neglect.

Examine...
states with small black populations place more children in foster care and have higher levels of
racial disproportionality (Foster, 2012). Although states with large black populations tend to
have lower rates of disproportion compared to states with small black populations, states with
very large, densely populated cities, such as Illinois and New York, still have high levels of
overrepresentation (Foster, 2012). Their high levels of overrepresentation are likely attributed to
their higher poverty and maltreatment disparity rates compared to less dense geographic areas.
Research indicates that densely populated counties have higher poverty disparity rates compared
to rural counties, and poverty disparity rates are positively associated with disparity in rates of
maltreatment (Foster, 2012; Lanier et al., 2014; Maguire-Jack et al., 2015). Therefore, in addition
to racial composition, variations in rates of poverty and population density can influence the
racial makeup of children being investigated for maltreatment.

Racial disproportionality may also be influenced by the racial make-up of its child
welfare workers. Workers’ inability to relate to their clients have been found to negatively
influence case outcomes for families of color (Miller et al., 2012). One study in particular,
comprised of 286 caregivers from the National Survey of Child and Adolescent Well-being
(second cohort; NSCAW), found that non-white caseworkers compared with white caseworkers
were nearly seven times more likely to use active referral strategies for caregivers of the same
race rather than simply providing information about housing assistance (McBeath, Chuang,
Bunger, & Blakeslee, 2014). Also, research shows that southern states, where over half of black
people in the U.S. reside, have lower levels of racial disproportionality compared to northern
states (Foster, 2012; U.S. Census Bureau, 2001). Thus, some of the variation in racial
disproportionality across and within states may be influenced by the racial composition of states
and their child welfare agencies.
Furthermore, the perceived scope of child welfare policies (Peterson, Joseph, & Feit, 2014) and resource availability can also cause varying levels of racial disproportionality across states. For example, lower protective custody rates in southern states may reflect stricter social policies (Foster, 2012). That is, those living in the south may believe that there should be limited governmental interference in the lives of families. Thus, southern states may take fewer children into foster care and rely more on informal kinship caregivers to serve as substitute caregivers with limited or no child welfare intervention.

The present study uses the state of Illinois to explore how state-level child welfare policies and programs are used to address racial disproportionality. Despite making up 19% of the child population in Illinois in 2007, black children made up 34% of reports received by DCFS (Rolock, 2008). Specifically, black children living in northern Illinois were almost 5 times more likely to be reported compared with other racial groups in the state (Rolock, 2008). Although Illinois has low child removal rates, children who are removed from their homes stay in foster care for a long time (USHHS, 2010). For example, at the start of the 2013 fiscal year, the median length of stay for children in foster care was 26 months. Illinois was one of four states who had less than 40% of children who became legally free for adoption get adopted in less than 12 months (UHHS, 2016). Also, white children are more likely to reunify with their parents (52%) than black children (38%). They are also less likely to exit foster care (14%) in other ways (e.g., emancipation, runaway) than black children (28%; USHHS, 2010).

Furthermore, Illinois has been the site of many federal child welfare demonstrations. Thus, evidence from state-level interventions is readily available to show the impact of child welfare programs and policies on black children and their families. This chapter reviewed published and gray literature on racial disproportionality and how it has been addressed in the
state of Illinois. Specifically, the review included a search of bibliographic electronic databases (e.g., PsychINFO, PubMed, Social Services Abstracts, Sociological Abstracts, Dissertations and Theses), state and federal reports (e.g., U.S. Health and Human Services, Illinois Department of Children and Family Services (IDFCS), and philanthropic organizations (e.g., Casey Family Programs, Annie E. Casey Foundation). Reviewing the literature on child welfare policies and programs that hold potential for reducing racial disproportionality is important for the development of interventions and replication of successful programs.

**Literature Review**

**Poverty and Racial Disproportionality in Illinois**

Variations in child well-being based on regional differences in policies and resources show that characteristics of communities can play a role in determining child welfare involvement (Smith, Kay, & Womack, 2017). Many children and youth involved in the child welfare system live in communities with high poverty rates, lack of service availability, high population density, and residential instability (Coulton et al., 2007; Font & Maguire-Jack, 2015; Freisthler, Midanik, & Gruenewald, 2004; Maguire-Jack et al., 2015). Nationally, the poverty rate among all blacks was 31.9 percent in 1990 but dropped to 22.5 percent in 2000 (McDonald, 2004). Blacks are almost twice as likely as other children to live in high-poverty neighborhoods (32% v. 14%) and to live in single-parent homes (67% v. 35%; AECF, 2015). Nearly half of black children (48%) had no parent with full-time, year-round employment in 2013 compared with 24% of white children (AECF, 2015). Specifically in Illinois, black infants and toddlers are more than three times as likely as whites to live in concentrated poverty, are twice as likely to have low birthweight, and nearly three times as likely to be victims of homicide (Murphey, Cooper, & Forry, 2014). Poverty is associated with a range of negative child and youth
outcomes, such as problem behaviors, poor psychological functioning, and low test scores in school (e.g., Burton & Jarrett, 2000).

Although black children are more likely to be exposed to poverty, research shows that in communities where child poverty is higher than average in Illinois, child maltreatment rates for white children are also higher, but lower in these communities for black children. This finding suggests different relationships exist between poverty and maltreatment for black and white children in Illinois (Rolock, Dettlaff, Wilder, & Jantz, 2011). It is unclear whether these differences are due to differential effects of poverty for whites and blacks, biased reporting behaviors in communities of high poverty, or some other phenomenon. Therefore, more research is needed to understand how poverty contributes to disparities in child maltreatment.

Moreover, availability of services within poor communities can leave families vulnerable to conditions that may compromise parenting and place them at risk for child maltreatment. Because of gentrification and demographic changes over time in Chicago communities, many service providers have had to assess the need of their services in the changing community, adapt their services to the new population, relocate, or find ways to contact and serve their former clients who have moved away. Thus, some communities in Chicago do not have enough services to meet the needs of a growing population (Goerge et al., 2007).

Furthermore, although parental substance abuse is one of many risk factors for child abuse and neglect, barriers such as lack of transportation (Friedmann, D’Aunno, Jin, & Alexander, 2000), child care services (Marsh & Miller, 1985), and drug rehabilitation centers often prevent parents from obtaining help. Research shows that increases in services, such as counseling, transportation, and child care can lead to a decrease in substance use, which is a predictor of child maltreatment (Marsh, D’Aunno, & Smith, 2000; Smith & Marsh, 2002).
Therefore, service availability in communities can reduce the likelihood of child maltreatment from substance abuse. Research shows that the likelihood of substantiation increases when services and supports are not available or can only be accessed through the child welfare system (Font & Maguire-Jack, 2015). Thus, regional differences in racial disproportionality may also be explained by the number and quality of resources available to prevent child maltreatment.

On the other hand, some research shows that regardless of their community’s socio- and economic characteristics, black children are more likely to enter foster care than white children. For example, Rolock and colleagues (2012) found that black children from all types of communities had greater odds of entering foster care than white children in counties characterized as been highly organized due to their low arrest rates, low poverty levels, and fewer female headed households.

**Racial Disproportionality and Permanency in Illinois**

From the late 1990s and early 2000s, Illinois enacted policy and practice changes aimed at increasing the number of permanent placements for children in foster care. One year after the passage of the federal Adoption and Safe Families Act of 1997, the state doubled their number of permanent homes. The state went from having over 50,000 children in state custody in 1997 to slightly over 16,000 by the year 2007. The drop in the number of children in foster care was due to changes that resulted in fewer children entering foster care and more children exiting foster care (Rolock et al., 2011).

Between 1997 and 1999, more children attained permanence through adoption and subsidized guardianship, an alternative permanency option implemented in 1997. Between 1998 and 2004, the average permanency rate for the state was 55% for children who achieved permanency within in 36 months (Dettlaff et al., 2009). However, the rate of permanency varied
across regions in the state. The Central region had the highest (69%) permanency rate and Cook county the lowest (41%). Despite having one of the highest permanency rates in the state, the southern region had nearly twice the number of black children entering foster care compared to their representation in the region’s general population between 2001 and 2007 (Dettlaff et al., 2009; Rolock, Jantz, Gleeson, & Leathers, 2012). Although the odds of attaining permanency for Cook County increased in the 1990s, from 2004 to 2008 Cook County’s subregions had the lowest reunification percentages and the longest stays in foster care compared to other regions within the state (Rolock & Testa, 2008; Rolock et al., 2012; Rolock et al., 2011).

During the same time period, from 2002 to 2007, racial disparity in foster care entry increased. For example, black children were over 2 times more likely to enter care in Cook county, nearly 2 times more likely in the Northern and Central regions, and slightly over 1 times more likely in the Southern region (Rolock, 2008). These findings confirm that varying levels of racial disparity across regions can exist within a state and that racial disproportionality can be influenced by the characteristics within a particular region in a state.

Although Illinois reduced the number of children in state custody, children who do enter foster care are disproportionately black and stay in care for extended periods of time. In fact, black children are less likely than white children to achieve permanence (Rolock, 2008; Rolock et al., 2012). For example, black children were 60% of those remaining in foster care in Illinois after three years (Rolock, 2008). Research shows that youth who do not find a permanent home before age 18 are less likely to have stable employment and are more likely to earn less than youth in the general population (Courtney et al., 2005; Courtney et al., 2001; Dworsky, 2005). In a three-state study that included former foster youth from Illinois, nearly half of the participants
reported experiencing more unemployment and lower wages than young adults in the general population (Courtney, Dworsky, et al., 2011; Osgood et al., 2010).

Moreover, the youngest children in Illinois, and nationally, are most likely to experience abuse and neglect and to be placed into foster care. In 2011, about 7,600 infants and toddlers in Illinois had substantiated reports of maltreatment (Murphey et al., 2014). Because infancy is a significant time period when children form secure relationships with their parents, long stays in foster care place children at risk for negative outcomes later in life. Thus, the research suggests that, because they comprise a disproportionate share of those entering child welfare and are less likely to attain permanence, black children and youth are more likely to be at risk for negative long-term outcomes.

**Child Welfare Policies and Programs Targeting Racial Disproportionality**

Several efforts have been developed to specifically address the needs of black families in Illinois. Table 1.1 includes a summary of types of efforts that have been conducted in Illinois to reduce racial disproportionality and disparities in child welfare. In 1994, the Illinois African American Family Commission (IAAFC) was created by Public Act 093-0867 to help child welfare agencies promote the well-being of black families within the state. The commission takes part in developing, implementing, and evaluating child welfare programs and policies. The goals of the commission were expanded in 2004 to include collaborations with external agencies to assist the state in reducing social, educational, health and economic challenges faced by black families. In 2014, in partnership with the DCFS, the Commission formed Transformation Teams. Transformation Teams included community members, parents, former foster youth, child welfare staff, and university partners. These teams were tasked with the goal of reducing the proportion of black children in foster care by examining patterns of institutional and structural racism.
(IAAFC, 2014). In addition to Transformation Teams, DCFS has recently partnered with other institutions and organizations to develop Local Action Teams who are tasked with reviewing data on outcomes, unmet needs, and whether practice strategies are reducing racial disparities (Miller & Esenstad, 2015). The Local Action Teams include representatives from the community, law enforcement, school, mental health providers, juvenile justice, and other organizations.

Table 1.1 Summary of efforts to reduce racial disproportionality and disparities in child welfare in Illinois

<table>
<thead>
<tr>
<th>Types of efforts</th>
<th>Systems involved in efforts</th>
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<tr>
<td>• Awareness about racial disproportionality and disparate outcomes</td>
<td>• Child welfare</td>
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<tr>
<td>• Disaggregating data by race/ethnicity</td>
<td>• Education</td>
</tr>
<tr>
<td>• Community engagement</td>
<td>• Courts/law enforcement/legal/juvenile justice</td>
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<tr>
<td>• Multi-system collaboration (i.e., child welfare, education, court, mental health, juvenile justice)</td>
<td>• Colleges and universities</td>
</tr>
<tr>
<td>• Identification and implementation of system strategies</td>
<td>• Health</td>
</tr>
<tr>
<td>• Expansion and improvement of services</td>
<td>• Faith</td>
</tr>
<tr>
<td>• Research and evaluation</td>
<td>• Housing</td>
</tr>
<tr>
<td>• Internal funding</td>
<td>• Mental Health</td>
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Note: Adapted from Miller & Esenstad, 2015

Another statewide effort to reduce racial disproportionality in Illinois was the creation of the Illinois Permanency Enhancement Initiative (PEI) in 2007. Partnering with state universities, the PEI conducted 40 focus groups comprised of 299 stakeholders across the state to identify facilitators and barriers to permanency. Stakeholders included child welfare workers from public and private agencies, and representatives from the legal system, foster parents, foster youth, and parents. Some of the themes summarized from the focus groups included poverty, substance abuse, poor communication, negative relationships between parents and service professionals, lack of diverse workers and service providers, and lack of collaboration between systems and
service providers (Dettlaff et al., 2009). Themes gathered from the focus groups fall under many of the components of the Decision-making Ecology (DME) framework shown in Figure 1.1. The DME framework provides a systemic context for child welfare decision-making and includes a range of interacting external, family, organizational, and decision-maker factors that can influence decisions and child and family outcomes (Baumann, Dalgleish, Fluke, & Kern, 2011).

![Figure 1.1 Decision Making Ecology (Baumann et al., 2011)](image)

Moreover, the Permanency Innovations Initiative (PII), is a multisite demonstration project funded by the Children’s Bureau to improve permanency outcomes for youth placed in foster care for more than two years. As one of the selected sites by the Children’s Bureau, the DCFS and its partners, implemented the *Trauma Affect Regulation: Guide for Education and Therapy* (TARGET), an evidenced-based intervention. The primary goal of TARGET was to help youth (ages 11-16) and their caregivers manage their reactions to trauma in order to reduce barriers to achieving permanence. Although reducing disproportionality was not an explicit focus, the intervention could produce positive outcomes for black youth, who consistently make up a disproportionate share of children in long-term foster care in Illinois (UHHS, 2016).

In the early 2000s, Illinois developed the Permanency Enhancement Project (PEP) model, which is a statewide strategy to achieve racial equity. The focus of the project was to use data to
improve policy, practice, and cross-system partnerships. The project involved the DCFS’s newly established Office of Racial Equity Practice, which focused on addressing racial disproportionality and disparities in the child welfare system. This project also developed Local Action Teams and three Regional Transformation Teams to identify causes and effects of disparate outcomes to inform changes in policies and practices. Regional teams included legal stakeholders (i.e., judges, attorneys), DCFS administrators, child welfare workers, and representatives from community organizations. To guide the team’s efforts, DCFS is in the process of developing a racial equity impact assessment tool to aid in the evaluation of existing and proposed policies and practices targeting racial disparities. The tool is expected to guide the development of a race-informed practice model that can be adopted by state agencies and other institutions (Miller & Esenstad, 2015). The tool will be able to identify unintended consequences of policies and practices affecting families of color. The practice model will take into account the dynamics of implicit bias and institutional racism as child welfare workers and other stakeholders make decisions about families. Moreover, because judges play a key role in child welfare decision making, PEP conducted a one-day racial equity training for judges as part of the state’s mandated bi-annual educational conference for judges. DCFS’s long-term goal is to train over 6,000 state and private child welfare personnel and stakeholders using a race-informed practice model, which aims to reduce biased decision-making and racial disparities (Miller & Esenstad, 2015).

Additionally, findings from local interventions show that increased efforts can successfully reduce racial disproportionality. For example, when Dekalb county found that black children accounted for 27 percent of children in custody despite representing six percent of all children in the county, a local action team was arranged to connect parents to community
resources. After implementing this approach, county data from 2013 showed that the percentage of black children in custody dropped from 27 to 18 percent. This example shows racial disproportionality can be reduced when workers make it a priority to actively engage parents and link them with service providers in the community who can meet their needs (Miller & Esenstad, 2015).

In an efficacy study of a Chicago parent program (CPP) that served over 200 low-income black and Latino parents of toddlers at risk for child maltreatment, intervention parents used less physical discipline and their children showed fewer behavior problems than controls after a one-year follow-up (Gross et al., 2009). Understanding that this population experience many stressful situations, the intervention developers designed the program in partnership with black and Latino parents from different Chicago communities. Materials used in the intervention were matched with the families’ values and cultures. The study shows that interventions consistent with the culture of parents can produce long-term positive outcomes. The intervention also models how to build trust within black and Latino parents by involving them in intervention development.

Policies that promote family preservation are also promising approaches to reduce the overrepresentation of black children in the Illinois child welfare system. Beginning in 1994, the Social Security Act granted waivers to five states willing and able to implement subsidized guardianships (SG) as part of the federal government’s mission to develop new and effective child welfare programs (Testa, 2002). In 1997, the number of states receiving waivers increased under the Adoption and Safe Families Act. The waiver demonstrations aimed to determine the efficacy of SG as a cost-effective permanency alternative when adoption or reunification are ruled out as acceptable alternatives to foster care. SG is limited to children who have been in foster care for at least two years and have lived with the prospective caregiver for at least one
year prior to seeking subsidized guardianship (Testa, 2002). The caregivers receive subsidized payments from federal funds given to the state (UHHS, 2011).

Each of the states with subsidized guardianship waiver demonstrations conducted evaluations to test the use of SG in improving placement outcomes. Findings from a randomized control study conducted in Illinois from January 1997 to June 1999 showed that children in homes receiving SG achieved permanence at a higher rate than children in homes not receiving SG (Testa, 2002). These initial findings prompted the renewal of the waiver for five more years and the recognition of SG as a suitable permanency option. Comparing rates of exits to guardianship between 2004 and 2008, Rolock and colleagues (2012) found that Cook County, whose foster care population was comprised of majority black children, had the highest rate of exits to guardianship (Rolock, 2012). Also, odds of adoption or guardianship increased for black children from 1985 to 2008 relative to white children (Rolock et al., 2011). For example, after 2005, the odds of permanency increased for black children placed with kin (Rolock & Testa, 2008). In fact, if a child, regardless of race, had spent some time in a kinship placement, then the child was more likely to attain permanence compared with children never placed in a kinship placement (Rolock et al., 2011). Because of its focus on preserving kinship ties, a common value and practice in many black families, subsidized guardianship reduced the number of black children waiting to find permanent homes (Rolock & Testa, 2008; Rolock et al., 2011).

Co-occurring Problems

Many families involved in the CWS have more than one life challenge, such as poverty, domestic violence, personal history of child maltreatment, substance abuse, and other life challenges. Research shows that children from families with multiple risk factors or who receive financial assistance, such as Aid to Families with Dependent Children (AFDC), are more likely
to re-enter foster care (Lee, S., Jonson-Reid, M., & Drake, B., 2012). Also, children of parents who have abused substances are likely to be placed into foster care (Besinger et al., 1999) and have difficulties achieving permanence (Eiden et al., 2007). After the subsidized guardianship waiver, another Illinois waiver demonstration was implemented in 2000 to focus on reducing parental substance abuse and improving permanency outcomes in Illinois. Findings from the waiver evaluation revealed that simply having access to substance abuse services was not sufficient for actually completing treatment or for achieving reunification. Parents in the demonstration project, majority of whom were black, had to make progress in treatment in order to increase the likelihood of the child returning home. Families in the demonstration group were more likely to attain reunification (15% vs. 11%) and less likely to have a subsequent report of maltreatment than families in the control group (Ryan, 2006). One plausible reason for the low reunification rates in both groups was the number of co-occurring problems found in the sample (Ryan, 2006). Over half of the sample had at least three risk factors that were assessed at the start of treatment. Thus, the number (and severity) of problems a family can impact a parent’s ability to complete treatment plans and the time a child spends in foster care. Also, black families, because of their disproportionate exposure to risks, may be more likely than white families to have co-occurring challenges, and, therefore, may have a difficult time achieving reunification.

Stringent timeframes used by child welfare agencies could also be a contributing factor for low reunification rates among families with multiple risk factors. Time frames established by the Adoption and Safe Families Act, which mandates a twelve-month period to achieve reunification, stress the need for effective programs and consistent engagement of parents. In addition to shorter time frames, child welfare agencies are also faced with issues, such as turnover, high caseloads, and limited resources and services (Dettlaff et al., 2009). Thus,
bureaucratic issues and the number and severity of problems many families of color are exposed to may can contribute to long stays in foster care and, consequently, increase the potential for negative outcomes later in life. Although recent policies (e.g., Fostering Connections Act of 2008) have prioritized efforts to address issues contributing to racial disproportionality, black children are still overrepresented in the child welfare system. Because many of the life challenges that bring black families to the attention of child welfare stem from structural problems, multisystemic approaches such as creating local action teams comprised of partners from other systems (e.g., mental health, legal, faith) are needed to address the multiple problems that increase the risk of child abuse and neglect.

**Discussion**

Illinois is one of several states using large, multi-system efforts to reduce racial disproportionality and disparities in child welfare. Because recent research has pointed out the importance of geographic context in the varying rates of racial disproportionality, interventions should be tailored to the contexts of a state and its counties. Child welfare agencies should identify their organization’s and surrounding community’s ability to meet the tangible, mental, and cultural needs of their clients. Diverse staff, racial equity training, adequate resources, availability and accessibility of poverty and drug prevention programs, and cross-system efforts have been identified in the literature as areas of improvement that could potentially prevent black children from entering or staying in the child welfare system for long periods of time.

Because of all the possible interrelated factors, racial disproportionality in child welfare is a complex problem. More research is needed to identify the processes linking explanatory factors (e.g., racial bias) to disproportionate and disparate child welfare outcomes. Therefore, in addition to sociodemographic information, such as parent’s age, race, family structure, and
income, experimental studies should examine black parents’ experiences with child welfare. Parents should be asked whether or not they felt judged or treated differently because of their race and whether it negatively impacted their relationship with their case worker.

Furthermore, future analyses should also include common actions and services recommended or mandated by courts (e.g., parenting programs, drug and alcohol rehabilitation), the ability of parents to complete them, and the effectiveness of the programs in achieving permanency goals and improving the well-being of the family. Evaluation of interventions should occur during and after implementation to monitor the fidelity and impact of activities and services on child welfare outcomes. Illinois is one out of few states that prioritizes research and evaluation as key strategies for reducing racial disproportionality. However, evaluations of well-designed interventions that go beyond the use of administrative data to include other relevant data (i.e., county characteristics, worker-parent relationship quality, etc.) that could influence racial disproportionality would provide a better understanding of where racial disproportionality and disparities exist, to what degree, and why.

Furthermore, DCFS has required racial equity training for child welfare workers and key personnel from other systems and institutions as part of their policy initiatives. The purpose of this training is to help those who work with children and families become aware of internalized messages about race that may influence their perceptions and behaviors toward families of color. Becoming familiar with the history of oppression and understanding child maltreatment as being one of the possible consequences of chronic, cumulative stressors faced by many blacks could change the views of workers who place most of the blame on the individual. Future studies should evaluate the impact of racial equity training on workers’ decisions and their relationships with families and compare results with agencies who have not implemented similar training.
Positive results for those with training would promote racial equity training as one of the key strategies that could be standardized to reduce racial disproportionality.

Successfully incorporating policies, programs, and specialized training, such as racial equity training, requires child welfare policy makers and administrators to believe that racial disproportionality is an issue that can be partly addressed by the child welfare system. There is still much debate among researchers and practitioners about how much environmental and organizational factors play a role. Some believe that environmental risk factors like poverty are to blame for racial disproportionality, and, therefore, a problem for other systems to address. They view the problem as a reflection of broader issues rather than any biased child welfare policies or practices. Others believe that poverty does not fully account for racial disproportionality and disparities, and child welfare should work internally, as well as with other systems, to address the problem. There is some research evidence to support both sides (e.g., Detlaff et al., 2011; Rivaux et al., 2008; Sedlak & Broadhurst, 1996). More research is needed to identify what causes racial disproportionality to vary within a state and the practices and policies involved in creating and maintaining the problem. Several studies and initiatives reviewed in the current paper suggest that place and race matter and examining the role of geographic context and racial bias can lead to a better understanding of racial disproportionality and the development of appropriate interventions.

**Limitations**

Although the review included studies and reports from bibliographic electronic databases and evaluation reports from federal and philanthropic organizations, there may be additional studies or reports not included in this review on approaches used in Illinois to address racial disproportionality. Therefore, this chapter must be viewed with the understanding that not all
possible approaches or interventions, some of which may be currently in development, are summarized and that evidence-based literature on racial disproportionality is still growing.

**Conclusion**

Research shows that geographic context and race determine where and to what extent racial disproportionality exists. Because racial disproportionality varies within and across states, interventions should be tailored to the context and needs of the geographic area, as well as the culture of the families. Child welfare leaders within the state have prioritized research and evaluation, community engagement, system and service improvement, and multi-system collaboration as key strategies needed to achieve racial equity. The state can serve as a model for other states that are seeking to identify sources of racial inequities and to improve their systems’ capacity to develop and support effective solutions. Improving how black children are assessed by decision makers (e.g., social workers, school, legal and medical personnel) is critically important because lengthy foster care stays and untreated mental health problems among children with maltreatment histories can lead to severe mental health problems and poor outcomes in adulthood.
REFERENCES


CHAPTER 2: RACE, ALLEGATION TYPE, AND CHILD MALTREATMENT INVESTIGATIONS

Introduction

Children from racial and ethnic minority groups are disproportionately involved in the child welfare system given their proportion in the U.S. child population. For example, despite representing approximately 15 percent of the U.S. child population, black children account for 18% of children with substantiated cases of maltreatment (U.S. Bureau of Census, 2014; U.S. Department of Health and Human Services, 2014). In addition to having higher rates of substantiation, black children are also more likely to be removed from their family homes and account for 24% of children placed in foster care. In contrast, white children, 65% of the U.S. child population, represent only 35% of children with substantiated cases and 43% of children in foster care (UHHS, 2016). The greater proportion of black children who are involved in the child welfare system (CWS) compared to their representation in the U.S population is known as racial disproportionality (Foster, Hillemeier & Bai, 2011).

Racial disproportionality is also prevalent at the state and county levels. From 2005 to 2008, California’s racial disparity levels increased, and black children were 3 times more likely to have substantiated reports and 4 times more likely to enter foster care compared to white children (Kim, Chenot, & Ji, 2011). In New York, black children were up to 7 times more likely than white children to be reported to child welfare in 39 counties (Krase, 2015). In Illinois, the focus of the current study, black children represented nearly 20% of the state’s population in 2007 (Rolock, 2008). In 1996, 79% of children in foster care were black (Rolock, 2008). By
2005 and after reforms were put into place to reduce the percentage of all children in foster care, the percentage of black children in foster care reduced to 63% (Rolock, 2008). Despite reductions of black children in Illinois’s foster care population over time, black children continue to be overrepresented in the state’s child welfare system (Rolock, 2008).

Although there are environmental explanations for racial disproportionality (e.g., poverty), the current chapter mainly focuses on social explanations associated with higher rates of substantiations found among black children. This chapter examines whether the decision to substantiate an allegation varies by race of the child and of the worker when allegations are difficult to confirm by objective measures. That is, by grouping child abuse and neglect allegations based on their level of subjectivity, the current study investigated whether allegations that require more subjective judgment on the part of workers are associated with racial differences in substantiation.

**Literature Review**

**Racial Disproportionality and Future Risks**

Because child maltreatment has consequences that can affect mental, physical, and economic well-being in childhood and through adulthood (Whitted, Delavega, Lennon-Dearing, 2012), higher incidents of abuse and neglect in a particular population can result in greater risk of negative outcomes for black children and other children of color (Kraser, 2015). Black children are more likely to have longer stays in foster care (Barth, 1997; Goerge, 1990; Harris & Courtney, 2003; Wulczyn, 2003) and are less likely to receive recommended mental health services (Garland & Besinger, 1997; Garland et al., 2003; & Zima et al., 2000). Also, black youth with maltreatment histories show more internalizing symptoms and externalizing behaviors than white youth (Hatcher, Maschi, Morgen, & Toldson, 2009). The long-term effects
of maltreatment for black youth include greater odds of being arrested, a teenage parent, and unemployed (Lansford et al., 2009). Even within racial/ethnic groups, black children who are neglected by their parents are at higher risk for dysthymia, generalized anxiety disorders, homelessness, suicide attempts, and arrests compared with black children without a history of neglect (Widom, Czaja, Wilson, Allwood, & Chauhan, 2013). Despite a need for mental health services, studies show an increasing gap between need and access to services for racial minorities in child welfare (Garcia, Palinkas, Snowden, & Landsverk, 2013), thus contributing to the disproportionate share of black children in the CWS.

**Social explanation for racial disproportionality: Implicit bias**

One explanation for racial disproportionality is the impact of racial biases in reporting behaviors and the behaviors of child welfare decision-makers (e.g., caseworkers, supervisors, judges). At the frontend, biased reporting by mandated reporters and community reporters may contribute to high numbers of black families reported to the system. Once a family becomes involved in the system, some studies suggest that the complex and subjective nature of child welfare decision-making can lead to racial disparities in service provision, entry into foster care, and length of stay in foster care (Dettlaff et al., 2011; Drake & Zuravin, 1998; Kim, Chenot, & Ji, 2011; Roberts, 2014).

According to the social cognition framework, racial bias is the byproduct of implicit or unconscious cognitive mechanisms (Gawronski & Payne, 2011). That is, caseworkers challenged to make quick decisions with limited or ambiguous information may unknowingly use automatic racial associations to infer risk or need. Unintentionally, they may use biased, confirmatory strategies when interviewing families and completing risk assessments to confirm common stereotypical assumptions (Bodenhausen 1988; Bodenhausen & Wyer, 1985). In the case of child
welfare, workers may unconsciously assess a black family more negatively based on stereotypical expectations than they would a white family.

Racially biased decision-making is not unique to child welfare. For example, a psychological study on implicit bias found when participants were randomly exposed to images of black and white faces before viewing a picture of a race-neutral object (e.g., a Chinese pictograph), the object was evaluated more negatively by participants who had viewed a picture of a black person (Payne, Cheng, Govorun, & Stewart, 2005). Evidence of biased decision-making has also been found in other fields, such as juvenile justice, education, and medicine. For example, one recent study found that white medical students’ beliefs about biological differences between whites and blacks contributed to disparity in pain treatment. Using vignettes, the researchers found that more than half of the sample endorsed these beliefs. Those endorsing beliefs about biological differences were also more likely to report lower pain ratings for blacks and were less accurate in treatment recommendations for black patients compared to white patients with the same health conditions. Notably, participants who did not hold false beliefs about biological differences between whites and blacks did not show the same bias (Hoffman, Trawalter, Axt, Oliver, 2016).

Although the implicit social cognition framework provides an explanation of how cognitive biases can impact decisions, it does not adequately explain to what extent situational and contextual factors also affect workers’ assessments of families. The Decision-Making Ecology (DME) framework integrates these contexts into a comprehensive framework for understanding child welfare decision-making. It includes a range of contextual, family, organizational, and decision-maker factors that interact to influence decisions and child and family outcomes (Figure 1; Baumann, Dalgleish, Fluke, & Kern, 2011). The DME posits that the
psychological process of decision-making involves aspects of contextual and family risk factors, professional background, conscious and unconscious biases, and adherence to agency policies. Directly measuring implicit racial bias is challenging and complex (Gawronski & Payne, 2011). However, implicit bias research shows that, when controlling for relevant predictors of a particular outcome, remaining differences in outcomes among blacks and whites are believed to be due to racial biases. Thus, racial bias from well-intentioned workers may contribute to racially disparate outcomes and the persistence of racial disproportionality in child welfare.

Environmental Explanations of Racial Disproportionality

On the other hand, racial disproportionality could arise from disproportionate exposure to environmental risk factors. From a social ecological context, cumulative exposure to risk factors at the environmental level can create conditions for child maltreatment. The links between race, poverty, and child maltreatment are well-established (Berger, 2004; Courtney et al., 1996; Drake et al., 2003; Lanier et al., 2014). Black children are more likely to live in areas of same-race concentrated poverty compared with white children (62% vs. 13%, respectively; Drake & Rank, 2009). Further, states with high levels of disproportionality in poverty also have racial disproportionality in rates of child maltreatment (Drake, Lee, Jonson-Reid, 2009; Lanier et al., 2014). Data from the National Incidence Studies of Child Abuse and Neglect-3 (NIS-3) show that children living in households with annual incomes below $15,000 were over twenty times more likely to experience maltreatment than children from households with annual incomes above $30,000 (Sedlak & Broadhurst, 1996). In addition, research shows that characteristics of counties, such as their unemployment, poverty, and population density levels, are associated with disparity in child welfare involvement between white and racial minority groups (Kim et al., 2011). Also, studies have found that once risk factors for maltreatment and CPS involvement,
such as poverty, are controlled for, racial differences diminish (Drake, Lee, & Jonson-Reid, 2009). Thus, the research literature has mixed conclusions about the roles implicit bias and environmental risk factors play in understanding racial disproportionality in child welfare.

**Current Study**

*Case substantiation.* Although there are many complex decisions workers make that need to be evaluated for racial bias, the decision to substantiate a child abuse allegation is the focus of the current study. This decision occurs at the frontend of the child welfare continuum and often determines the type and extent of intervention necessary for a child’s safety. Substantiation is typically based on a specified level of harm and is determined by agency policies. Before a worker decides whether to substantiate an allegation, an investigation is conducted in which a worker interviews those involved and collects evidence related to the report. To help workers determine if abuse or neglect has occurred, agencies provide definitions of allegations, examples of incidents, and circumstances that may place a child at risk of harm. Some of the definitions in the state of Illinois are very specific while others require a great deal of judgement. For example, substantial risk of physical abuse may be defined as non-accidental danger of physical injury by an adult in the home or incidents of violence or intimidation toward the child that *might* result in injury. These definitions do not provide any guidelines on how to determine whether an act is accidental or how to assess whether current parenting behavior will lead to future physical abuse.

The study also examined associations between various child, worker, and county characteristics and substantiation. Previous studies have established that worker-level variables influence case decisions for children of color (Fallon et al., 2013; Fluke et al., 2010).

Using past research and theoretical concepts from the DME framework, this study aimed to add to the current literature on racial disproportionality by examining whether black children
are substantiated more by caseworkers when allegations are less amenable to objective verification. For allegations with high subjectivity, it was hypothesized that cases involving black families would have a greater likelihood of substantiation compared with cases involving white families. The study assumes that, when there is a lack of objective criteria to determine the presence of abuse or neglect, the potential for implicit bias increases and workers may rely on other information, such as racial constructs, to make a decision. Using race as a proxy for other information may cause unnecessary involvement or miss families in need of child welfare services. Therefore, the present chapter aimed to better understand the interacting roles of race and types of allegations in order to identify ways to improve decision-making and reduce disparate outcomes.

**Method**

Data used in the current chapter came from the Illinois Department of Children and Family Services’ (DCFS) integrated database, which is a state-level longitudinal and relational database constructed from administrative data gathered by child welfare agencies in Illinois. The DCFS uses several information systems to track children, their families and service providers. The Child Abuse and Neglect Tracking System (CANTS) for child abuse and neglect investigations is the primary data source for the current study. The CANTS contained information about when a report was made, who made the report, the date of the investigation, the type of allegation, when a finding was made, and whether the allegation was substantiated. The study also included data from the Child and Youth Centered Information System (CYCIS), which contained information on workers’ characteristics (e.g., start of employment, title of position, demographic characteristics). Census data were used to obtain average county child poverty rates from 2010 to 2015.
Sample

The analytic sample was created by linking data from CANTS and CYCIS using common identification numbers assigned to children, families, and child welfare workers. A random analytic sample of 20,000 children were selected from the DCFS database, which contained longitudinal data of over one million children. The sample had 27% missing observations for the outcome variable that was handled by list-wise deletion. The children selected were black and white and between the ages of 0 and 19 who were born between 1990 and 2015. The sample also included only black and white investigative workers who began employment at DCFS between 1990 and 2015. Thus, the sample size for analysis was 14,573. The study only focused on children’s first investigation and their most serious allegation. The seriousness of allegations was ranked in the following order: sexual abuse, physical abuse, substance exposure, neglect, emotional abuse, lack of supervision, and risk of harm.

Measures

**Dependent variable:** Case substantiation. Case substantiation status (1= yes, 0=no) was used as the outcome variable. The decision to substantiate an alleged report of maltreatment typically comes after a Child Protective Services (CPS) worker conducts an investigative assessment within 45 days of accepting a report. During the assessment, the investigative worker interviews alleged child victims, other children in the household, adult members of the household, as well as extended family and service professionals. The worker gathers all available information to determine whether or not a child has been abused or neglected. In Illinois, there are two conclusions that can result from an investigation: “unfounded” or “indicated” (i.e., substantiated).
**Child-level predictors:** *Allegation type.* Allegations were grouped into the following three categories: subjective, objective, and substance exposure. Subjective allegations, such as emotional abuse or environmental neglect, are allegations that may require a worker to rate to what extent a parent has failed to protect or provide for a child. These allegations are often less objective and may demand a great deal of judgment on the part of the worker. These decisions may be especially difficult to make for infants and toddlers and for children with language disabilities. On the other hand, allegations referring to physical signs of injury (e.g., bone fractures) are easier for workers to objectively verify using their own observation or a report from a medical provider. Although, substance exposure can also be confirmed by a medical report, it was placed into its own category in order to compare the magnitude of its association with substantiation. Table 2.1 displays the allegations that were grouped into the three categories.

Table 2.1 Allegation types

<table>
<thead>
<tr>
<th>Subjective:</th>
<th>Mental injury, substantial risk of sexual abuse, substantial risk of physical harm, inadequate supervision, inadequate food, inadequate shelter, inadequate clothing, medical neglect, failure to thrive, environmental neglect, educational neglect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Brain damage, subdural hematoma, internal injuries, burns, wounds, bone fractures, cuts, bruises, welts, human bites, sprains, dislocations, tying, close confinement, torture, sexually transmitted diseases, sexual penetration, sexual exploitation, sexual molestation, malnutrition, medical neglect of disabled infants</td>
</tr>
<tr>
<td>Substance exposure</td>
<td>Poison, substance misuse</td>
</tr>
</tbody>
</table>

**Family structure.** To measure family structure, the caretakers in the household were grouped into several categories based on their relationship to the child. Caretakers were grouped into the following categories: “kin only”, “kin and other”, “non-kin only”, “non-kin and other”, and “institution and other.” “Kin only” described households that only consisted of biological family members, such as biological parents, grandparents, aunts, uncles, and other relatives,
whereas “kin and other” included households with relatives and non-relatives, such as a mother’s boyfriend. “Non-kin only” described households with non-relatives, such as adoptive parents, whereas “non-kin and other” included homes with non-relatives and those listed as “other” in the database. “Institutional or other” included caretakers listed as “other” and institutional caretakers, as well as a combination of institutional, non-relative, and “other” caretakers.

**Type of reporter.** Reporters were grouped based on their relationship to the child or affiliation with a system or service. For example, nurses, physicians, dentists, and other medical personnel were categorized as “medical,” and attorneys, police officers, and other law enforcement personnel were labeled as “legal.” The types of reporters used in this study included medical, school, family and friends, social services, legal, anonymous, and other (i.e., child care providers).

Other covariates included child demographic variables (e.g., race, sex, and age), number of caretakers in each household, whether or not the child resided in Cook county, and mean poverty rates for each county.

**Worker-level predictors.** Length of employment and type of degree may determine workers’ knowledge and amount of work experience, and, therefore, may influence the outcome of an investigation. Thus, to account for workers’ professional background, workers’ tenure at the agency at time of investigation was measured by subtracting the date of the investigation from the date the worker started working at the agency. Workers’ education was classified into one of four categories: bachelors or master’s degree in a non-human services-related field, bachelor’s or master’s degree in a human services-related field, high school diploma, and a doctorate degree. Demographic characteristics of workers were also included in the analyses, as well as the number of home visits conducted during an investigation.
Analytic Plan

Because of the hierarchical data structure (i.e., children nested within workers and counties) and the use of a binary outcome, a multi-level logistic regression was run using \textit{xtmelogit} in \textit{Stata Statistical Software: Release 14}. Hierarchical linear modeling takes into account the effects of nesting and higher-level variables that may explain differences between individuals and groups (Raudenbush & Byrk, 2002). The following three levels initially were used in the models: child, worker, and county. However, after examining the variance components of an unconditional model, the intra class correlation (ICC) revealed that the variation in substantiation due to differences between counties was very small (<1.00). Thus, the conditional multi-level models were reduced to two levels: worker and child. Conditional models included worker- and child-level covariates hypothesized to be associated with the likelihood a child will have his or her case substantiated.

First, an unconditional model, which is a model without predictors, was used to divide the total variance in substantiation due to differences between workers. Because the average probability of substantiation may vary between workers, the unconditional model and conditional models included a random intercept for the worker level. The conditional models were an extension of the unconditional model and included all of the child and worker covariates as fixed effects, as well as a two-way interaction between child and worker race and a three-way interaction between child race, worker race, and allegation type. These interactions tested differences in the likelihood of substantiation for black and white children among black and white workers and across allegation types. The fit of each model was compared using the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC). Missing data were handled by using list-wise deletion.
Results

Descriptive statistics

*Child level.* Table 2.2 displays the characteristics of children and workers in the analytic sample. Overall, 23% of the children in the sample had a substantiated report. Nearly half the children in the sample were black (43%) and more than half were white (57%). The average age of the children in the sample was seven, and half of the sample comprised of boys. Majority of the allegations were subjective (72%) and allegations were most commonly reported by legal (20%) and school personnel (19%). Households were mostly comprised of parents or relatives (66%) with an average of 1.92 caregivers in each household. Also, 37% of the sample resided in Cook County.

*Worker level.* There were more female (65%) and white investigators (52%) than male (35%) and black investigators (48%) in the sample. Most of the workers possessed a human services-related degree (78%) and had an average of nearly 10 years of work experience. Workers averaged nearly 1 home visit during investigations. The average mean county poverty rate for the sample was 15.31.

Findings from Two-level Hierarchical Models

The unconditional model (Model 1) in Table 2.3 showed that 8% of the variation in substantiation decisions was due to differences between workers and 92% was due to differences among children nested within workers. Model 2 included only one predictor, child race, and showed that black children were 25% more likely to be substantiated compared with white children (p<.001). In model 3, black children continued to have higher odds of substantiation (OR=1.31; p<.001) and white workers were 23% more likely to substantiate an allegation compared with black workers (p<.001).
Table 2.2. Sample descriptive statistics

<table>
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<td>Yes</td>
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<tr>
<td>No</td>
<td>76.26</td>
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</table>

<table>
<thead>
<tr>
<th>Independent variables</th>
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</thead>
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<td><strong>Child-level</strong></td>
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<td>Race</td>
<td></td>
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<tr>
<td>Black (white)</td>
<td>43.99</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male (female)</td>
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<tr>
<td>Age</td>
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<tr>
<td>Allegation type</td>
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<td>Subjective</td>
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<tr>
<td>Substance exposure</td>
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<td>Reporter</td>
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<td>Social</td>
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<td>Law</td>
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<td>Other</td>
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<td>Family Structure</td>
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<td>Kin only</td>
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<td>Non-kin only</td>
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<td>Kin &amp; non-kin</td>
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<tr>
<td>Non-kin &amp; other</td>
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</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female (male)</td>
<td>65.06</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Non-human services</td>
<td>20.57</td>
</tr>
<tr>
<td>Human services</td>
<td>78.44</td>
</tr>
<tr>
<td>High school</td>
<td>.22</td>
</tr>
<tr>
<td>PhD</td>
<td>.77</td>
</tr>
<tr>
<td>Tenure</td>
<td>9.27</td>
</tr>
<tr>
<td>Number of visits</td>
<td>.93</td>
</tr>
<tr>
<td>Mean county poverty rate</td>
<td>15.31</td>
</tr>
</tbody>
</table>
Model 4 included the full list of child and worker covariates. In model 4, black children had 30% greater odds of substantiation compared with white children (p<.001). Older children were 4% less likely than younger children to receive a substantiated report (p<.001). Further, children with more caregivers in their household were 15% more likely to be substantiated (p<.001). Reports from legal professionals were 59% more likely to be substantiated compared with reports from medical professionals (p<.01), whereas all other sources of reports had lower likelihoods of substantiation than reports from medical professionals (p<.001). Compared with subjective allegations, objective allegations were 55% more likely to be substantiated (p<.001), and allegations related to substance exposure had 3.81 greater odds of substantiation (p<.001). Children living in counties with high mean poverty rates were slightly more likely to have an allegation substantiated (p<.10). Also, children residing in Cook County had 40% greater odds of being substantiated compared with children residing outside of Cook County (p<.001). Furthermore, if a child spent any time in an institutionalized setting, the child had 25% lower odds of being substantiated (p<.05).

In terms of worker characteristics, white workers were 38% more likely to substantiate compared with black workers (p<.001). Also, there was a trend toward significance, which showed workers with human services degrees were 14% less likely to substantiate an allegation compared with workers with non-human services degrees (p<.10). Workers with more years of experience were slightly less likely to substantiate cases compared with workers with few years of experience (OR=.92; p<.001). Moreover, workers who conducted more home visits during investigations were 6% less likely to substantiate a case compared with workers who conducted few home visits (p<.001).
Model 5 included all covariates from Model 4 but added a two-way interaction between worker race and child race and a three-way interaction between worker race, child race, and allegation type. Most of the main effects between models 4 and 5 were nearly identical.

Predictive margins were used to interpret the model’s interactions. Figure 2.1 displays the results of the significant three-way interaction from Table 2.3. Compared with allegations that were categorized as subjective, the odds of substantiation were higher for allegations related to substance exposure and for those categorized as objective for both black and white workers. However, the odds of substantiation were highest for allegations related to substance exposure. Black children had a higher likelihood of being substantiated for substance-related allegations compared with white children among black and white workers; however, white workers (OR=4.22) were more likely than black workers (OR=3.16) to substantiate black children with substance-related allegations compared with white children, who had much lower odds of substantiation among both white and black workers (OR=.35 vs. 1.06, respectively). The difference in odds of substantiation was significant between both races of workers and children for allegations related to substance exposure (p<.05). That is, white workers’ likelihood of substantiating black children was significantly different from black worker’s likelihood of substantiating black children for substance-related allegations. Moreover, contrary to the study’s hypothesis, black and white children with subjective allegations were substantiated at almost similar rates by black and white investigators.
Table 2.3. Predictors of substantiation (N= 14,573)

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=14,573</td>
<td>N= 14,573</td>
<td>N= 14,573</td>
<td>N=13,520</td>
<td>N=13,520</td>
</tr>
</tbody>
</table>

**Intercept**

| 0.3 *** | 0.27 *** | 0.23 *** | 0.44 *** | 0.41 *** |

**Child-level**

**Race**

| Black (white) | 1.25 *** | 1.31 *** | 1.3 *** | 1.41 ** |

**Gender**

| Male (female) | 1.01 | 1.01 |

| Age | 0.96 *** | 0.96 *** |

**Allegation type (subjective)**

| Objective | 1.55 *** | 1.45 ** |

| Substance exposure (SE) | 3.81 *** | 5.67 *** |

**Reporter (medical)**

| School | 0.45 *** | 0.46 *** |

| Family | 0.37 *** | 0.37 *** |

| Anonymous | 0.17 *** | 0.18 *** |

| Social | 0.71 *** | 0.72 *** |

| Law | 1.59 ** | 1.62 ** |

| Other | 0.32 *** | 0.32 *** |

**Family Structure (kin only)**

| Non-kin only | 1.21 | 1.21 |

| Kin and other | 1.04 | 1.04 |

| Nonkin and other | 0.68 | 0.68 |

| Institution and other | 0.75 * | 0.76 * |

**Total caregivers**

| 1.15 *** | 1.16 *** |

**Cook**

<p>| 1.4 *** | 1.38 *** |</p>
<table>
<thead>
<tr>
<th>Worker-level</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White (black)</td>
<td>1.23</td>
<td>**</td>
<td>1.38</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female (male)</td>
<td>1.03</td>
<td></td>
<td>1.03</td>
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<tr>
<td><strong>Education (non-human services)</strong></td>
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<tr>
<td>Human services</td>
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<td>+</td>
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<tr>
<td>High school</td>
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</tr>
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<td>PhD</td>
<td>1.19</td>
<td></td>
<td>1.19</td>
</tr>
<tr>
<td><strong>Tenure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.92</td>
<td>***</td>
<td>0.92</td>
</tr>
<tr>
<td><strong>Number of visits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.94</td>
<td>***</td>
<td>0.94</td>
</tr>
<tr>
<td>Mean county poverty rate</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>1.01</td>
<td>+</td>
<td>1.01</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child race*worker race</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Child race<em>allegation type</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>worker race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black child, objective, white worker</td>
<td></td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>Black child, SE, white worker</td>
<td></td>
<td>5.46</td>
<td>*</td>
</tr>
</tbody>
</table>

| AIC                              | 15764.26 | 15742.36 | 15733.44 | 13110.75 | 13088.33 |
| BIC                              | 15779.43 | 15765.12 | 15763.78 | 13313.57 | 13343.74 |

Note: p<.001***, p<.01**, p<.05*, p<.10+
Table 2.4. Predictive margins for child race x worker race x allegation type

<table>
<thead>
<tr>
<th></th>
<th>Black workers</th>
<th>White workers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>White children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective</td>
<td>.15</td>
<td>.19</td>
</tr>
<tr>
<td>Objective</td>
<td>.23</td>
<td>.37</td>
</tr>
<tr>
<td>Substance exposure</td>
<td>1.06</td>
<td>.35</td>
</tr>
<tr>
<td><strong>Black children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective</td>
<td>.20</td>
<td>.28</td>
</tr>
<tr>
<td>Objective</td>
<td>.34</td>
<td>.45</td>
</tr>
<tr>
<td>Substance exposure</td>
<td>3.16</td>
<td>4.22</td>
</tr>
</tbody>
</table>

*Figure 2.1 Predictive margins of child race, worker race, and allegation type*
Discussion

Race and substantiation

Using concepts from the decision-making ecology framework, the current study examined child, worker, and county characteristics associated with substantiation. The primary hypothesis suggested that reports involving black children and reports that were subjective in nature would have an increased likelihood of being substantiated by white workers. Overall, this hypothesis was not supported. Findings revealed that the likelihood of substantiation varied by race of the worker and the child and the type of allegation being investigated. Children in the sample had greater odds of being substantiated if they had an allegation that was substance-related, and this finding held for both black and white workers. However, white workers were significantly more likely than black workers to substantiate a substance-related allegation if the child was black.

The overall greater likelihood of substantiated allegations related to substance exposure suggests that these allegations were clearly defined and easily observed and confirmed by physical evidence than allegations with less defined criteria and lack of physical evidence. Therefore, it is unclear why black children had a higher likelihood of substantiation for substance-related allegations by white workers compared to their white counterparts with the same allegations. This finding suggests other factors, such as worker bias, may play a role in determining whether this type of allegation is substantiated. If white investigators have been found in other studies to substantiate physical abuse allegations more than black investigators (Jent et al., 2011; Testa & Rolock, 2005), then substantiation rates can reflect workers’ acceptance of and values regarding certain types of allegations. According to Jent and colleagues (2011), child welfare workers likely differ in their perceptions about physical discipline, and,
therefore, level of harm inflicted on the child may vary across workers, reducing objectivity of investigative assessments. Therefore, findings from the current study may imply some workers judge level of future risk based on their perceptions of race and the type of allegation being investigated. Future research should explore how substance-related allegations are perceived by workers and whether their perceptions and subsequent decisions to substantiate vary based on the race of the parent and child involved in the allegation.

**Type of reporter and substantiation**

In the current study, reports from school professionals, family members, anonymous reporters, social service professionals, and other reporters were less likely to be substantiated compared to reports from medical and legal professionals. These findings are consistent with prior research. For example, using administrative data from the Texas Department of Family and Protective Services, Dettlaff et al. (2011) found that reports from legal and medical reporters were almost 3 times more likely to be substantiated compared to reports from other sources. In one particular study, objective reports such as reports of domestic violence reported by police and positive toxicology reports by medical providers were strongly associated with substantiation (Williams et al., 2011). Another study found that allegations of physical abuse had a greater likelihood of being substantiated when reported by mandated reporters (King et al., 2013).

The greater likelihood of substantiation from mandated reporters, such as medical and legal professionals, may be due to the quality and amount of evidence mandated reporters are able to collect through their own assessments. Also, because child welfare agencies often collaborate with the legal and medical communities for services, child welfare workers may have established relationships with reporters. Thus, the high number of substantiated reports from
mandated reporters could be due to their professional role, relationship with agencies, amount of evidence collected, or the perceived objectiveness of their observations by child welfare workers.

**Child characteristics**

Several child characteristics were negatively associated with substantiation. Consistent with previous studies (e.g., Detlaff et al., 2011; Klevens & Leeb, 2010; Scannapieco & Connell-Carrick, 2005), older children in the sample were less likely to be substantiated compared to younger children. Prior research shows that very young children are vulnerable to certain maltreatment-related risk factors, such as pre-natal drug exposure and maternal mental health problems, which place them at heightened risk for substantiated maltreatment (McGlade et al., 2009; Williams et al., 2011).

Contrary to past research on single-parenthood and substantiation (Berger, 2004), findings from the present study showed that more caregivers in the home increased the likelihood of substantiation. This finding, along with past research, suggest that the composition of the household may be more important than the number of caregivers. For example, Berger (2004) found that homes with a biological mother and non-biological father had caregiving environments that were lower in quality compared to homes with two biological parents. Future research should include the number of and composition of primary caregivers (e.g., two biological parents, one biological parent) when examining factors considered during child abuse investigations.

**Worker characteristics**

Characteristics of workers were also associated with substantiation. Specifically, a greater number of home visits and years of experience decreased the likelihood of substantiation. Moreover, white investigators compared to black investigators were more likely to substantiate a
report of abuse. Also, workers with an educational degree in a human-services related discipline were less likely to substantiate an allegation than workers with a non-human services degree. These findings suggest work experience and type of educational background may improve decision-making during investigations. Workers’ prior experience and knowledge may improve decisions about whether a case meets a certain level of risk or harm in order to be substantiated.

**Limitations**

Although the current study adds to the literature on racial disproportionality by identifying types of allegations associated with racial differences in case substantiation, the following limitations should be considered when interpreting findings. While many different factors have been theorized and tested to predict black children’s initial and prolonged involvement in the child welfare system, administrative data used in this study had limited information available on families, workers, and agencies. It would have been ideal to include additional predictors related to a family’s financial status, resource availability within communities, neighborhood safety, scores from risk assessments, worker perceptions of allegations and of communities, the relationship quality between workers and families, and other potential risk factors related to child welfare involvement. Another possible limitation in the study is the categorization of allegations into three groups. Also, because this study used data from one state and only focused on black and white individuals, findings may not be generalizable to other populations and geographic locations.

**Conclusion**

Findings from this study suggest racial differences in substantiation exist based on the race of the worker and type of allegation being investigated. However, less is known in the research literature about the investigative process and in what ways case, community, and
agency factors influence the process before a decision is made to indicate a report. More research is needed to examine the reliability and validity of mandated reporting procedures, the impact of training for mandated reporters and investigative workers, and how evidence from mandated reporters are used in child welfare investigative assessments. A closer examination would reveal how physical evidence is interpreted by workers to make substantiation decisions and whether interpretations vary by race of the family. Using administrative data is insufficient in determining attitudinal and behavioral correlates of substantiation. Rigorous examinations of these correlates, which are often outside the scope of administrative data, could confirm or reject the presence of differential treatment of racial minorities in child welfare. The identification of risk factors and potential sources of bias that may increase or sustain racial disparities are significant for the development of interventions to reduce racial disproportionality in child welfare.
REFERENCES


CHAPTER 3: SUBSTANTIATION DISPARITIES AMONG CHILD WELFARE CASEWORKERS: A MULTILEVEL STUDY

Introduction

Since the inclusion of black children in public child welfare systems, black children have been consistently overrepresented in the child welfare system. They are more likely to reported, have their allegations investigated and substantiated, are less likely to receive mental health services, and are more likely to enter and stay in foster care for long periods of time compared with their white counterparts (Ards et al., 2003; Courtney, 2000; Gardland et al., 2000; Gudino, Martinez, & Lau, 2012; Hill, 2007; Kim, Chenot, & Ji, 2011; Lu et al., 2004).

Child welfare involvement has been linked to short and long-term negative outcomes. For example, children with substantiated cases of maltreatment are more likely to experience subsequent reports compared to children with unsubstantiated cases (Fuller & Nieto, 2009). In terms of race, black youth with substantiated cases are more likely to experience an arrest compared to other racial and ethnic groups (Chiu, Ryan, & Herz, 2011). Deciding to place a child in a group home or disrupt a current placement has been linked to high rates of juvenile arrests (Ryan et al., 2007). Further, findings from a large sample of maltreated children in Illinois showed that if children on the margin of placement were placed in foster care, they would have a delinquency rate three times that of children who were never placed in foster care (Doyle, 2007). Because decisions made by caseworkers can greatly impact the outcomes of children with histories of maltreatment, the decision-making process is an important target for
intervention to prevent further harm and to improve families’ capacity to provide safe and nurturing environments for their children.

Despite its prevalence and impact, there is little consensus in the research literature about the sources of racial disparity. Recent research has focused on disentangling the many factors believed to be associated with racial disparity. For example, several bodies of evidence point to racial bias, external and community risk factors, and agency factors as contributing to the prevalence of disparate child welfare outcomes. However, social and economic policies, societal attitudes about race, and problems within communities are outside the scope of influence for child welfare agencies. By focusing on internal policy and practice changes, agencies have the ability to mitigate rather than exacerbate the impact external and community factors have on families of color.

Although many studies have examined racial disparities at the state or county levels, less is known about predictors of racial disparity at the worker level. This chapter adds to the literature by identifying characteristics of workers and their caseloads that might increase or reduce racial disparities found in investigation outcomes. Thus, the following literature review and subsequent analyses will focus on workers and the outcomes of their child maltreatment assessments.

**Literature Review**

**The Impact of Caseworkers**

Caseworkers are considered gatekeepers of child welfare services and help determine the level of child welfare involvement for children and families based on their assessment of risk. Their characteristics, as well as their decisions and interactions with families can determine provision of services, engagement of caregivers, and child outcomes. For example, research
shows the quality of worker-caregiver relationships is associated with caregivers obtaining needed services (Cheng & Lo, 2012). When workers provide direct assistance, caregivers are more likely to receive mental health services (Bunger, Chuang, & McBeath, 2012). In addition, when the race/ethnicity of a worker matches that of the caregiver, caseworkers increase their efforts to connect caregivers with services (e.g., McBeath, Chuang, Bunger, & Blakeslee, 2014). Thus, certain characteristics of workers and families and the level of assistance provided increase the probability that caregivers will use services, which, in turn, could increase the likelihood of family reunification (D’Andrade & Nguyen, 2014).

How effective workers are in assisting families is also determined by the organizational climate and culture of the agency. Organizational climates that promote high engagement of workers with families are associated with greater improvements in child behavioral outcomes (Glisson & Green, 2011; Williams & Glisson, 2014). Also, children in agencies with low rates of worker turnover have greater odds of reunification compared with children who experience multiple caseworkers due to high worker turnover (Ryan, Garnier, Zyphur, & Zhai, 2006).

Risk Assessment

After a report of abuse or neglect has been accepted, caseworkers conduct an investigation in order to confirm the allegation and to determine the level of harm and the type of services needed to address any child safety concerns. Although these decisions are believed to be dependent on case characteristics (i.e., evidence of abuse, family history of maltreatment), research indicates child characteristics are associated with disparate outcomes in CPS investigations. For example, regardless of a worker’s racial identity and the characteristics of a case, research shows that caseworkers are more likely to substantiate black families than white families for maltreatment (Dettlaff et al., 2011; Fluke et al., 2003). This is similar to other
evidence indicating perceptions of child age and gender also influence substantiation decisions (Cross & Casanueva, 2009).

Differences in perceptions of risk suggest that other factors, such as characteristics of the child, may influence a worker’s decision threshold—with black children removed at a lower risk threshold than white children (Detlaff et al., 2011). For example, Rivaux and colleagues (2008) found that although black families were assessed as having lower risk, black children were over 70% more likely to be removed by caseworkers compared to white children. Similarly, in another study, black mothers who were interviewed by white interviewers were rated more negatively on maternal harshness and child behavior problems than those who had black interviewers (Berger, McDaniel, and Paxson, 2005). However, when examining differences between caseworkers, one study found no evidence of bias and that black caseworkers were more likely to substantiate black children and rate them as being more likely to experience a higher level of harm than white children (Font, Berger, Slack, 2012). However, this finding may be due to a greater proportion of children assigned to black caseworkers (Font et al., 2012; Perry & Limb, 2004). Moreover, research suggests some children’s cases are unsubstantiated despite meeting criteria for substantiation (Cross & Casanueva, 2009) and future child safety risk may be similar between substantiated and unsubstantiated cases (e.g., Drake et al., 2003; Kohl, Jonson-Reid, & Drake, 2009).

Mixed findings about the predictors of case substantiation suggest that outcomes of these decisions are not consistent across characteristics of children and across different levels of harm. Therefore, substantiation may not be an accurate indicator of risk of harm. In fact, it may be of more harm for children in need of services who are considered low risk by caseworkers. While black children have higher rates of substantiated maltreatment compared with white children, it
is not clear whether black children are abused more frequently, are more likely to be reported, or whether their reports are more likely to be substantiated. Thus, more research is needed to understand the dynamics of decision-making during CPS investigations.

**Theoretical Perspectives for Understanding Race and Decision Making**

*Implicit Social Cognition Framework.* According to the social cognition framework, racial bias is the byproduct of implicit or unconscious cognitive mechanisms (Gawronski & Payne, 2011). In stressful, fast-paced environments, workers may unknowingly use automatic racial associations to infer risk or need (Gawronski & Payne, 2011). That is, individuals may automatically internalize negative messages about black Americans, which can influence how they perceive and interact with black families. In the case of child welfare workers evaluating a black family’s case of maltreatment, workers may unconsciously evaluate black families more negatively based on negative stereotypical expectations than they would a white family’s case. Although implicit biases are difficult to control, their influence on decision making can be lessened by consciously imagining counter-stereotypical situations or using other intentional activities, such as perspective-taking (Blair, Ma, & Lenton, 2001; Dasgupta & Greenwald, 2001; Fazio, Blascovich, & Driscoll, 1992; Kawakami et al., 2000).

*Signal Detection Theory.* Another consequence of implicit bias in the context of high-organizational demands is decision-making errors. Signal Detection Theory (SDT), often used to evaluate sensitivity in decision-making, posits that individuals vary in their ability to correctly distinguish signals (i.e., maltreatment) from noise (i.e., misinformation or irrelevant information; Anderson, 2015). This theory suggests that decision makers base their decisions relative to their internal thresholds or sensitivity for taking action. SDT posits that there are three overarching elements of decision making: the probability of detecting a signal relative to noise, the level of
uncertainty when signals and noise are indistinguishable, and consequences of decisions (Lynn & Barrett, 2014).

Depending on their ability to detect true signals and the consequences of failing, decision makers may possess a conservative bias (i.e., a higher threshold for detecting a signal is present) or a liberal bias (i.e., a lower threshold for signal detection). For example, detecting many signals and causing costly false alarms may promote conservative decision making, whereas, detecting few signals and producing costly misses may promote liberal decision making (Lynn & Barrett, 2014). In terms of child welfare, Mumpower and McClelland (2014) found that black families have higher rates of false positives—reports but no findings of actual maltreatment—compared to other groups, as well as higher rates of false negatives—incidents where no reports were made but children were indeed neglected or abused. Although black children also have higher rates of true positives, the error rates for detecting maltreatment are higher for them compared to white children. Findings from this study suggest that different decision thresholds are used for black families in the reporting and substantiation process.

An Integrative Framework: The Decision-Making Ecology Model

The Decision-Making Ecology (DME) framework provides a systemic context for child welfare decision-making and includes a range of contextual, family, organizational, and decision-maker factors hypothesized to interact and influence decisions and child outcomes (Baumann, Dalgleish, Fluke, & Kern, 2011). The DME posits that the psychological process of decision-making involves aspects of implicit social cognition (i.e., racial bias, gender bias), the decision maker’s threshold for detecting maltreatment based on experience, and changes in decision thresholds resulting from consequences of decisions (e.g., false alarms), new experiences, or changes in decision-making policies. For example, a new worker might tend to
substantiate a high number of cases, whereas a more experienced worker, knowing the consequences of a decision on family and child well-being, might be more conservative when deciding to substantiate a case. Thus, the current study uses components of the DME to examine associations between factors related to caseworkers and their caseloads and their levels of substantiation disparity.

**Measures of Disparity**

Various metrics have been used by researchers to measure disproportionality and disparity. Disparity measures calculate differences in outcomes between racial or ethnic groups, whereas disproportion measures calculate the degree to which a racial or ethnic group is over- or underrepresented at a particular point in the child welfare continuum relative to their representation in the general population. Thus, the reference group for disproportion measures is a particular group’s percentage in the general population, and the reference group for disparity measures is another racial or ethnic group (Hill, 2006; Rolock, 2011). Disparity measures can also calculate racial group differences across geographic areas and over time. Although their interpretation differs based on the reference group, disparate treatment of black families contributes to their disproportionate representation in the child welfare system by impacting rates black children enter and exit the system (Courtney & Skyles, 2003; Wulczyn & Lery, 2007).

Furthermore, although disparity measures are beneficial for making comparisons across groups, places, and time, they do not reveal whether or not disparities are based on real differences in risks, disparate treatment, or both. Some scholars argue that data from racial disparity measures show a system that does not have the adequate resources or overall capacity to support the needs of poor and marginalized families (Tilbury & Thoburn, 2009). Although there is general consensus that some degree of disparity exists between racial groups due to
psychosocial and economic effects of systemic issues, there is no consensus regarding how much
disparity should be expected from real risks versus disparity associated with how the community
and the child welfare system treat people exposed to those risks.

Although the literature review summarizes several risk factors of racial disproportionality
and ways to measure disparity, the current study mainly focuses on characteristics of
caseworkers and their caseloads and whether these characteristics are associated with racial
differences in substantiation. The study will use the disparity index (DI) to measure workers’
substantiation disparity scores for each year of employment and to examine whether disparity
scores vary across worker and caseload characteristics and over time (Shaw et al., 2008). The
study hypothesis is that substantiation disparity will decrease over time as workers gain more
experience; disparities in substantiation will be associated with child race.

Method

Sample

Administrative data from Illinois’s Department of Children and Family Services (DCFS),
which contained information on child abuse and neglect investigations, were used for the current
study. Data were comprised of demographic information on children, their caregivers, and case
workers, and included information on the type of allegation, who reported the allegation, and
whether and when an allegation was substantiated. Data on investigations from 1990 to 2015
were selected to examine black and white workers’ yearly substantiation disparity rate and
changes in substantiation disparity over the worker’s length of employment (N=593,896). The
data, originally at the child level, were restructured to the caseworker level by aggregating child-
level variables. This resulted in a dataset of 1,039 caseworkers with each having multiple rows
associated with the number of years a worker conducted investigations.
Measures

**Dependent variable: Substantiation disparity (time-varying).** Each worker’s substantiation disparity score was used to examine the level of racial disparity in his or her caseload for each year of employment and whether the level changed over time as workers gained more experience. Substantiation disparity was calculated by dividing the proportion of black children substantiated out of all black children investigated by the proportion of white children substantiated out of the total number of white children investigated (see Table 3.1). Thus, a score of one would mean black and white children were equally substantiated by a worker. On the other hand, a score of 2.5 would mean that black children were over two times more likely to be substantiated by a worker compared with white children. Workers who had all white or all black children in their caseload were excluded from analyses (N=257).

Table 3.1 Calculation of substantiation disparity index.

<table>
<thead>
<tr>
<th># of black children substantiated</th>
<th># of black children investigated</th>
</tr>
</thead>
<tbody>
<tr>
<td># of white children substantiated</td>
<td># of white children investigated</td>
</tr>
</tbody>
</table>

**Independent variables: Tenure (time-varying).** Each worker’s length of employment at time of investigation was measured by subtracting the date of investigation from his or her employment start date. If start of employment occurred after the investigation date, which was likely due to data entry errors, then the case was excluded from analysis (N=14).
**Worker characteristics.** Workers were grouped into five entry cohorts (e.g., 1990-1995, 1996-2000, 2001-2005, 2006-2010, 2011-2015) based on their start date at their agency. Each worker’s race and highest degree achieved (e.g., bachelor’s or master’s in human services, bachelor’s or master’s in non-human services, high school, doctorate) were also included.

**Annual Caseload Characteristics (time-varying).** When a worker conducts an investigation, the type of allegation is recorded in the database. The allegations were categorized as physical abuse, sexual abuse, neglect, and substance-related abuse. For example, “bone fractures” and “cuts, bruises, and welts” were labeled as physical abuse, whereas “inadequate supervision” and “inadequate clothing” were labeled as neglect. The number of substantiated cases for each type of allegation was summed for each year of employment.

In addition, the following covariates were calculated for each year of employment: total number of reports from each type of reporting source (e.g., medical, social services, school, family, anonymous, legal, and other), number of children in caseload, average number of home visits, average age of children in caseload, and percent of black children and males in caseload. The mean poverty rate for each county in Illinois (from years 2010 to 2015) was used to control for the influence of poverty on substantiation disparity.

**Analytic Plan**

A two-level hierarchical linear modeling (HLM) was used to examine how time, worker, and case characteristics influence changes in substantiation disparity scores over time. Hierarchical linear modeling was selected because of its ability to account for multiple observations nested within individuals. For example, each investigative worker’s caseload includes varying numbers of children with different allegations and different case outcomes.
Thus, the nesting structure of the data included time (i.e., year of employment) nested within workers.

The dependent variable had a negatively skewed distribution and violated the normality assumption in HLM. Thus, a natural-logarithm (ln) transformation was used for substantiation disparity. In order to simplify interpretability of results, exponentiated coefficients were used to display model results.

Grand-mean centering, recommended for HLM, was used for the time variable. For example, the intercept of each model is the disparity score at the average year (9.234) of employment. An unconditional means model and unconditional growth model estimated the outcome variation across people without and with time (Singer & Willet, 2003). They also provided baselines to evaluate subsequent model building. Therefore, an unconditional model was implemented first to estimate the average disparity index score for each worker. Next, an individual growth model was used to predict workers’ average substantiation disparity over time. Afterwards, subsequent models included predictors to examine how characteristics of workers and their caseloads influenced variance in substantiation disparity. Random effects were added to improve model convergence and to correct for heterogeneity associated with each unit at levels one and two (Guo, 2005, p. 641). List-wise deletion was used for missing data (11.74%).

Results

Descriptive Statistics

Table 3.2 displays descriptive statistics of predictors used in the outcome models. Over 40% of workers and children in each caseload per year were black (47% v. 44%). Workers averaged a caseload of nearly 74 children each year. Males comprised of nearly half of children investigated each year and the average age of children in a caseload each year was almost seven
and a half. Workers averaged one home visit during an investigation. Also, the highest average number of substantiated reports came from representatives of the law, such as law enforcement personnel and lawyers (4.83), while the lowest came from other reporters, such as child care workers. Also, the highest average number of substantiated allegations was related to neglect (5.34), while the lowest average was for allegations related to substance exposure (.84). Workers averaged 9 years of employment, and most (54%) started working between the years of 1990 and 1994. Majority of workers (78%) held a bachelor’s or master’s degree in human services.

The average substantiation disparity index was higher for white workers compared with black workers (1.27 vs. 1.04, respectively). Workers who started working between 1990 and 1994 had lower mean substantiation disparity scores compared with workers in later entry cohorts (1.13), and workers in the 2010 to 2015 cohort had the highest (1.17). Workers with a doctorate degree had the lowest average disparity scores (1.03), whereas those possessing only a high school degree had the highest (1.69). Also, workers with a human-services related degree had lower average disparity scores compared with those with a non-human services degree (1.12 vs. 1.22, respectively).

Table 3.2 Sample Descriptive Statistics N=7,049

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean/%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children</strong></td>
<td></td>
</tr>
<tr>
<td>% black/year</td>
<td>0.44</td>
</tr>
<tr>
<td>Mean child age/year</td>
<td>7.41</td>
</tr>
<tr>
<td>% males/year</td>
<td>0.49</td>
</tr>
<tr>
<td># of children/year</td>
<td>74.26</td>
</tr>
<tr>
<td><strong>Child Welfare Worker</strong></td>
<td></td>
</tr>
<tr>
<td>Mean home visit/year</td>
<td>1.01</td>
</tr>
<tr>
<td>Worker race(white)</td>
<td>52.81 %</td>
</tr>
<tr>
<td>Worker education</td>
<td></td>
</tr>
<tr>
<td>Non-human services</td>
<td>20.41 %</td>
</tr>
<tr>
<td>Human services</td>
<td>78.63 %</td>
</tr>
<tr>
<td>School Level</td>
<td>Percentage</td>
</tr>
<tr>
<td>--------------</td>
<td>------------</td>
</tr>
<tr>
<td>High school</td>
<td>0.23 %</td>
</tr>
<tr>
<td>PhD</td>
<td>0.73 %</td>
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</table>

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>1990</td>
<td>54.69 %</td>
</tr>
<tr>
<td>1995</td>
<td>23.74 %</td>
</tr>
<tr>
<td>2000</td>
<td>13.06 %</td>
</tr>
<tr>
<td>2005</td>
<td>5.92 %</td>
</tr>
<tr>
<td>2010</td>
<td>2.59 %</td>
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<table>
<thead>
<tr>
<th>Tenure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.234</td>
</tr>
</tbody>
</table>

**Maltreatment Types**

- # physical/year: 3.81
- # sexual/year: 3.91
- # neglect/year: 5.34
- # SEI/year: 0.84

**Sources of Reports**

- anonymous: 0.68
- family: 1.76
- legal/law: 4.83
- medical: 2.78
- school: 1.58
- social services: 1.8
- other: 0.32

<table>
<thead>
<tr>
<th>County</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook county</td>
<td>60.70</td>
</tr>
</tbody>
</table>

**Average county poverty**

- 5-10%: 6.37 %
- 10-15%: 13.75 %
- 15-20%: 77.92 %
- 20%+: 1.96 %

**Hierarchical Linear Modeling**

Table 3.3 displays the exponentiated coefficients of the analysis. A fully unconditional two-level model was run to identify the amount of variance in substantiation disparity associated with each level. The model revealed 94.8% of the variation in substantiation disparity was due to temporal change and 5.2% was due to workers. Thus, temporal change explained majority of the variation in substantiation disparity than differences between workers. Results indicated that the
sample of workers had an average substantiation disparity index of 1.158, which means, on average, black children had a substantiation disparity score 15% points higher than white children in the sample. In the individual growth model (Model 2), the intercept remained the same, and the model did not show a significant association between substantiation disparity and length of employment.

Model 3 added one predictor, the race of a worker. Results from Model 3 showed that white workers’ disparity scores were 22% higher than black workers’ disparity scores $(p<.001)$. However, when the percentage of black children in a caseload each year was added to the model, worker race was no longer significant. Model 4 showed that, compared with workers whose caseloads were between 40 and 60% black, workers who had less than 20% of black children in their caseloads were 19% more likely to have high disparity scores. Also, workers whose caseloads were comprised of 80% or more black children were 25% less likely to have high disparity scores compared with those who had 40 to 60% of black children in their caseloads $(p<.001)$.

The final model included all worker and caseload characteristics. Results indicated that the mean substantiation disparity index at the average year of employment was 1.36 $(p<.001)$. Workers whose caseloads had less than 20% of black children in them continued to have 23% higher disparity scores compared with workers whose caseloads had 40-60% of black children in them. Also, workers whose caseloads had more than 80% of black children had 28% lower disparity scores than workers whose caseloads had 40-60% of black children in them $(p<.001)$. In addition, workers with a degree in a human services field had disparity scores 6% lower than those with a non-human services degree $(p<.05)$. There was a significant trend that showed
reports received from medical sources were associated with a 2.6% increase in substantiation disparity (p<.10). The final model had better fit indices than prior models.

Figure 3.1 displays associations between racial composition of caseloads and substantiation disparity stratified by race of the worker. The reference group for comparisons was workers who had 40 to 60% of black children in their caseloads. These findings indicate both black and white workers had high levels of substantiation disparity when black children made up less than 20% of the caseload (p<.001). Additionally, black and white workers had similar levels of disparity when their caseloads consisted of at least 80% of black children (p<.001). Thus, the figure displays a downward trend indicating lower disparity levels associated with higher percentages of black children in caseloads.
Table 3.3. HLM Results for $\ln$(substantiation disparity)

<table>
<thead>
<tr>
<th>Effect and Variable</th>
<th>N=7,049</th>
<th>N=7,049</th>
<th>N=7,049</th>
<th>N=7,049</th>
<th>N=6870</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Effects</td>
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<tr>
<td>Intercept</td>
<td>1.158</td>
<td>***</td>
<td>1.158</td>
<td>***</td>
<td>1.041</td>
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<tr>
<td>Tenure</td>
<td>0.997</td>
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<td>0.998</td>
<td></td>
<td>0.997</td>
</tr>
<tr>
<td>Worker Race (white)</td>
<td></td>
<td></td>
<td>1.221</td>
<td>***</td>
<td>1.029</td>
</tr>
<tr>
<td>Percentage of black children/year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-20%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.198</td>
</tr>
<tr>
<td>20-40%</td>
<td></td>
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<td></td>
<td></td>
<td>0.946</td>
</tr>
<tr>
<td>40-60% (ref)</td>
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<td></td>
<td></td>
<td>0.971</td>
</tr>
<tr>
<td>60-80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.751</td>
</tr>
<tr>
<td>80-100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Avg home visit/year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worker education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-human services (ref)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
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<td>Cohort</td>
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<tr>
<td>1990 (ref)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1995</td>
<td></td>
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Note: *** p < 0.001, * p < 0.05
<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
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<tbody>
<tr>
<td>2000</td>
<td>0.969</td>
</tr>
<tr>
<td>2005</td>
<td>1.009</td>
</tr>
<tr>
<td>2010</td>
<td>0.978</td>
</tr>
</tbody>
</table>

**Children**
- avg child age/year: 0.985
- % males/year: 0.843
- # of children/year: 1.00

**Maltreatment Types**
- # physical/year: 0.996
- # sexual/year: 0.991
- # neglect/year: 1.006
- # sei/year: 0.985

**Sources of Reports**
- anonymous: 0.991
- family: 1.003
- legal/law: 1.002
- medical: 1.026
- school: 1.00
- social services: 0.991
- other: 0.979

**Cook county**

**Mean County Poverty Rates**
- 0-5% (ref): 1.002
- 5-10%: 1.023
- 10-15%: 1.024
- 20%+: 1.124
<table>
<thead>
<tr>
<th></th>
<th>Caseworker</th>
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<tr>
<td></td>
<td>0.04</td>
<td>0.037</td>
<td>0.026</td>
<td>0.014</td>
<td>0.010</td>
</tr>
<tr>
<td>Time</td>
<td>0.76</td>
<td>0.753</td>
<td>0.752</td>
<td>0.747</td>
<td>0.741</td>
</tr>
<tr>
<td>ICC</td>
<td>.051</td>
<td>.047</td>
<td>.034</td>
<td>.018</td>
<td>.014</td>
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</table>

<table>
<thead>
<tr>
<th>Model Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIC</td>
</tr>
<tr>
<td>BIC</td>
</tr>
</tbody>
</table>

Note: Reference group for categorical variables is shown in parentheses after variable name. *p<.05, **p<.01, ***p<.001, +p<.10, two-tailed test.
In terms of race, model 3 revealed that white workers had higher scores of substantiation disparity than black workers. However, the association disappeared when other predictors were added to the model. This finding suggests that the race of a worker was not the most important predictor of racial disparities in case substantiation. Thus, if other important predictors of racial disparities are not controlled for, then any significant association between a worker’s race and an indicator of racial disparity may be misleading. Once the percentages of black children in caseload were added, the relationship between worker race and substantiation disparity was no longer significant. In fact, the racial composition of the caseload was the strongest predictor in the final model. Findings indicated that, for white and black workers, high percentages of black
children in a caseload were associated with lower levels of racial disparity. However, small percentages of black children were associated with higher levels of racial disparity. This finding suggests that workers are more likely to substantiate children who do not match the race of the majority in their caseloads than those whose race does match. This finding may suggest that because workers tend to use knowledge and experience from previous cases to inform decisions, black children in a majority white caseload may stand out among workers as being at higher risk of harm. This may be due to the fact that their families, who tend to have a higher probability of exposure to maltreatment-related risks, may not share the same characteristics or circumstances as other families in the caseload.

**Education and Substantiation Disparity**

In terms of worker education, workers with a degree in a human services field (i.e., social work, psychology, counseling) had lower disparity levels than those with a degree in another field. This finding suggests that having knowledge of human development and skills to implement social interventions to improve the lives or conditions of individuals, families, and communities can reduce racial differences in substantiations. It is likely that workers possessing these degrees had exposure to content on systemic oppression and culturally competent, evidenced-based practices. For example, typically workers with a master's in social work (MSW) are required to complete a certain number of clinical hours in practice settings before obtaining their degree. Some research shows caseworkers with an MSW perform social work tasks (i.e., permanency planning) better when compared with caseworkers without an MSW (Albers, Reilly, & Rittner, 1993). Also, children assigned to a caseworker with an MSW spend less time in foster care as compared with children assigned to a caseworker without an MSW (Ryan et al., 2006).
Thus, prior practice experience with diverse populations and knowledge from relevant coursework may contribute to lower disparity levels among those with human services-related degrees.

**CPS Report Sources and Substantiation Disparity**

In terms of reporters, there was a significant positive trend for reports received from medical personnel that were substantiated by caseworkers. According to previous research, racial disparities are also found at the reporting stage. It is possible biases from mandated reporters in the community can contribute to high numbers of reports agencies receive about black children (Drake & Zuravin, 1998; Chand, 2000). For example, one study found that white women and black women were equally likely to test positive for drugs, but black women were more likely to be reported to CPS after giving birth (Karp, 2001). Another study found, after controlling for insurance status and likelihood of abuse, nearly 53% of reports of suspected child abuse were filed for minority children with bone fractures versus 22% for white children with similar fractures (Lane, Rubin, Monteith, & Christian, 2002). Also, King, Lawson, and Putnam-Hornstein (2013) found higher rates of substantiated allegations from reports by medical professionals, as well as other professional mandated reporters. The current study found nearly a three percent increase in substantiation disparity associated with a one-unit increase in total number of substantiated reports received from medical providers. Thus, workers have a greater propensity to substantiate allegations received from medical providers for black children than their white counterparts. The degree of racial differences in substantiations of allegations from medical professionals could also indicate an underreporting of white children. Thus, substantiation disparities may be explained by biases in the reporting of black children by medical providers and the evaluations of these allegations by child welfare caseworkers.
Limitations

Despite the strengths of the study, which include examining substantiation disparity at the worker level and its association with characteristics of caseload and workers, a few limitations should be noted. First, although the current study only examined black-white racial differences, other racial and ethnic minorities are also impacted by racial disparities in child welfare. Future studies should include children and youth from other racial and ethnic minority groups and make cross-group comparisons of decision outcomes following CPS investigations. Second, racial differences in outcomes have been found at various decision points in child welfare. Therefore, future research should also examine disparities at the worker level for different decision points and compare the magnitude of disparity across decision points. Third, the sample only included characteristics of workers and children in the state of Illinois. Results may be different for workers and children from other states with different racial demographics and child welfare policies on evaluating child maltreatment. Finally, the analysis was limited to information provided in the administrative database. Thus, future research should examine the role of attitudinal, behavioral, and community factors in child welfare decision-making. Given these limitations, results should be interpreted with caution.

Conclusion

According to findings of this study, black and white workers are more likely to have high levels of racial disparity in substantiation decisions if they have small proportions of black children in their caseloads and if they receive a report from a medical professional. However, workers are more likely to have low levels of racial disparity if they have large proportions of black children in their caseloads and possess a degree in a human-services related field. Because there are multiple factors to consider and some degree of subjectivity in making decisions about
an allegation, workers should be aware of how racial bias influence each assessment of risk. Differential assessments of risk can lead to racial disparities in the quality and number of services provided to families. As a result of inequities, some families may have unnecessary child welfare intervention, while others may not receive what they need to ensure child safety and well-being. Also, some children may receive more substantiated reports based on whether they are within a minority group within a caseload. Findings suggest workers should enhance their education by attending regular training to learn the needs of all families living in situations that place them at risk of child welfare intervention. They should also become aware of how biases can impact how they evaluate families of different backgrounds, especially if these families make up a small percentage of their caseloads.
REFERENCES


