

BOSTON COLLEGE  
School of Social Work

BEYOND THE 9 TO 5: EXPLORING THE INTERPLAY BETWEEN MATERNAL  
NONSTANDARD EMPLOYMENT, ACADEMIC INVOLVEMENT, AND SCHOOL  
SUSPENSION

A dissertation  
by

TY B. TUCKER

Dissertation Examination Committee

Dr. Shanta Pandey, Co-Chair  
Dr. Cal Halvorsen, Co-Chair  
Dr. Tyrone Parchment, Member  
Dr. Indrani Saran, Member  
Dr. Smitha Rao, Member, Ohio State University

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**Abstract**

Students in the United States missed more than 11 million school days in the academic year 2017-2018 due to out-of-school suspensions. Research has shown that suspension has adverse short- and long-term consequences, such as lower academic achievement and lower graduation rates. With school suspension affecting approximately one-third of students across their K-12 experience, policymakers, researchers, and professionals have outlined school suspension as a major problem. Maternal involvement has been identified as a significant factor in student achievement, motivation, and aiming toward higher education, but little is known of the influence it may have on reducing exclusionary discipline—particularly for mothers with nonstandard employment. Exclusionary discipline is discipline practices that isolates students from the classroom environment. Guided by disability critical race theory, role conflict theory, and ecological systems theory, this dissertation utilized the *Future of Families and Child Wellbeing* dataset to assess the relationship between maternal nonstandard employment and three response variables: mothers' (1) school-based and (2) home-based academic involvement; and

(3) children's school suspension rates. Children's special education status was tested as a potential moderator for all three response variables, and maternal academic involvement was tested as a potential mediator between maternal nonstandard employment and children's school suspension rates. There was a positive relationship between mothers working a sporadic schedule and their school-academic involvement, but not their home-academic involvement. There was a negative relationship between mothers working on the weekends and home-academic involvement, but not school-academic involvement. There was a negative relationship between mothers working on the weekends and youth school suspension, but the association was lost when covariates were included in the model. Despite the fact that Black mothers had a higher likelihood of academic involvement (both school based and home based) than White mothers, Black children also had a higher likelihood of school suspension than White children. Similarly, mothers with youth in special education had a higher likelihood of academic involvement (both school based and home based) than mothers with youth not in special education, however youth in special education also had a higher likelihood of school suspension than youth not in special education. Additional factors that were shown to decrease the odds of school suspension include youth engaging in no or less externalizing behavior, being a boy, higher income status and higher maternal education. These results show the need to improve anti-racism and anti-ableism initiatives to reduce the suspension gap through implicit bias training, increased community engagement efforts, and restorative justice practices.

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## CHAPTER 1. Introduction

**Prevalence of School Suspension**

More than 3 million students are suspended or expelled every year from school (U.S. Department of Education Office of Civil Rights, 2014, 2019). Suspension and expulsion exclude students from the classroom and substantially reduce instruction time (Shollenberger, 2015). According to the Office of Civil Rights, students missed 11 million school days between the academic year 2017 and 2018 due to out-of-school suspensions (U.S. Department of Education, 2021).

**Definition of key terms used in this dissertation**

***Disability.*** According to the Center for Disease Control and Prevention (CDC), a disability is defined as any impairment of the body or mind that make it more challenging to participate in activities and interact within society (2020, para.1). This definition is similar to how the Americans with Disabilities Act (ADA) and section 504 of the Rehabilitation Act define disability. Both policies describe disability as a physical or mental limitation to engage in activities, a record of such impairments, or being perceived by others as having such impairments (U.S. Department of Justice Civil Rights Division, para. 2; U.S. Department of Health and Human Services Office of Civil Rights, 2006, para. 3). Unlike section 504 of the Rehabilitation Act and ADA, the major law governing general education for individuals with disabilities is the Individuals with Disabilities Education Act (IDEA) which provides a much narrower definition of disability. IDEA defines a child with a disability as having an “intellectual disability, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance (referred to in this part as

“emotional disturbance”), an orthopedic impairment, autism, traumatic brain injury, any other health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related services” (IDEA, 2018, para.1).

Special education is instruction that is specially designed for children with disabilities at no cost to the parents (IDEA, 2017, para.1) and is governed under one or more of the policies mentioned above (Zirkel, 2020). To receive special education services, the student must have a qualifiable disability (Dimian et al., 2021); therefore, throughout this study, disability was defined as the qualifying disability to receive special education services unless specifically noted. Furthermore, the study used the phrases “students in special education” and “individuals/students with disabilities” interchangeably throughout the manuscript.

***Disproportionate and disparity.*** Languages such as disproportionality and disparity are threaded throughout this study in reference to outcomes based on race and/or special education status. Throughout literature, disproportionality (or disproportionate) refers to the ratio between the percentage of the target population (ex: racial or ethnic group, special education status) who experience specific treatment and/or outcomes (such as school discipline, maltreatment, incarceration) compared to the percentage of the target’s overall population (Fong et al., 2014; Hill, 2006). These ratio distinctions are used throughout research (e.g., Scott & McIntosh, 2022) to suggest underrepresentation, proportional representation, or overrepresentation of a target population experiencing a specific phenomenon (Fong et al., 2014). Though some research may use disproportionality and disparity interchangeably (Boyd, 2014), this study and other scholars (e.g., LeBoeuf et al., 2023) define the terms separately. Throughout this study, disparity refers to “unequal treatment or outcomes for different groups in the same circumstance or at the same decision point” (Fong et al., 2014, pg. 1); therefore, disparity refers to the lack of equality.

### **Disparities in Suspension Risk**

On average, students with disabilities are disciplined at a higher rate than students who are not in special education (Balfanz & Fox, 2014; Sullivan et al., 2014) and accounted for more than 20% of all suspensions despite being only 13.2% of total enrollment in 2017-2018 (U.S. Department of Education Office of Civil Rights, 2021). They are twice as likely to be suspended or expelled from school than their peers without disabilities (U.S. Department of Education, 2018), even when controlling for other factors such as race and gender (Anyon et al., 2014). Specific disorders like emotional disturbance in special education increase the probability of suspension and expulsion (Anyon et al., 2014). Sullivan and colleagues (2014) conducted a multilevel analysis that indicated the need to disaggregate samples of students with disabilities to understand discipline disparities better. The sample was derived from a diverse urban population in the Midwest in school year 2009-2010. The authors found students with emotional disturbances and other health impairments had a higher prevalence of suspension compared to students with other types of disabilities. Not only did students with emotional disorders have an overall suspension rate of 47%, but this group was at high risk of experiencing multiple suspensions (Sullivan et al., 2014). Almost one-third of the students with emotional disturbances experienced multiple suspensions (Sullivan et al., 2014).

There are also persistent racial disparities in suspension and expulsion (Fabelo et al., 2011). Students of color with disabilities receive disproportionately more exclusionary discipline practices than White students with disabilities (Green et al., 2019; U.S. Department of Education, 2018). Black students may be more likely to experience escalating school discipline than their White counterparts (Jacobsen et al., 2018; Novak, 2021; Yang et al., 2018). A study conducted by Losen et al. (2015) showed Black males in secondary special education had the highest risk of

suspension (33.8%), followed by Latino males in secondary special education (23.2%), then Black females in secondary special education (22.5%). In comparison to White students with disabilities, Black students with disabilities are nearly three times more likely to be suspended or expelled for problem behavior (Skiba et al., 2013). In academic year 2017-2018, Black students served under the IDEA experienced 6.2% of in-school suspensions and 8.8% of out-of-school suspensions despite accounting for only 2.3% of total student enrollment (U.S. Department of Education, 2021). Research has estimated that Black students with disabilities have lost approximately 77 more days of instructional learning than White students with disabilities (Losen, 2018).

### **Short and Long-Term Consequences of School Suspension**

Research has detailed the short-term consequences of classroom exclusion, such as higher risk of academic failure (Morris & Perry, 2016; Noltemeyer et al., 2015), of dropping out of school (Lee, Cornell, Gregory, & Fan, 2011), of engaging in antisocial behavior (Novak & Krohn, 2021), of juvenile intervention (Skiba et al., 2014), and of substance misuse (Hemphill et al., 2017). Other studies have found that many of these consequences persist into adulthood. Those who experienced school suspension have an increased probability of incarceration (Hemez et al., 2020; Rosenbaum, 2020) and homelessness (Heerde et al., 2020) and a decreased likelihood of obtaining a Bachelor's degree (Rosenbaum, 2020). Due to these detrimental short- and long-term consequences, it is crucial to explore populations with a higher likelihood of suspension and identify solutions to reducing suspensions.

## Special Education and Exclusionary Discipline

*Brown v The Board of Education* of 1954 was the landmark Supreme Court case that ended state-mandated racial segregation in public schools. Linda Brown's parents and several other Black parents collaborated with the National Association for the Advancement of Colored People (NAACP) to combat educational and social inequities that their children experienced due to race (Sheehan & Shiveley, 2004). The Supreme Court's decision overturned *Plessy v Ferguson*'s "separate but equal" clause. Later, it would serve as the impetus to upholding the civil rights of people of color and individuals with disabilities (Blanchett et al., 2005). During the civil rights movement, the *Bureau of Education for the Handicapped* was established in the mid-1960s, and the *Education for all Handicapped Children Act (EHA)* was passed in 1975 (Blanchett et al., 2009). As federal disability programs emerged in schools, some states resisted complying with *Brown v Board of Education* and, allegations arose that special education classes were being used to maintain racial segregation (Prasse & Reschly, 1986). In 1975, the first filed suit *Larry P. et al. v. Wilson Riles et al.* (1979), accused the San Francisco school district of discriminating against five African American children who had been placed in special education classes. The ruling attempted to eliminate the disproportionate placement of African American students in special education classes by banning IQ tests for African Americans strictly for the purpose of special education (Prasse & Reschly, 1986).

Previous scholars (i.e., Glickstein, 1980; Hanson, 2005) have acknowledged how school disciplinary rates have increased following the passing of *Brown v. the Board of Education* (1954). Losen and Skiba (2010) found student suspensions nearly doubled between 1973 to 2006 and when examined by race, Black students experienced stark disparities. In 1973, 6% of Black students were suspended, compared to 15% in 2006. The researchers noted a reason for the

increase was, in part, the zero-tolerance school discipline policies. Other researchers have noted that policies such as the *Gun Free School Act of 1994* (Mongan & Walker, 2012; Walton, 1995) and zero-tolerance policies (Mongan & Walker, 2012) were initially presented as safety precautions. Though the No Child Left Behind Act passed zero-tolerance policies, they came into conception due to policies such as the *Gun-Free Schools Act of 1994* (Cerrone, 1994). While zero-tolerance policies addressed extreme offenses (i.e., bringing a weapon), minor infractions (i.e., profanity, dress code) also resulted in suspension (Kang-Brown et al., 2013).

As communities, scholars, stakeholders, and policymakers see the growing need for policy reform (Williams III et al., 2020), active measures are being taken to reduce suspension and expulsion, especially for students that are protected under IDEA. Congress acknowledged racial and ethnic disproportionate representation in special education and exclusionary discipline as major problems in the 2004 reauthorization of IDEA (Albrecht et al., 2012). The 2004 IDEA reauthorization required states to monitor districts for significant discrepancies in racial and ethnic representation as well as in exclusionary discipline among students with disabilities [20 U.S.C. §1412(a)(22)]. Each state receives funds under the IDEA Part B, mandating states to provide educational services and programs to school-aged children with disabilities (Losen, 2018). Therefore, when a local education agency has a significant racial or ethnic disproportionality in exclusionary discipline practices for students with disabilities, the agency is mandated to apply a portion of their Part B funds on evidence-based early intervention services [20 U.S.C. §1412(a)(22)]. In the monitoring year 2015-2016, 236 districts (of the 18,328 total districts) were required to utilize a portion of their Part B funds due to racial disparities in use of exclusionary discipline (Losen, 2018).

In response to the reauthorization, schools have implemented several strategies to reduce suspension, such as training personnel, including school police, teachers, and principals (Williams III et al., 2020; White & McKenna, 2020) as well as increasing school resource officers (McCurdy et al., 2019). Some of these attempts consist of improving cultural competency (Ladson-Billings, 2014), reducing implicit bias (Kennedy & Soutullo, 2018; Warren, 2018), and building on student relationships (i.e., trust; Kitzmiller, 2013; Way, 2011) through training and proactive strategies (Green et al., 2018). Researchers have evaluated alternatives to exclusionary disciplines, such as positive behavior support interventions (PBIS), that have been shown to reduce suspension (Chin et al., 2012). McIntosh et al. (2021) conducted a quasi-experimental study to explore the effects of an equity intervention, a school-wide PBIS, on school discipline. The findings showed that after one year of professional development, schools receiving the intervention decreased the use of exclusionary discipline and improved ratings of school climate. Despite the benefits of the PBIS framework and proactive strategies for decreasing exclusionary discipline, several studies have noted challenges towards implementation (e.g., staff personnel buy-in) within schools (Martin, 2013; McDaniel et al., 2017; McDaniel et al., 2018).

### **Research Gap**

The relationship between parent academic involvement and suspensions among children in special education is an understudied area. Research has shown the significance of parent involvement in learning and promoting academic achievement (Cheung & Pomerantz, 2012; Froiland & Davison, 2014), but little is known regarding the impact of parent involvement on child experiences of school discipline. Federal education law is also vague in its definition of parental involvement. The *No Child Left Behind Act* and its successor, *Every Student Succeeds*

*Act* (Hodge & Welch, 2016), use the same broad definition of parent involvement derived from 20 USCS § 7801 (32): “The participation of parents in regular, two-way, and meaningful communication involving student academic learning and other school activities” (No Child Left Behind, 2001, page number not available). Though research has explicit conceptualizations of parent involvement, the different types of parent involvement (e.g., home-based and school-based) are often debated; it is not clear which type of involvement is most influential for the child (Lechuga-Pena et al., 2019). Traditionally, parental involvement has included more school-based activities such as parent volunteering and attending school events (Epstein, 1987). More recently scholars have noted that the focus on school-based involvement centers able-bodied White normative parent standards on communities that have been marginalized (Reynolds, 2015; Wilson, 2019). Marchand et al., 2019 problematizes how school-based activities are esteemed as families who have been marginalized, specifically Black families have to navigate a power-imbalanced education system. The authors suggested that home-based academic involvement (e.g., reading activities) is often needed to counteract discrimination (Marchand et al., 2019).

Without factoring in the nuances of family dynamics, parent involvement traditionally includes parents’ participation in school-based activities (Daniel et al., 2016). A study by Oswald and colleagues (2018) illustrates how a narrow definition may produce skewed findings when measuring parental involvement with children in special education. Oswald et al. (2018) found that parents had a lower probability of involvement if their child had a disability compared to parents whose child did not have a disability. However, the authors offered explanations of why this may be occurring. The first possibility was due to other nonacademic care needs that may require more parent engagement, such as health care activities. Furthermore, the authors, using data from the *2012 National Household Education Surveys Program*, noted that the activities

that were used to define parent involvement, such as “Attended a school or class events, such as a play, dance, sports event, or science fair” may be more accessible to parents whose children do not have a disability. Thus far, there is limited research on the unintended bias in survey items measuring parent involvement for families with students with disabilities. Oswald et al. (2018) acknowledged such challenges might require alternate definitions to explain parent involvement. As parent academic involvement has been shown to be critical to students’ academic success, further research is needed to explore how parent involvement might also influence students’ disciplinary outcomes.

There has been extensive research on employment's role in parental academic involvement (Genadek & 2017; Kim et al., 2022; White & Maniam, 2020). Throughout the literature, findings have shown a relationship between parents' being employed and academic involvement, specifically for mothers (e.g., Holmes et al., 2018). However, as we continue to move toward a 24/7 economy (Presser, 2014) findings show more variability with parent academic involvement as it pertains to exploring the characteristics of employment. Utilizing Structural Equation Modeling, Kim et al. (2022) found that employed mothers had a lower level of academic involvement (home-based and school-based) when being compared to unemployed mothers. The findings went on to show that mothers who worked weekends had lower home-based and school-based academic involvement than mothers who worked Monday-Friday only, while mothers working a standard schedule (approximately 8-5 Monday-Friday) had lower levels of school-based involvement than those working nonstandard hours (Kim et al., 2022). This is evidence that work schedule variability may play a crucial role in parent involvement. In a qualitative study that explored barriers to parent involvement, parents identified work schedule conflicts as a barrier to school involvement (Baker et al.,2016). The participants within the study

(several school staff) acknowledged the role that employment characteristics may have on parent involvement by reporting parents may work outside of the traditional 8-5p.m. work schedule (Baker et al., 2016).

An array of terms have been used to describe working outside of the traditional hours, but this dissertation uses the term “nonstandard employment” similar to other researchers (e.g., Kim et al., 2016). Arlinghaus et al. (2019) defined nonstandard employment as working outside of the standard Monday to Friday day schedule (approximately 8 a.m. to 5 p.m.) as well as working evenings, nights, weekends, and unpredictable hours. The demand for “24/7” services has not only sparked a shift in the U.S. economy but has led to an increased number of workers working in nonstandard conditions (Presser and Ward, 2011). Nonstandard work conditions are sometimes used interchangeably with precarious employment (ex: Rönnblad et al., 2019) since nonstandard work conditions have less job security, less predictable hours, and less likelihood to have health insurance and employment benefits. (Government Accountability Office, 2000; Rönnblad et al., 2019). Albelda et al. (2020) explored the interplay between gender and precarious work and found higher economic insecurity among women (14.7% points higher when compared to men), Black workers (3.1% points higher when compared to White workers), and Hispanic workers (3.6% points higher when compared to White workers). The researchers went on to note the wage gaps may play a key role in relegating women, Black, and Hispanic workers to insecure employment. These indicate that employment characteristics, such as work schedule, may be associated with parents' academic involvement. Therefore, further exploration of employment characteristics may be beneficial to understanding parent academic involvement in relation to youth school suspension.

Post-pandemic employment challenges, such as job and income loss (Peters et al., 2022) and insecure employment (King et al., 2023), have intensified for women (Fisher & Ryan, 2021), especially single-mothers (Radey et al., 2021). While the pandemic heightened these challenges, employment challenges for women have always existed and likely play a role in understanding school suspension. As a result, this study focuses on the experience of maternal employment characteristics as it relates to child suspension. Furthermore, throughout the literature, mothers have been acknowledged as taking on the majority of caretaking tasks for children (e.g., Petts et al., 2021). Therefore, this dissertation study aims to dive deeper into contextual factors influencing increased suspension within special education. Prior studies have offered solutions that ranged from improving student-teacher interactions (Gregory et al., 2014) to offering restorative justice as an alternative to suspensions (Anyon et al., 2014), but this study explores solutions that center the parents of students in special education, specifically mothers. One objective is to expand the literature by examining the association between maternal nonstandard employment characteristics and school suspension. Furthermore, the study assessed whether this relationship is moderated by child's special education status and mediated by maternal academic involvement.

### **Theoretical Frameworks Guiding this Dissertation**

To guide the aims of this dissertation, the researcher utilized three social science theories: role conflict theory, ecological systems theory, and disability critical race theory.

#### **Role Conflict Theory**

To guide this study, Ch. 2 and 3 utilized role conflict theory. Derived from Kahn et al. (1964), the definition of role conflict theory is holding two or more roles concurrently such that complying with one makes it challenging to comply with the other role (as cited in Greenhaus &

Beutell, 1985). Under this theory, several types of role conflicts were identified, including work-family conflict. Work-family conflict theorizes that when there is pressure in either the work or family role, the roles become incompatible, prompting conflicts in the form of time, strain, and/or behaviors. Holmes et al. (2018) found a negative correlation between work-family conflict and maternal involvement in their child's school, regardless of maternal work schedule and status. Similarly, Youn et al. (2012) found an association between maternal work status (i.e., not employed, part-time work, or full-time work) and maternal involvement with their child's education. Specifically, the authors found when the mother works a full-time schedule, there is a decline in their academic involvement in comparison to mothers who are unemployed or work part-time schedules. These findings suggest mothers with full-time employment experience greater time constraints compared to those with part-time employment. This dissertation study utilized role conflict theory to better understand how the context of maternal employment is associated with the mother's academic involvement.

### **Ecological Systems Theory**

To guide this study, Ch. 2 and 3 utilized ecological systems theory. Developed in the 1970s by Urie Bronfenbrenner (Bronfenbrenner, 1993), this theory emphasizes the importance of multiple contexts or interrelated settings in which development occurs (Bronfenbrenner, 1993) by observing individuals' behavior and development in the context of their lives, environments, families, and surroundings (Darling, 2007). These interrelated settings (i.e., the environmental systems) consist of five subsystems: 1) the microsystem, 2) the mesosystem, 3) the exosystem, 4) the chrono-system, and 5) the macrosystem (Darling, 2007). Each of the subsystems may impact an individual's development and behaviors within the contexts of their environment (Bronfenbrenner, 1993). This theory was utilized to better understand how contextual factors in

the exosystem, chronosystem (i.e., life transitions), and macrosystem (i.e., policies) influence parent's behavior (academic involvement; mesosystem) and how this involvement or lack thereof influences the student's risk of suspension (microsystem).

### **Disability Critical Race Theory**

An important theory for understanding the association between parental academic involvement and school suspension or expulsion is disability critical race theory, first proposed by Subini Ancy Annamma, David Connor & Beth Ferri (Annamma et al., 2013). The authors extended the work of critical race theory and disability studies by acknowledging race and disability as interconnected social paradigms rooted in historical and systematic oppression and inequity within the education system (Annamma et al., 2013). The theory focuses on how perceptions of race can influence how one's ability to think, learn, and behave is conceptualized, assessed, and labeled (Annamma et al., 2020). The authors note how such evaluations influence discipline and consequences for the individual. This theory was utilized in Ch.4 to guide this dissertation study, as Black students in special education have been suspended at a disproportionate rate (Nishioka et al., 2019). By implementing this framework, we acknowledge that the perception of race (i.e., being a Black student) can influence students' ability, or lack thereof, to behave by conforming to accepted norms, resulting in school suspension or expulsion. Furthermore, this dissertation utilized Disability Critical Race Theory to draw parallels to maternal academic involvement and suspension outcomes.

### **Research Questions**

Informed by the theories above, this dissertation aims to expand the literature by examining the association between maternal employment context and their child's risk of school suspension. More specifically, this study investigates the role of maternal nonstandard

employment and the special education status of their children on three key outcomes, each of which constituted an individual paper within the three-paper dissertation framework:

1. School-based academic involvement
  - a. What is the association between maternal employment characteristics (nonstandard employment) and mothers' school-based academic involvement?
  - b. Does having a child with special education status moderate this relationship?
2. Home-based academic involvement
  - a. What is the association between maternal employment characteristics (nonstandard employment) and mothers' home-based academic involvement?
  - b. Does having a child with special education status moderate this relationship?
3. School suspension
  - a. What is the association between maternal employment characteristics (nonstandard employment) and school suspension?
  - b. Does maternal academic involvement mediate this relationship?
  - c. Does having a child with special education status moderate this relationship?

## **Methods**

### **Data**

To explore the research questions, this study used the *Future of Families and Child Wellbeing* dataset (FFCWS), formerly known as the *Fragile Families and Child Wellbeing* dataset, a longitudinal panel survey. This dataset was selected by oversampling Black, Hispanic, and low-income families (as noted in Reiner et al., 2022), which is unique for exploring relationships between nonstandard employment, maternal academic involvement, and youth suspension. The FFCWS is a longitudinal birth cohort study that followed 4,898 children and

their parents born between 1998 and 2000 in 20 large cities. The baseline (wave 1) interview occurred at the hospital when the child was born, then five follow-up interviews (waves 2-6) occurred when the child was 1, 3, 5, 9, and 15 years old. The first five waves interviewed the mothers and the fathers; waves 3 and 4 (when the children were 5 and 9) also included surveys of the teacher, and the last wave interviewed the child (15 years old) and their primary caregiver. This study utilized data from wave 6, when the focal child was 15 years old respectively as it was the only wave which included sufficient measures of school-based academic involvement. The eligibility criteria for wave 6 (year 15) was 4,663 (which excluded youth that were deceased or legally adopted out). In wave 6, the researchers noted if the youth lived with both biological parents then the mother was identified as the primary caregiver which resulted in mothers consisting of 3,146 (88%) participants. The final sample of this study was 3,146.

### **Data Analysis Strategies**

To answer the first question in paper 1, as shown in Figure 1.1, the study utilized a multiple regression with maternal school-based academic involvement as a linear dependent variable. This study utilized four binary independent variables to operationalize nonstandard employment (i.e., working weekends, working evenings, working overnights, and working sporadically.) To answer the second question, it included an interaction term between the four independent variables and a binary indicator of children's special education status. This paper controlled for maternal demographics, household, and neighborhood characteristics.

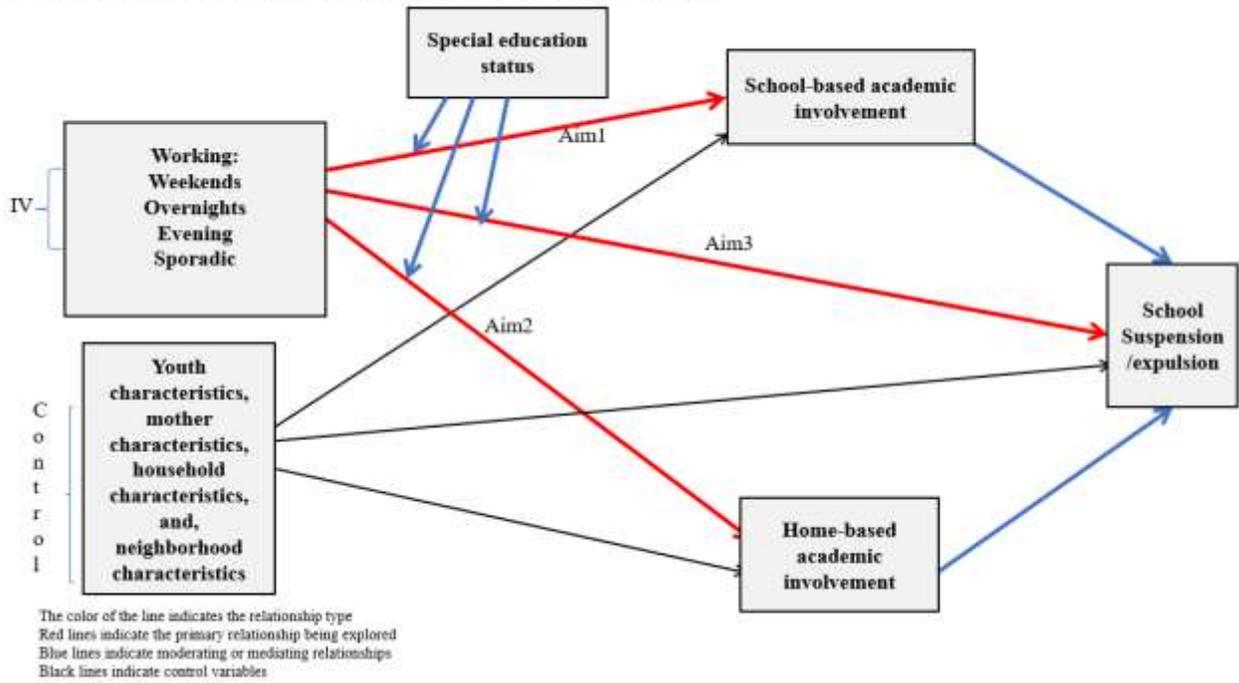
To answer the first question in paper 2, the study utilized a multiple regression with maternal home-based academic involvement as the dependent variable. Similar to paper 1, paper 2 utilized the same four binary independent variables that operationalized nonstandard employment. To answer the second question in paper 2, it included an interaction term between

the four independent variables and a binary indicator of children's special education status. This paper controlled for the same covariates as paper 1 (maternal demographics, household, and neighborhood characteristics).

To answer the first question in paper 3, the study utilized a path analysis with school suspension or expulsion as the binary dependent variable. Similar to papers 1 and 2, paper 3 utilized the same four independent variables that measure the maternal nonstandard employment. To answer the second question, it examined if the maternal academic involvement variables (both school-based and home-based involvement) mediated the relationship between maternal nonstandard employment and school suspension or expulsion. To answer the third question, it included an interaction term between the four independent variables and a binary indicator of children's special education status (see Figure 1.1).

Figure 1.1

**Mothers' employment context, academic involvement, and school suspension**



**Research Ethics (IRB)**

This study has been approved by the Boston College Institutional Review Board.

## CHAPTER 2

**Paper 1: The association between maternal employment context, school-based academic involvement, and special education****Literature Review**

Education policies (e.g., *Every Student Succeeds Act*) continue to show their commitment to engaging parents (Darling-Hammond et al., 2016). This commitment has been shown through grant funding towards initiatives for parent-involved activities (Skinner, 2020) as well as training staff on engaging parents and community organizations that are successful in engaging parents (Goss, 2019). Though these policies are not specifically geared toward families who have a student in special education, IDEA (Individuals with Disabilities Education Act, 2004) details the significance of cultivating and maintaining a relationship with parents through open communication. To meet educational policy requirements, several factors must be explored in addressing barriers to parent involvement and, uniquely so, for those in special education (Goss, 2019).

**Defining Parent Involvement**

As detailed in Oswald (2018), utilizing measures to define parents' academic involvement poses challenges, especially when parents' academic involvement is primarily defined in a traditional sense (i.e., school-based academic involvement; Marchand et al. 2019). Other scholars have noted parental involvement as parents 'investing' in their child's education (e.g., Knight et al., 2016), involvement in the school's activities and events (e.g., Park et al., 2017), and parents having discussions with school personnel (Ross, 2016). Therefore, for this study, parent academic involvement was divided into two aspects: school-based academic

involvement and home-based academic involvement, similar to prior studies (e.g., Wong et al., 2018). This paper focuses on maternal school-based academic involvement.

### **Maternal Academic Involvement and Employment**

Scholars have shown the association between maternal academic involvement and employment context (e.g., Holmes et al., 2018). Prior studies (e.g., Youn et al., 2012) suggest there is an association between maternal work status (i.e., not employed, part-time, and full-time) and maternal involvement with their child's education, but this association depends on the type of academic involvement (i.e., home-based and school-based). Holmes et al. (2018) found mothers working a full-time day schedule reduced their involvement in their child's school in comparison to other work schedules such as part-time and a varying full-time schedule (e.g., including evenings and weekends).

Within research, there are varying terms to describe employment requiring working evenings and weekends, but this manuscript utilized the term "nonstandard employment" similar to other researchers (e.g., Kim et al., 2016). Arlinghaus et al., (2019) defined nonstandard employment as working outside of the standard Monday through Friday day schedule (approximately 8 a.m. to 5 p.m.) as well as working evenings, nights, weekends, and unpredictable hours. Per the federal government, nonstandard work conditions (ex: part-time) were included in the definition of contingent work (Government Accountability Office, 2000) and the phrase is sometimes used interchangeably with precarious employment (ex: Rönnblad et al., 2019) since nonstandard work conditions have less job security, less predictable hours, and are less likely to have health insurance, or employment benefits, (Government Accountability Office, 2000; Rönnblad et al., 2019).

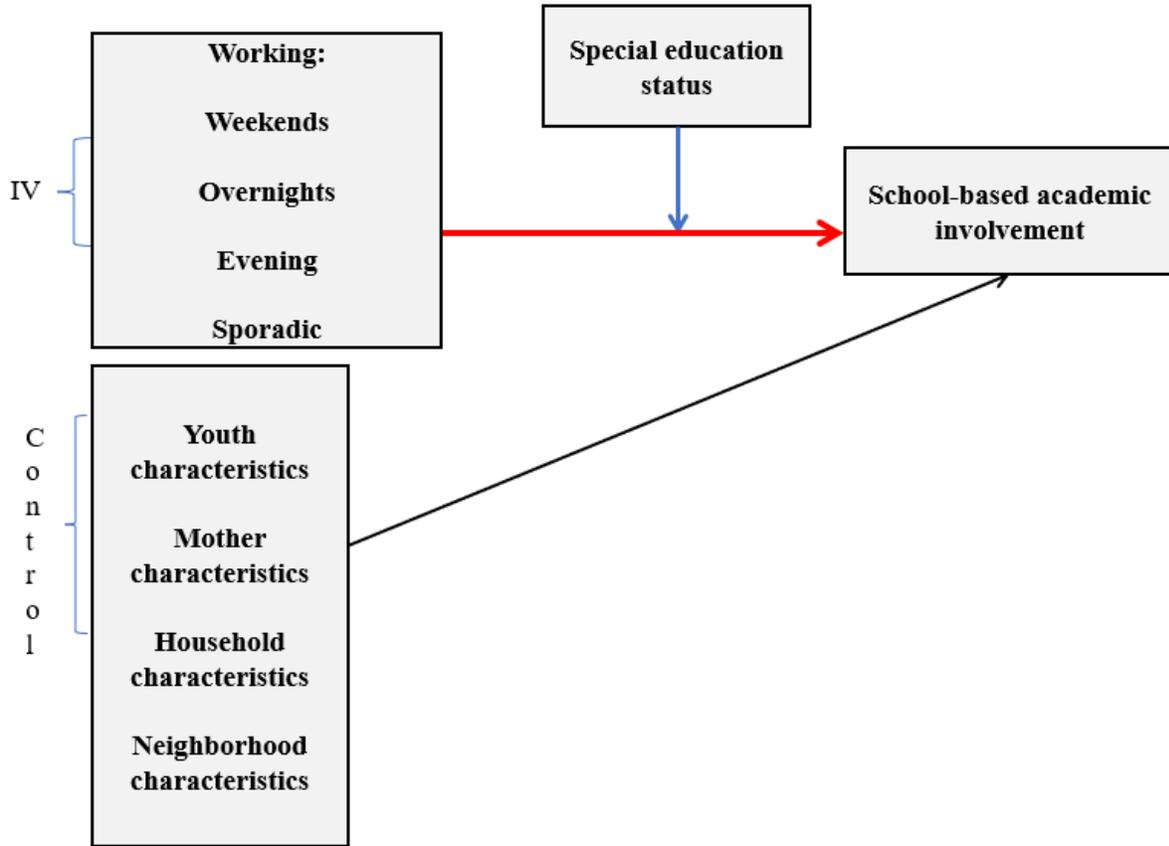
When exploring the interplay between gender and precarious work, Albelda et al. (2020) found higher economic insecurity among women (14.7% points higher when compared to men), Black workers (3.1% points higher when compared to White workers), and Hispanic workers (3.6% points higher when compared to White workers). These findings suggest that wage gaps may play a key role in relegating women, Black, and Hispanic workers to insecure employment (Albelda et al., 2020). Such employment insecurity may also increase the likelihood of multiple job holding (Carney et al., 2018). Little is known how specific employment characteristics (e.g., multiple job holding, nonstandard work schedule) may pose a barrier to parent academic involvement, especially for those with a child in special education.

These barriers do not occur in isolation, as structural barriers may also prevent parent academic involvement. Phillips (2008) reported that some structural challenges in providing special education services are due to inadequate funding and additional documentation requirements. School administrations may be spending more time and energy on reducing the barriers to providing special education services instead of engaging and fostering meaningful relationships with parents (Bacon & Causton-Theoharis, 2013). This lack of communication from the school can discourage parental involvement (Jefferson, 2015). These barriers appear to be unintentional; however, studies have emerged in which parents perceive administrative actions as being intentional and dismissive (Beard & Brown, 2008). Goss (2019) conducted a thematic analysis to explore the structural barriers to involving parents within the school system. The author's findings produced themes of parents feeling unwanted, being kept in the dark by the school administration, feeling bullied, and experiencing a fear-based culture. Furthermore, scholars have noted barriers to parent involvement as a result of being from disadvantaged backgrounds (e.g., being a single-parent; Li & Fischer, 2017) or due to neighborhood

characteristics (Bhargava & Witherspoon, 2015), and factors that limit time (e.g., having small children and work schedule; Murray et al., 2014; Ringenberg & McElwee, 2009). Liang et al., (2020) conducted a qualitative study in academic year 2016-2017 to better understand how families defined parent involvement. Of the 152 participants that were invited to partake in the study 60 participants (59 mothers and 1 father) participated in the study and one of the barriers for the other invited parents was work schedule conflict. Within the study, thematic analysis showed that parents reported work schedules as potential barriers to engage in academic involvement. Some participants reported only being able to partake in school-based activities such as parent-teacher conferences by participating in the “late evening” conferences to be in attendance (pg.80). Other participants suggested the school hold more weekend school-based activities to increase parents’ involvement due to work schedule conflict. Similarly, not having flexibility in work schedules has been suggested as a barrier to parents’ academic involvement (Barnett et al., 2020). Despite research (e.g., Barnett et al., 2020) identifying parent work schedules association to school-based involvement, little is known how specific nonstandard characteristics, such as mothers working weekends, working evenings, working overnights, and working sporadic schedules is associated with school-based involvement. In addition, if special education moderates this relationship. Figure 2.1 shows the model that were tested using Wave 6.

Figure 2.1

**Mothers' employment context and academic involvement at school**



The color of the line indicates the relationship type  
 Red lines indicate the primary relationship being explored  
 Blue lines indicate moderating or mediating relationships  
 Black lines indicate control variables

**Research Questions and Hypotheses**

As shown in Figure 2.1, this study proposes two research questions and related hypotheses in this paper:

Q1. *What is the association between maternal employment characteristics and school-based academic involvement?*

- H1a. Mothers who work weekends are more likely to engage in school-based involvement than those who do not work weekends.
- H1b. Mothers who work evenings are less likely to engage in school-based involvement than those who do not work evenings.

- H1c. Mothers who work overnight are less likely to engage in school-based involvement than mothers who do not work overnight.
  - H1d. Mothers who work sporadic schedules are more likely to engage in school-based involvement than mothers who do not work sporadic schedules.
- Q2. *Does having a child with special education status moderate this relationship?*

H2. The relationship between mothers' nonstandard employment and school-based academic involvement will depend on child's special education status.

### **Theoretical Frameworks Guiding this Paper**

This study is framed by two theories, role conflict theory and ecological systems theory.

#### **Role Conflict Theory**

Role conflict theory posits while holding two or more roles simultaneously, complying with both will be difficult (derived from Kahn et al., 1964 as cited in Greenhaus & Beutell, 1985). This theory utilized several types of role conflicts, including work-family conflict, that describes how incompatible work and family roles compete for time, strain, and/ or behaviors. The role conflict theory guided our understanding of how mothers' employment characteristics, such as work schedule, compete with academic involvement within the school setting. Furthermore, mothers that have children with disabilities may be at higher risk of role strain due to their child needing additional services such as physical therapy, occupational therapy, speech and language therapy, behavioral therapy and/or special education services (Mishra & Siddharth, 2018). These interventions may require additional time for these mothers, which may further strain their role between work and family expectations.

#### **Ecological Systems Theory**

Ecological Systems Theory emphasizes the importance of multiple contexts or interrelated settings in which development occurs (Bronfenbrenner, 1993) by observing

individuals' behavior and development in the context of their lives, environments, families, and surroundings (Darling, 2007). Therefore, this theory was utilized to better understand how employment characteristics, such as maternal nonstandard employment, influence the mothers' school involvement.

The proposed research questions and hypotheses investigate the association between maternal nonstandard employment characteristics and school-based academic involvement, as well as the moderating effect of having a child with special education status. Drawing from Role Conflict Theory, hypotheses H1a-d suggest that different maternal work schedules may impact school-based involvement due to varying levels of competing time, energy, and resources. Furthermore, the theory posits that mothers of children with special needs may experience heightened role conflict, exacerbating the impact of nonstandard employment. Ecological Systems Theory compliments role conflict theory by highlighting the various systems that influence mothers' involvement within the school, including work schedule as part of the microsystem and societal values shaping employment norms in the macrosystem. The presence of a child with special education needs adds complexity, with the mesosystem and exosystem potentially influencing the interaction between maternal employment characteristics and school-based involvement.

## **Methods**

### **Dataset and Sampling Strategy**

To explore the proposed hypotheses, this study used the FFCWS dataset. This is publicly available secondary data. As indicated in Chapter 1, this survey sampled 4,898 children and their mothers, fathers, or primary caregivers were interviewed when the focal child was born and when the child reached 1, 3, 5, 9, and 15 years of age (Reichman et al., 2001). When the focal

child is 9 and 15, they also interviewed the focal child. The survey has information on household and neighborhood characteristics and the mother's school-based academic involvement. This study utilized Wave 6 data when the focal child was 15 years of age which dropped the sample to 4,663 due to the exclusion of youth that were deceased or legally adopted out. This study inclusion criteria were being the mother and identified as the primary caregiver which was 88% of the wave (3,146). The final sample size was 3,146.

Appendix A (on pg. 137) lists all variables used in this dissertation study and their descriptions. Using the list of variables from Appendix A, a more concise operational definition was created and applied in this paper (also see Table 2.1 below.)

### ***Dependent Variable***

*School-based academic involvement:* A summed measure of a mother's involvement in school-based activities at wave 6 was created using self-reported data on a mother's absence (coded as 0), one time attendance (coded as 1) or, attendance more than once (coded as 2) at five different school-based activities (open-house/back to school night, parent-teacher conference, parent-teacher organization, attended school events, and volunteered at school or served on the committee.) They were then summed to create a continuous variable ranging from 0 to 10, with 0 indicating that the mother did not participate in any of the child's school-based academics during the academic year, and 10 indicating that the mother reported participating in all activities more than once.

### ***Independent Variable***

*Maternal nonstandard employment:* Derived from Wave 6, four binary variables were created based on the mother's work schedule: regularly works weekends, evenings (6pm—

11pm), overnights (11pm—7am) and, different times each week (“sporadic”). These questions were only asked of participants who had worked since the last survey.

### ***Moderating Variable***

*Child special education status:* A dummy variable was created at Wave 6: the child is in special education, coded as 1, or the child is not in special education, coded as 0.

### ***Control Variables***

In addition, the following variables were included as controls: mother’s employment (engaging in multiple job holding and employment status), mother characteristics (race, age, education, income, health and, depression,), youth characteristics (gender, health, internalizing behavior(s), and externalizing behaviors), household characteristics (number of children in the home and mother’s relationship status) and neighborhood cohesion.

**Table 2.1: List of control variables**

Mother’s work in last week	A binary variable was created based on the mother’s response to “Did any regular work for pay in last week?”
Mother’s multiple job holding	A dummy variable was created: single job holding, and multiple job holding. Multiple job holding was operationalized as working more than one regular job at the same time within the past 12 months. Single job holding was operationalized as working one regular job within the past 12 months.
Mother’s race	Categorical (White=1, Black=2, Hispanic=3, and other race/ethnicity=4), from Wave 1
Mother’s age	Continuous (range: 30 to 63)
Mother’s education	Categorical (less than high school=1, high school or equivalent=2, some college=3, Bachelor’s degree or higher=4)
Mother’s income	Continuous (range: \$0 to \$999,999), linearly transformed by dividing income by 10,000 (transformed range: 0 to 99.9, such that 1 = \$10,000)
Mother’s health	A serious health issue that limits the work the mother can do; binary (1=yes, 0=no)
Mother’s depression	A binary variable (1=depressed, 0=not depressed) derived from the Composite International Diagnostic Interview - Short Form (CIDI-SF). The CIDI-SF takes a portion of the full CIDI questions and generates the

probability that the respondent would be a positively diagnosed respondent if given the full CIDI interview (Bendheim-Thoman Center for Research on Child Wellbeing, Columbia Population Research Center, 2018). Then the criteria for the liberal depression criteria labeled as "cp6md\_case\_lib" was constructed.

In wave 6, dichotomous variables were employed to determine if mother's self-report satisfied ("yes") or did not satisfy ("no") the criteria for the liberal depression criteria.

Youth's gender	Binary (boy=0, girl=1); from Wave 1
Youth's health	Youth's health derived from 5-level answer options that were reverse-coded (1=poor to 5=excellent). Next a binary variable was created 3/5 was coded as "good" and 1/2 was coded as "not so good."
Youth's Internalized youth behaviors	Youth's internalizing behaviors derived from mothers' reports. Summative score from five items (e.g., "youth feels too guilty") that each have a three-level response option (0= not true, 1=sometimes true, and 2=often true); final variable ranges from 0 to 10, where 10 indicates more negative internalized youth behaviors
Youth's Externalized youth behaviors	Youth's externalizing behaviors derived from mothers' reports. Summative scores from seven items (e.g., "youth threatens people") that each have a three-level response option (0= not true, 1=sometimes true, and 2=often true); final variable ranges from 0 to 14, where 14 indicates more negative externalized youth behaviors.
Relationship Status	Mother's relationship status was mother's binary response to the following prompts of her relationship status: biological primary caregiver is married to biological parent, biological primary caregiver is married to new partner, biological primary caregiver is cohabitating with biological parent (unmarried), biological primary caregiver is cohabitating with new partner (unmarried). A binary variable score was constructed consisting of four binary variables (1 = yes, 0 = no) that indicate the mother's relationship status; married/cohabitating=yes and unmarried/not cohabitating was coded as "no."
Number of children in the home	Continuous (range: 1 to 16)
Neighborhood Cohesion	Summative scores from nine items of neighborhood cohesion (e.g., how likely will neighbors get involved with kids doing graffiti or fighting), ranging from 0 to 9, where 9 indicates more neighborhood cohesion

*Note: All data were derived from Wave 6 unless otherwise noted.*

### **Data Analysis Strategies and Diagnostic Tests**

This study used descriptive statistics to summarize all variables used in the 6<sup>th</sup> Wave. The study encompassed both weighted descriptive statistics to examine the prevalence of school-based academic involvement and mothers' nonstandard employment. The population weight was provided by the Future of Families dataset.

To answer the first question, the study utilized used multiple linear regression analysis to evaluate whether the four maternal nonstandard employment variables were significantly related to the outcome variable, maternal school-based involvement (Model 1). Next, Model 2 built upon Model 1 by adding the control variables which included maternal, youth, household, and neighborhood characteristics. To answer the second question, Model 3a built upon Model 2 by including four multiplicative terms between maternal nonstandard employment and their child's special education status.

This study implemented multiple diagnostic tests. To test for multicollinearity among the independent variables, variance inflation factors (VIF) was generated for the model. The observed mean VIF for mothers working weekends were 1.36, evenings were 1.34, overnights were 1.15, and sporadic schedules were 1.32. There was a high correlation between neighborhood cohesion (VIF mean=9.11) and maternal stress (VIF mean=9.39), therefore, maternal stress was removed from the model. Furthermore, there was a high correlation between the categories within mother-child communication quality, specifically those who reported "fairly well" (4.59) "quite well" (6.50), and "extremely well" (6.39), therefore mother-child communication quality was removed from the model. The overall mean VIF of the independent variables was 1.42. To test for heteroskedasticity, the Cook-Weisberg test for heteroskedasticity was implemented which showed there was not heteroskedasticity ( $p = .69$ ). The study further implemented robust standard errors; variance-covariance matrix of the estimators (VCE) robust

test was applied. Normality was visually assessed using histograms of the model residuals, and it was determined the residuals were normally distributed. All analyses were conducted using Stata

**Table 2.2 Unweighted and Weighted Descriptive Statistics (n=3,164)**

Variables	Unweighted		Weighted	Missing Sample
	<i>N</i>	%	%	
<b>Categorical</b>				
<b>Employment Characteristics</b>				
Working weekends	1,183	57.78	33.85	344
Working evenings	615	21.95	20.92	344
Working overnights	306	10.92	8.88	344
Working sporadic	771	27.52	23.92	344
<b>Interaction variable</b>				
Receiving special education	448	14.65	16.39	89
<b>Maternal Employment Characteristics</b>				
Worked in last week	2,221	70.94	73.81	15
Multiple job holding	442	15.89	14.45	365
<b>Mother's physical and mental health</b>				
Good physical health	2,599	82.85	86.66	9
Diagnosed with depression	562	17.90	15.44	7
<b>Mother's Race</b>				
White	666	21.22	37.87	8
Black	1,584	50.48	23.09	8
Hispanic	773	24.63	30.68	8
Other race/ ethnicity	115	3.66	8.36	8
<b>Mother's Education</b>				
Less than high school	557	17.82	14.63	21
High school or equiv.	570	18.24	18.58	21
Some college	1,389	44.45	35.18	21
Bachelor's or higher	609	19.49	31.60	21
<b>Adolescent Gender</b>				
Boy	1,612	51.27	57.10	2
<b>Adolescent Health</b>				
Good health	3,031	96.41	96.85	2
<b>Maternal Context</b>				
Married/ cohabitating	1,755	55.93	70.58	8
<b>Continuous</b>				
		<b>Mean(SD)</b>	<b>Mean(SD)</b>	
<b>Academic Involvement</b>				
School-based Index.	3,059	4.66(2.81)	4.75(2.76)	87
<b>Youth Behavior</b>				
Internalized behavior index	1,701	1.54(1.98)	1.53(2.07)	51
Externalized behavior index	1,936	1.52(1.99)	1.48(1.96)	11
<b>Maternal Context</b>				

Mother's age	3,144	40.77(6.06)	42.58(6.17)	2
Mother's income	3,144	60,400(64,100)	83,900(78,200)	2
<b>Household</b>				
Children in household	3,143	2.60(1.52)	2.44(1.34)	3
<b>Community</b>				
Neighborhood cohesion index	3,134	20.94(3.62)	21.26(3.81)	12

18.

## Results

The overall sample for this study was 3,146. The unweighted and weighted descriptive statistics are shown in Table 2.2. Weighted statistics show mothers have engaged in at least two school-based activities, on average. Of the four nonstandard work variables, the most common among mothers was working weekends (34% of the weighted sample worked weekends), followed by working in sporadic shifts (24%). Further, 74% of the mothers were employed in the past week and 14% engaged in multiple job holding in the past year.

Weighted results show that 38% of the mothers were White, 31% identified as Hispanic, 23% identified as Black, and 8% identified as another race or ethnicity. Thirty-five percent had some college, another 32% had completed college and their average age was 43 years. The transformed income variable indicated a weighted mean household income of about \$80,000 per year. Eighty-seven percent reported that they did not have health problems that limited their ability to work and 15% had been diagnosed with depression. The weighted results for the youth showed that 97% reported good health. Sixteen percent received special education services and, the mean demonstrates that the youth engaged in at least 1 internalized and 1 externalized behavior respectively.

### Multiple Regression Results: School-based Involvement

A multiple regression between mothers' school-based involvement and the four nonstandard employment variables found no statistically significant associations (Model 1).

The regression of school-based involvement on maternal nonstandard employment and other characteristics is statistically significant with  $F(24, 2609) = 4.22, p < .001$ . This model (Model 2) accounts for 3.6% of the variance in maternal school-based involvement ( $R^2 = .036$ ). Regression of school-based involvement on mothers working a sporadic schedule was statistically significant while controlling for covariates ( $b = .28, t(df) = 2.05, p = .04, 95\% CI [.01, .55]$ ). Mothers who worked sporadic schedules had higher levels of school-based involvement, on average, by .28 points compared to those who didn't work sporadic schedules. Working on the weekends, overnights, or evenings showed no significant link with maternal school-based involvement.

Compared to White mothers, Black mothers, on average had .62 points higher school-based academic involvement scores ( $b = .62, t(df) = 4.25, p < 0.001, 95\% CI [.33, .91]$ ). Similarly, Hispanic mothers, on average, had .48 points higher scores than White mothers in their child's school-based activities ( $b = .48, t(df) = 2.89, p < 0.01, 95\% CI [.15, .80]$ ).

Higher education was associated with high maternal school-based involvement at each level of academic attainment. When compared to mothers with less than a high school education, mothers with a high school diploma or equivalent, on average showed .51 points higher school-based involvement ( $b = .51, t(df) = 2.67, p < .01, 95\% CI [.14, .89]$ ), mothers with some college showed .46 points higher school-based involvement ( $b = .46, t(df) = 2.70, p < .01, 95\% CI [.13, .79]$ ), mothers with a college degree or higher showed, on average .96 points higher school-based involvement ( $b = .96, t(df) = 4.58, p < 0.001, 95\% CI [.55, 1.37]$ ). On average, mothers who was diagnosed with depression were .41 points lower involvement in their child's school-based activities than parents who were not diagnosed with depression ( $b = -0.40, t(df) = -2.61, p < .01,$

95% CI [-.70, .10]). A 10,000 dollar increase in a mother's income was associated with a .02 level increase in her school-based involvement ( $b = .02$ ,  $t(df)=2.49$ ,  $p<.01$ , 95% CI [.01, .04]).

Mothers who had a child in special education, and who did not work any of the non-standard work schedules, showed .54 points higher involvement in their child's school-based activities than parents whose child was not in special education ( $b = 0.54$ ,  $t(df)=3.33$ ,  $p=.001$ , 95% CI [.22, .86]). Mothers with a child with good health, on average, showed .75 points higher involvement in their child's school-based activities than parents whose child who did not have good health ( $b = 0.75$ ,  $t(df)=2.46$ ,  $p<.01$ , 95% CI [.15, 1.35]). A unit increase by externalized behaviors was associated with a .09 decrease in maternal school-based involvement ( $b = -.09$ ,  $t(df)=-2.62$ ,  $p<.01$ , 95% CI [-.15, -.02]). A unit increase by internalized behaviors was associated with a .08 decrease in maternal school-based involvement ( $b = .08$ ,  $t(df)=2.43$ ,  $p<.05$ , 95% CI [.02, .14]). The interaction terms between special education and maternal nonstandard characteristics were not statistically significant.

Table 2.3: Linear regressions examining maternal school -based involvement and nonstandard employment

	Model 1: b (SE)	Model 2: b robust (SE)
<b>Employment Characteristics</b>		
Weekend	-.21(.12)	-.12(.13)
Evenings	-.09(.15)	.03(.15)
Overnights	.08(.18)	.02(.19)
Sporadic	4.72(.07)	.28(.14)*
<b>Covariates</b>		
Receiving special education		54(.16)***
<b>Maternal Employment Characteristics</b>		
Worked in last week ( $y=1$ , $n=0$ )		.02(.15)
Multiple job holding ( $y=1$ , $n=0$ )		.13(.15)
<b>Mother's health</b>		
Poor Health		-.19(.17)
<b>Mother's Race</b>		
Black		.62(.15)***
Hispanic		.48(.16)**
Other race/ ethnicity		.12(.31)
<b>Mother's Education</b>		
High school or equiv.		.51(.19)**
Some college		.46(.17)**
Bachelor's or higher		.96(.21)***

<b>Maternal Depression</b>		
Diagnosed with Depression		-.40(.15)**
<b>Adolescent Gender</b>		
Girl		.12(.11)
<b>Adolescent Health</b>		
Good health		.75(.31)**
<b>Youth Behavior</b>		
Mean internalized behavior index		.08(.03)*
Mean externalized behavior index		-.09(.03)**
<b>Relationship Status</b>		
Married/ Cohabiting		.04(.12)
<b>Maternal Context</b>		
Mother's age		.01(.01)
Mother's income		.02(.01)**
<b>Household</b>		
Children in household		-.02(.04)
<b>Community</b>		
Neighborhood cohesion index		-.01(.02)
<b>Moderating effect</b>		
Special education*weekend	-	.18(.31)
Special education*evenings	-	-.52(.37)
Special education*overnights	-	.32(.53)
Special education*sporadic	-	-.26(.33)
<b>Model Info.</b>		
<i>n</i>	2,738	2,634
F	(4,2733)1.33	(24,2609)4.22***
R <sup>2</sup>	.0019	0.0364

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\*  $p < .001$ ; b=coefficients; SE= standard error

A supplementary analysis was conducted with a restricted sample size of 2,222 participants (see Appendix B). This subset included only biological mothers who resided in the home with the youth at the age of 15 years old and had received a regular paycheck in the prior week. By narrowing the sample according to these inclusion criteria, the study aimed to focus the analysis on currently employed mothers. In this model, there was no significant association between mothers working weekends, evenings, overnights, and school-based academic involvement.

Similar to the original model, Mothers who had a child in special education, on average, showed .58 points higher involvement scores in their child's school-based activities than parents whose child was not in special education ( $b = 0.58$ ,  $t(df)=3.17$ ,  $p<.01$ , 95% CI [.22, .94]).

Compared to White mothers, Black mothers, on average, were involved .52 points higher in

school-based academic involvement ( $b = .52$ ,  $t(df)=3.25$ ,  $p = 0.001$ , 95% CI [.21, .83]).

Similarly, Hispanic mothers, on average, were involved .43 points higher than White mothers in their child's school-based activities ( $b = .43$ ,  $t(df)= 2.39$ ,  $p < 0.05$ , 95% CI [.08, .79]). Higher education was associated with high maternal school-based involvement at each level of academic attainment. When compared to mothers with less than a high school education, mothers with a high school diploma or equivalent, on average showed .67 points higher school-based involvement ( $b = .67$ ,  $t(df)= 3.01$ ,  $p < .01$ , 95% CI [.24, 1.11]), mothers with some college showed .66 points higher school-based involvement ( $b = .66$ ,  $t(df)=3.24$ ,  $p = .001$ , 95% CI [.27, 1.05]), mothers with a college degree or higher showed, on average 1.11 points higher school-based involvement ( $b = 1.11$ ,  $t(df)=4.74$ ,  $p < 0.001$ , 95% CI [.65, 1.56]). On average, mothers who was diagnosed with depression had .62 points lower involvement scores in their child's school-based activities than parents who were not diagnosed with depression ( $b = -0.62$ ,  $t(df)= -3.53$ ,  $p < .001$ , 95% CI [-.97, .28]). A 1 unit increase in externalized behaviors is associated with a decrease in maternal school-based involvement by .8 points ( $b = -.08$ ,  $t(df)=-2.29$ ,  $p < .05$ , 95% CI [-.15, -.01]). The interaction terms between special education and maternal nonstandard characteristics were not statistically significant.

## **Discussion**

The present study explored the associations between maternal nonstandard employment and school-based involvement. The objective was to better understand the role, if any, maternal work schedules play in school-based academic involvement while controlling for additional confounding variables. The findings showed a positive association between mothers working a sporadic schedule and school-based involvement. These findings may be due to several factors, one being flexible work arrangements. Prior researchers have acknowledged that nonstandard

employment does allow for flexible work arrangements (White & Maniam, 2020). These flexible work schedules may allow for mothers to attend more school-based activities (Parchomiuk, 2020). Utilizing the ecological systems theory, the flexibility that mothers working sporadic schedules strengthens the connection between home and school connection (mesosystem) by mothers being able to increase engagement in school-based activities which is due its interaction with employment- working sporadic schedules (macrosystem). Interestingly, the results indicated that three of the four nonstandard employment variables did not show a statistically significant association with maternal school-based involvement while controlling for the covariates in the model. This may be due to these schedules not offering the flexibility that working sporadic schedules offer. Role conflict theory can further make sense of the findings as the flexibility in one domain (working sporadic schedules) can reduce the conflicting role in the other domain (school-based academic involvement). The other forms of nonstandard employment may not offer the same flexibility and may conflict with school-based involvement.

In relation to increased time with children, college educated mothers have shown to benefit from having nonstandard employment more than mothers with less education (Pilarz & Awkward-Rich, 2023). Per Pilarz & Awkward-Rich (2023), college-educated mothers may select nonstandard employment to better accommodate their children's schedules (Pilarz & Awkward-Rich, 2023). Similarly, Fuller & Hirsh (2019) noted how access to flexible employment may vary due to a mother's education attainment.

Consistent with existing literature, this study highlighted the strong positive correlation between maternal education attainment and her school-based involvement. Mothers who had higher levels of education showed greater involvement with their child's education. These findings may be due to several factors, one being the mother's confidence in the education

system. Tighe & Davis-Kean (2021) explored family dynamics between low-income families with at least one college-educated parent and children's achievement. The findings showed that low-income, college-educated parents engaged in more school-based activities than less educated parents at the same economic level. The researchers reported college-educated parents may have more experience with navigating the education system through communicating with academic administration and accessing needed resources. Within this study, mothers who have furthered education may be more comfortable participating in academic settings, such as PTA meetings and school recreational events, due to their own academic journey.

Similar to prior researchers (e.g., Tighe & Davis-Kean, 2021), this study found an association between economic factors and school-based involvement. Mothers with higher incomes demonstrated greater engagement with their child's education, suggesting that financial stability may enable parents to invest more time and resources in educational activities. Tighe & Davis-Kean (2021) found low-income, college-educated parents engaged in more school activities than less educated, low-income parents, but did not engage at the same level as high-income, college-educated parents. The researchers noted these findings may be due to the flexibility that high-income, college educated- parents have. Mothers with high income may have less barriers to accessing their child's education, such as reliable transportation and flexible employment.

The study also revealed striking findings in school-based involvement based on race and ethnicity. Specifically, Black and Hispanic mothers exhibited higher levels of school-based involvement than White mothers. These findings may be due to Black and Hispanic mothers experiencing discriminatory practices within the school settings and wanting to ensure they act as an advocate for their child (Parada et al., 2023). Leath et al. (2020) conducted a qualitative

study to explore how Black mothers navigate their child's gendered experience in school. An interesting finding of the study was Black mothers' explicit concerns and active involvement to avoid practices against her children, such as being inappropriately placed in special education or discriminatory treatment. Durand (2011) qualitative analysis found similar results for Latina mothers who placed a salient expectation on their children's high academic achievement. Latina and Black mothers have expressed continued interest in ensuring their children reach academic success, however, expressed being overwhelmed by the continuous fight against discriminatory assumptions (Parada et al., 2023).

Expectedly, the impact of maternal mental health on school-based involvement was also apparent in the findings. Mothers who were diagnosed with depression demonstrated lower levels of school-based involvement than mothers who were not diagnosed with depression. Prior researchers have noted (e.g., Wagner & Valdez, 2023) the challenges that mothers living with depression experience, such as lack of energy (Zhang et al., 2022), challenges with managing time (Kinser et al., 2021), and challenges with task completion (Bembnowska & Joško-Ochojska, 2015; Kaiser et al., 2021). These findings may highlight the challenges mothers diagnosed with depression experience that pose challenges to school-based activities.

Similarly, mothers with children in good health were more likely to be involved in school-based activities than mothers with children not in good health. This may be due to the limited opportunities offered by the school to include children with not in good health. Oswald (2018) suggested that when operationalizing parent involvement for school-based activities, these activities typically center able-bodied students. Therefore, such findings may suggest limited opportunities that mothers with children in not so good health experience, and not necessarily their intentionality and commitment to being academically involved. Furthermore,

depending on the health condition mothers with children not in good health may spend more time ensuring their children get adequate medical care (e.g., Davies et al., 2022).

Contradictory to prior research (e.g., Oswald, 2018), mothers with a child receiving special education services engaged in more school-based activities than mothers who do not have a child in special education. This may be due to mothers with a child receiving special education conducting additional meetings such as, annual Individualized Education Program (IEP) planning (Goldman & Burke, 2019) as well as corresponding with the services that may be identified within the IEP, such as behavioral interventions, speech therapy, occupational therapy, and physical therapy by the (Davidson et al., 2021; Flippin & Hahs-Vaughn, 2020).

As expected, mothers of children exhibiting fewer externalized behaviors were more likely to be involved in school-based activities. This may be due to school-based activities being centered around students with little to no behaviors which gives mothers more opportunities to partake in such activities. Interestingly, mothers of children exhibiting internalized behaviors increased their school-based involvement. This may be due to mothers seeking to actively improve their children internalized behaviors by engaging in an increase of social activities.

### **Study Limitations**

There are several limitations to this study. First, the nonstandard employment measure didn't include information on whether engaging in nonstandard work schedules was due to the mother's choice or the requirement for the position. This is an important distinction as some positions have the option of overtime, which the mother could be opting into rather than the nonstandard schedule being a requirement of her position. There was also limited information on additional individuals that may provide youth with academic support such as the father, grandparent(s), older siblings. This missing information would have provided additional clarity

to understand the mother's degree of academic involvement. Lastly, another limitation is this study is that it is not a causal analysis, therefore, the study cannot prove causation of any variables.

## **Implications for policy, research and practice**

### ***Policy Implications***

This study demonstrates the association between sporadic work schedules and school-based academic involvement. Sporadic work schedules was defined as working at different times, which prior studies (Frick et al., 2020) have identified as having an association with employee absenteeism. Therefore, policy implications are to introduce Fair Workweek legislature throughout the United States. Fair Workweek legislature aims to improve the predictability and stability of work schedules by requiring employers to provide sufficient advance notice (Kwon & Raman, 2023). Harknett et al., 2021 found Seattle's law that required employers to provide a two week notice of work schedules increased schedule predictability, improved subjective well-being, and economic security within the participants. Such policies, if nationally implemented may support in schedule predictability and stability (e.g., Harknett et al., 2021) which may further aid in parental academic involvement.

### ***Research Implications***

Future research may consider exploring if there is an association between specific sporadic work schedules and school-based academic involvement. Frick et al., (2020) examined specific sporadic schedules (i.e., morning, afternoon, and night) and absenteeism. The researchers found that increased absenteeism occurred for those working in the afternoons, in comparison to working morning and night shift. Therefore, future studies should consider if a specific sporadic work schedules (i.e., working sporadically in the morning, afternoon, or night)

had an association to maternal school-based academic involvement. Frick et al., (2020) theorize their findings are due to “social opportunity costs” since, family and friends are enjoying their leisure time in the afternoon and nights. Exploring these schedules in relation to school-based involvement may further inform other systems, such as the education system to offer a range of school-based activities to accommodate different work schedules.

### ***Social Work Practice Implications***

Implications for these findings suggests that social workers should engage in collaborative partnerships with the school systems. School social workers may consider utilizing the National Social Work Practice model that utilizes an ecological orientation across school, family, and community within a tiered prevention model (Crutchfield et al., 2020). The model emphasizes three practice features: providing evidence-based education, behavior, and mental health services; promoting a school climate conducive to student learning and teaching excellence; and maximizing access to school-based and community resources (Crutchfield et al., 2020). School social workers may implement these features by increasing access for the student and families to receive education, behavior, and mental health services that accommodate a range of work schedules (Hoffman & Miller 2020). This may aid in increasing family access to mental health services and behavioral support services.

### **Conclusion**

This study explores the interplay between maternal nonstandard work schedules, and their engagement in their children's school-based activities. The findings showed a positive relationship between mothers working sporadic schedules and increased school involvement. One possible reason may be that sporadic schedules include, suggesting that more flexible work arrangements that may allow for increased school-based academic involvement. Interestingly,

this relationship does not extend to mothers working weekends, evenings, or overnight demonstrating the complex role nonstandard employment may have on school-based involvement.

The research also sheds light on how demographic factors influence school involvement. Higher levels of maternal education and income, along with Black and Hispanic racial identities, are associated with increased school-based involvement. Conversely, mothers experiencing depression are less involved, highlighting the impact of mental health on mothers' ability to participate in school-based activity.

The study also explores the influence of children's characteristics on maternal involvement. The mothers of children with reported good health or those enrolled in special education services have increased school-based involvement, whereas children exhibiting externalized behaviors mothers tend to engage less. These findings have significant implications for policy and practice, suggesting that support for flexible working arrangements, mental health resources for mothers, and inclusive policies for children with health challenges could enhance school-based involvement. For social workers, the study emphasizes the importance of fostering collaborative partnerships with schools to create an environment that supports diverse family needs and accommodates various work schedules. Ultimately, this research underscores the necessity of flexible employment and supportive policies to facilitate parental involvement in education, catering to the nuanced needs of families and their children.

### CHAPTER 3

#### **Paper 2: The association between maternal employment context, home-based academic involvement, and special education**

##### **Literature Review**

There have been persistent educational disparities for racial minorities throughout the United States. According to de Brey et al., (2019) these inequities can be seen in reading and mathematics achievement (e.g., White-Black achievement gap and White-Hispanic achievement gap), out-of-school suspension (e.g., White-Black suspension rates), high school dropout rates (e.g., White-Hispanic dropout rate), and high school completion rates (e.g., White-Black achievement gap and White-Hispanic achievement gap). Low educational outcomes have been linked to detrimental life outcomes such as chronic disease (Anderson & Durstine, 2019; Carter et al., 2019), mental health challenges (McArdle et al., 2014), substance use (Schepis et al., 2018) and employment trajectories (Arpino et al., 2018). Therefore, it is imperative we explore conditions to improve educational outcomes for youth.

Research and policies have acknowledged that increasing parent involvement could improve educational outcomes (e.g., Hill et al., 2004). Traditionally, parent involvement has been synonymous with school setting involvement, such as volunteering at the school, participating in the Parent Teacher Association (PTA), and attending parent–teacher conferences, open houses, and school activities (Greenwood & Hickman, 1991). These activities along with school structures and culture tend to center White, middle-class, able-bodied parents (Goodwin & King, 2002). Despite the disparities that minoritized students experience, their parents are measured by the same criteria as their White, able-bodied counterparts in terms of what it means to be an “involved parent.” Day & Dotterer (2018) utilized recursive partitioning to explore the

association between parent involvement and academic outcomes. The researchers found that African American and Hispanic/Latino adolescents who received greater academic socialization and parent home-based involvement had higher educational attainment, but these conditions did not benefit White adolescents. The finding showed less educational attainment when White adolescents received more home-based involvement and less academic socialization. This tendency of upholding parent involvement to an arbitrary metric without considering contextual factors of the parent may also be extended to parents with students in special education. Though Oswald et al. (2018) found that parents with a child in special education had less parent involvement than parents who did not have a child in special education, the authors acknowledged that these findings may be due to structural barriers of the school or heightened nonacademic care needs of the child.

This study seeks to explore how mothers' employment context influences their academic involvement within the home. This is especially important to understand among minoritized mothers, such as Black mothers with students in special education. The contextual factors that are being considered within this paper stems from another disparity that often impacts the Black community-employment. Studies have shown that in comparison to White and Asian Americans, Black families have increased engagement in precarious employment, lower wages, more erratic schedules, and greater job unpredictability (Perry-Jenkins & Gerstel, 2020). Therefore, this study seeks to understand if maternal nonstandard employment is associated with academic involvement within the home. If so, does the child special education status moderate this association?

### **Defining Parent Involvement**

Prior studies have noted that the challenge of defining parent involvement largely stems from research being conducted without a widely accepted theoretical framework (e.g., Boonk et al., 2018). In the re-authorization of No Child Left Behind (NCLB; 2001), parental involvement was defined as “the participation of parents in regular, two-way, and meaningful communication involving student academic learning and other school activities.” This vague definition has drawn criticism for not having clear measurements for operationalizing parent involvement (Epstein, 2005). Without clear procedures for measuring parent involvement, school personnel, and researchers are left to interpret the law with mixed results (Hirano & Rowe, 2016). For example, Avnet et al. (2019) found a negative relationship between parent involvement and GPA (grade scores with more A’s and B’s), while Gordon and Cui (2012) found a positive association between parent involvement and GPA. However, when taking a close look at both studies, Avnet et al. (2019) defined parent involvement with predominantly school-based measures (e.g., parents volunteering, participating in PTA meetings, etc.), while Gordon and Cui (2012) utilized home-based metrics of parental involvement (e.g., defined as parents assisting their children with their homework and projects, talking to them about school life and their school performance).

These mixed findings have led to reviews exploring the benefits of the different definitions of parent involvement. Wilder (2014) conducted a meta-analyses review that examined the association between parent involvement and student academic achievement. The findings indicated a positive relationship between parent involvement and academic achievement regardless of how scholars defined parent involvement and regardless of race/ ethnic background. The results showed that this relationship was strongest if parental involvement was defined as parental expectations for their children's academic achievement, while the relationship

was the weakest if parental involvement was defined as homework assistance. Furthermore, the findings suggested the strength of the relationship varied based on how student achievement was operationalized within the original studies. Similarly, Boonk et al. (2018) conducted a review examining the association between parent involvement and student academic achievement as well, but these researchers utilized 75 studies published between 2003 and 2017. The association between parental involvement and academic achievement was not the same for all ethnic/racial groups, and not all parental involvement was positively associated with academic achievement. The researchers went on to report that parental involvement measurements that showed the most promising association with academic achievement were: (a) reading at home, (b) parents holding high expectations/aspirations for their children's academic achievement and schooling, (c) communication between parents and children regarding school, (d) parental encouragement and support for learning. Interestingly, these associations are not solely designated for school-setting involvement but for parental involvement within the home.

As a result, this study utilized similar measurements to define home-based parent academic involvement. Not only have prior scholars noted the significance of home-based involvement (e.g., Boonk et al., 2018), but traditional conceptualizations of parent involvement within school settings exacerbate a power imbalance between schools and families (Van Laere et al., 2018). Love et al. (2021) identified a consequence of this academic power imbalance as positioning marginalized families from a deficit-perspective. The qualitative findings revealed that the avoidance of some Black families within school-settings is often due to being in a system that is unresponsive to them. The researchers went on to note that by solely defining parent involvement as school-based involvement, Black families will continue to experience deficit-positioning due to the underpinning of racism and ableism within the school system.

## **Barriers to Parent Academic Involvement**

### ***Structural Barriers***

Thus far, this manuscript has noted structural barriers within education that reduce parent involvement. Goss (2019) utilized structuration theory to examine barriers to parent involvement. Through a thematic analysis, the research found several themes from the parent's interviews: feeling unwanted, being kept in the dark by school administration and, feeling bullied and the school having a fear-based culture. A similar qualitative study was conducted by Jefferson (2015) that explored Black and Latinx parent's experiences of school structural barriers. The findings of this study showed that parents historically experienced barriers to physical space and information. Furthermore, the school enforced and sustained these barriers through policies and practices. Below is a quote from a teacher, who explained their school's "Parent Involvement" policy, and which demonstrates the restrictive nature of volunteering within the school:

Volunteering - this has been a little bit more different because we have had an interest in volunteering but for logistical - trying to do - you have to do background checks and all this. And then if someone doesn't have papers it just gets - because we try to have parents volunteer out on the playground to increase the safety outside. So we have some that will come. And we have special vests that they wear. And we had training on what their duties would be outside. But it kind of seems hard to keep that going just because all the red tape you need to go through to keep that going. But I know a lot of teachers at the back-to-school night have a sign-up. If you ever want to come into class or there's something you're interested in helping out with or teaching, if you have any skills you want to share with our kids. (Jefferson, 2015, pg. 73).

This speaks to the role policies and procedures, specifically documentation, has in reinforcing structural barriers. Phillips (2008) reported some of the structural challenges in providing special education services are due to additional documentation requirements as well as inadequate funding. The researcher reports that these barriers could divert school administrators' attention towards administrative tasks, like meeting funding requirements, rather than focusing on building meaningful relationships with parents (Bacon & Causton-Theoharis, 2013). Furthermore, inadequate funding may center the needs of the parents (most of whom are higher-social economic status and White), who are able to contribute valued resources, such as donations and volunteering within the classroom to the school (Calarco, 2020). Though these barriers may appear unintentional they fortify differential school responses between parents as well as lack of parent-school communication, which may discourage parental involvement (Jefferson, 2015).

### ***Economic Barriers***

Like structural barriers within the education system, the labor market also poses challenges to parent involvement. Research has shown that socioeconomic status plays a significant role in parent involvement through factors such as lower flexibility in work schedules, being a single parent, and fewer financial resources (e.g., Turney & Kao, 2009). When exploring parent involvement among part-time, full-time, and unemployed mothers, Youn et al. (2012) found that students whose mothers were employed part-time had the highest rates of school participation and parent-child interaction resulting in their enhanced educational development. The researchers found when comparing students of full-time mothers and students of unemployed mothers, students of unemployed mothers had an advantage of learning growth due to higher rates of parent school participation and more educational trips compared to those whose

mothers worked full-time. These findings highlight the complexity of intersecting contexts such as work schedules, being a single parent, and having fewer financial resources. Similarly, Holmes et al. (2018) found mothers who worked full-time standard (e.g., 8-5pm) schedules reduced their involvement in their child's school in comparison to other work schedules such as part-time and a varying full-time schedule (e.g., including evenings and weekends). These findings show forms of working nonstandard employment, such as working evenings and weekends may actually increase academic involvement. However, nonstandard employment conditions are often associated with precarious employment, characterized by reduced job security, unpredictable hours, and limited access to benefits (Rönblad et al., 2019; Government Accountability Office, 2000). Albelda et al. (2020) found that women, Black, and Hispanic workers experience higher economic insecurity in precarious employment, highlighting wage gaps as a contributing factor.

Outside of wage gaps, another possible factor for Black workers to seek insecure jobs may be due to low employment rates. According to Wilson (2019) Black unemployment is at least twice as high as White unemployment at the national level and in 14 states. Therefore, employment insecurity within the labor market has detrimental consequences and may increase the likelihood of multiple job holding (Carney et al., 2018) or seeking nonstandard employment (Hipp et al., 2015).

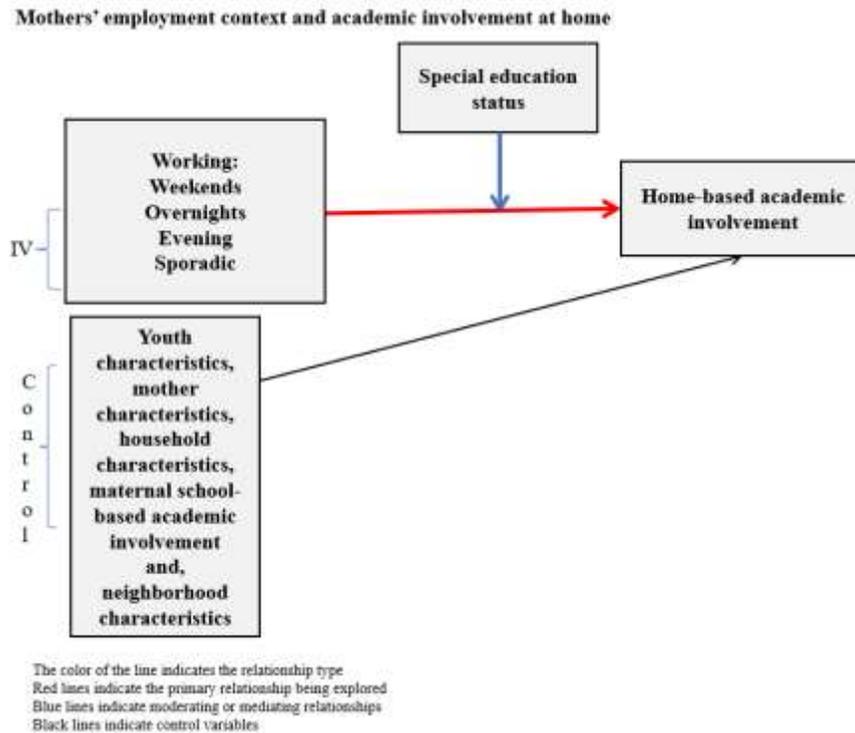
These employment characteristics (i.e., nonstandard employment) combined with the school structural barriers that Black and Latinx parents experience (Jefferson, 2015) may further increase parents' home-based involvement, especially for parents with students in special education. Kirksey et al. (2022) not only found families were more likely to increase their home-based involvement once their child qualified for special education services, but this positive

association was especially pronounced for Black and Latinx parents. Little is known about how specific employment characteristics such as nonstandard work schedules may pose a barrier to parent academic involvement, especially for those with a child in special education.

### *Additional Barriers*

Additional barriers to parent involvement may include being in single-parent households (Li & Fischer, 2017), neighborhood characteristics (Bhargava & Witherspoon, 2015) and, factors that limit time (e.g., having small children and inflexible work schedule; Murray et al., 2014; Ringenberg & McElwee, 2009). These additional challenges further fuel an already complex dynamic of the barriers to parent involvement. To better understand the dynamics of the interaction, I propose to explore the association between mothers' employment characteristics and their academic involvement within the home, and how this might vary by the child's special education status, as shown in Figure 3.1.

Figure 3.1



## Research Questions and Hypotheses

As shown in Figure 3.1, this study asks two research questions and proposes related hypotheses:

Q1. *What is the association between maternal employment characteristics and home-based academic involvement?*

H3a. Mothers who work weekends are more likely to engage in home-based involvement.

H3b. Mothers who work evenings are less likely to engage in home-based involvement.

H3c. Mothers who work overnights are less likely to engage in home-based involvement.

H3d. Mothers who work sporadic schedules are more likely to engage in home-based involvement.

Q2. *Does having a child with special education status moderate this relationship?*

- H4. The relationship between mothers' nonstandard employment and home-based academic involvement will depend on child's special education status.

### **Theoretical Frameworks Guiding this Paper**

Two social science theories inform this study, role conflict theory, and ecological systems theory. I will briefly introduce these theories below.

#### **Role Conflict Theory**

Role conflict theory posits while holding two or more roles simultaneously, complying with both will be difficult (derived from Kahn et al., 1964 as cited in Greenhaus & Beutell, 1985). This theory utilized several types of role conflicts, including work-family conflict, that describes how incompatible work and family roles compete for time, strain, and/ or behaviors. This study allowed role conflict theory to guide our understanding of how the mother's contextual factors, such as work schedule, compete with her involvement with her child's schooling. Furthermore, it added to our understanding if the increased number of roles the mother has, such as having a child in special education and nonstandard employment, may compete with parent academic involvement.

#### **Ecological Systems Theory**

Ecological Systems Theory emphasizes the importance of multiple contexts, or interrelated settings in which development occurs (Bronfenbrenner, 1993) by observing individuals' behavior and development in the context of their lives, environments, families, and surroundings (Darling, 2007). Therefore, this theory was be utilized to better understand how contextual factors, such as maternal employment status, influence the mother's school involvement.

Integrating Role Conflict Theory and Ecological Systems Theory provides a comprehensive framework for understanding the potential association between mothers working nonstandard employment and home-based academic involvement. Role Conflict Theory posits that the incompatible demands of work and family roles, specifically mothers working nonstandard schedules may strain mothers' ability to engage in home-based academic involvement. Having a child in special education may further strain mothers' role due to the complexity and demands of navigating these demands. These scheduling conflicts often coincide with key times for home-based academic involvement, thereby limiting opportunities for mothers to support their children's educational needs effectively.

Ecological Systems Theory expands on this by placing the individual and familial challenges within a broader context of interrelated systems that influence behavior and development. It highlights how maternal nonstandard employment functions within the microsystem, which is embedded in the macrosystem that holds societal expectations around maternal roles within the home and employment. This theory demonstrates the importance of considering the interactions between the mother and the school system (mesosystem) and how external factors like workplace expectations (exosystem) can facilitate or hinder a mothers' ability to engage in home-based academic involvement. These theories offer insight of the challenges mothers may experience in engaging in home-based academic involvement.

### **Methods**

As in Paper 1, in Paper 2, I used secondary, publicly available FFCWS data. The survey interviewed mothers, fathers, or caregivers of 4,898 focal children born to unwed families in large U.S. cities between 1998 and 2000 (Reichman et al., 2001). The interviews were conducted

at birth and when the child reached 1, 3, 5, 9, and 15 years of age. At ages 9 and 15, they also interviewed the child.

### **Sampling**

The current study utilizes wave 6 (when the child was 15 years old) since this wave of data have individual and school variables that allow for a contextual understanding of factors contributing to maternal academic involvement (n=3,146).

### **Measures**

Using the list of items from Appendix A, a more concise operational definition was created and applied in this paper.

#### ***Dependent Variable***

*Home-based academic involvement:* A summed index measure of a mother's involvement in home-based academic involvement in 4 activities (checked homework completion, helped a child with homework, discussed current events, and discussed youth's day) in Waves 6 was created. Respondents answered "never" (coded as 0), "sometimes" (coded as 1), and "often" (coded as 2). Therefore, participating in none of the activities would be 0 and participating in all the activities often would be an 8; the variable ranged from 0 to 8. The missing values for the dependent variables was 0.4% of the total observations therefore, a sensitivity analysis was not conducted.

#### ***Independent Variable***

*Maternal nonstandard employment:* Derived from Wave 6, four binary variables were created based on the mother's work schedule: regularly works weekends, evenings (6pm—11pm), overnights (11pm—7am) and, different times each week ("sporadic").

#### ***Moderating Variable***

*Child special education status:* A dummy variable was created at Wave 6: the child is in special education, coded as 1, or the child is not in special education, coded as 0.

### ***Control Variables***

In addition, the following variables were included as controls: mother's employment (engaging in multiple job holding and employment status), mother's characteristics (race, age, education, income, health and, depression,), youth's characteristics (gender, health, internalized behavior(s), and externalized behaviors), household characteristics (number of children in the home and relationship status) and, neighborhood cohesion.

### **Data Analysis Plan**

This study conducted both weighted and unweighted descriptive statistics of all variables used in the 6th wave, with population weights provided by the Future of Families dataset. Next, and to answer the first research question, multiple regression analysis was run to assess whether any of the four maternal nonstandard employment variables were significantly related to the outcome variable (Model 1). Then, covariates that included youth, mother, household, and neighborhood characteristics were added as well as multiplicative terms between the four maternal nonstandard employment variables and the child's special education status. (Model 2).

### **Data Analysis Strategies and Diagnostic Tests**

This study implemented multicollinearity and Heteroskedicity tests. To test for multicollinearity among the independent variables, variance inflation factors (VIF) was generated for the model. The observed mean VIF for mothers working weekends was 1.36, working evenings was 1.34, working overnights 1.15, and working sporadic schedules was 1.30.

In each case, there were no signs of multicollinearity among the independent variables, all ranging under 4. The overall mean VIF of the independent variables was 1.42. To test for Heteroskedasticity, the Cook-Weisberg test for heteroskedasticity was implemented which showed there was heteroskedasticity ( $p < .001$ ). Therefore, the study implemented the variance-covariance matrix of the estimators (VCE) robust standard error, which is robust to heteroskedasticity. Normality was visually assessed using histograms of the model residuals, and it was determined the residuals were normally distributed. All analyses were conducted using Stata 18.

## **Results**

The unweighted and weighted descriptive statistics are shown in Table 3.1. The weighted statistics showed that all mothers in the sample engaged in at least one kind of home-based involvement. Of the four nonstandard work variables, the most common among mothers was working weekends (34% of the weighted sample worked weekends), followed by working in sporadic shifts (24%). When reviewing employment status, 74% of the mothers were employed and, 14% engaged in multiple job holding.

Table 3.1 weighted results showed that 38% of the mothers were White, 31% identified as Hispanic, 23% identified as Black, and 8% identified as another race or ethnicity. Thirty-five percent had some college, their average age was 43 years. The transformed income variable indicated the weighted mean of about \$80,000 per year. Eighty-seven percent reported that they did not have health problems that limit their ability to work, and 15% have been diagnosed with depression. The weighted results for the youth showed that 97% reported good health. Sixteen percent received special education services and, the mean demonstrates that the youth engaged in at least 1 internalized and 1 externalized behavior.

**Table 3.1 Unweighted and Weighted Descriptive Statistics (n=3,164)**

Variables	Unweighted		Weighted	Missing Sample
	<i>N</i>	%	%	
<b>Categorical</b>				
<b>Employment Characteristics</b>				
Working weekends	1,183	57.78	33.85	344
Working evenings	615	21.95	20.92	344
Working overnights	306	10.92	8.88	344
Working sporadic	771	27.52	23.92	344
<b>Interaction variable</b>				
Receiving special education	448	14.65	16.39	89
<b>Maternal Employment Characteristics</b>				
Worked in last week	2,221	70.94	73.81	15
Multiple job holding	442	15.89	14.45	365
<b>Mother's physical and mental health</b>				
Good physical health	2,599	82.85	86.66	9
Diagnosed with depression	562	17.90	15.44	7
<b>Mother's Race</b>				
White	666	21.22	37.87	8
Black	1,584	50.48	23.09	8
Hispanic	773	24.63	30.68	8
Other race/ ethnicity	115	3.66	8.36	8
<b>Mother's Education</b>				
Less than high school	557	17.82	14.63	21
High school or equiv.	570	18.24	18.58	21
Some college	1,389	44.45	35.18	21
Bachelor's or higher	609	19.49	31.60	21
<b>Adolescent Gender</b>				
Boy	1,612	51.27	57.10	2
<b>Adolescent Health</b>				
Good health	3,031	96.41	96.85	2
<b>Maternal Context</b>				
Married/ cohabitating	1,755	55.93	70.58	8
<b>Continuous</b>				
		<b>Mean(SD)</b>	<b>Mean(SD)</b>	
<b>Academic Involvement</b>				
Home-based Index.	3,059	6.02(1.52)	5.97(1.55)	17
<b>Youth Behavior</b>				
Internalized behavior index	1,701	1.54(1.98)	1.53(2.07)	51
Externalized behavior index	1,936	1.52(1.99)	1.48(1.96)	11
<b>Maternal Context</b>				
Mother's age	3,144	40.77(6.06)	42.58(6.17)	2
Mother's income	3,144	60,400(64,100)	83,900(78,200)	2
<b>Household</b>				
Children in household	3,143	2.60(1.52)	2.44(1.34)	3
<b>Community</b>				

Neighborhood cohesion index	3,134	20.94(3.62)	21.26(3.81)	12
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### **Multiple Regression Results: Home-based Involvement**

Table 3.2, Model 1, showed that the regression between mothers' home-based involvement and working weekends was statistically significant: Mothers working weekends lowered home-based involvement scores by .17 points. (b: -.17, t(df)= -2.55,  $p < .01$ , CI [-.30- .04]). No other nonstandard work variables were statistically significantly related to maternal home-based involvement.

Table 3.2, Model 2, which adds several control variables, showed that the regression of home-based involvement on maternal nonstandard employment and other characteristics was statistically significant with  $F(24, 2605) = 6.49, p < .001$ . This model accounts for 6% of the variance in maternal home-based involvement ( $R^2 = .06$ ). The association between mothers' home-based involvement and working on weekends was maintained while controlling for covariates (b= -.15, t(df)= -2.29,  $p < .05$ , 95% CI [-.29, -.02]). The other characteristics of maternal nonstandard employment, working overnights, evenings, or sporadically was not statistically significant at the bivariate or multivariate level.

On average, Black mothers' home-based academic involvement of their child's home-based activities was .35 points higher than White mothers (b = .35, t(df)=4.16,  $p < 0.001$ , 95% CI [.18, .51]). Similarly, mothers' who identified as an identity other than Black, Hispanic, or White, had home-based academic involvement scores that were .34 points higher than White mothers (b = .34, t(df)=2.07,  $p < 0.05$ , 95% CI [.02, .66]). Higher education, on average was associated with higher maternal home-based involvement. When compared to mothers with less than a high school education, mothers with some college showed .31 points higher home-based involvement (b = .31, t(df)=3.53,  $p < 0.001$ , 95% CI [.14, .49]), and mothers with a college degree

or higher showed .51 points higher home -based involvement ( $b = .51$ ,  $t(df)=4.57$ ,  $p < 0.001$ , 95% CI [.29, .73]). A 10,000 increase in mother's income was associated with a .01 level decrease in her home -based involvement ( $b = -.01$ ,  $t(df)=-2.15$ ,  $p<.05$ , 95% CI [-.02, -.001]). A one-year increase in mother's age was associated with a 0.02 decrease in home involvement score ( $b = -.02$ ,  $t(df)= -3.51$ ,  $p<0.001$ , 95% CI [-.03, -.01]).

Table 3.2: Linear regressions examining maternal home -based involvement and nonstandard employment

	Model 1: b (SE)	Model 2: b robust (SE)
<b>Employment Characteristics</b>		
Weekends	-.17(.07)**	-.15(.07)*
Evenings	-.10(.08)	-.08(.08)
Overnights	.16(.10)	.11(.10)
Sporadic	.13(.07)	.14(.07)
<b>Covariates</b>		
Receiving special education		.29(.10)**
<b>Maternal Employment</b>		
Worked in last week (y=1, n=0)		-.01(.08)
Multiple job holding		.05(.08)
<b>Mother's health</b>		
Poor Health		.02(.09)
<b>Mother's Race</b>		
Black		.35(.08)***
Hispanic		.16(.09)
Other race/ ethnicity		.34(.16)*
<b>Mother's Education</b>		
High school or equiv.		.18(.11)
Some college		.31(.10)***
Bachelor's or higher		.51(.12)***
<b>Maternal Depression</b>		
Diagnosed with Depression		-.13(.08)
<b>Adolescent Gender</b>		
Girl		.13(.06)*
<b>Adolescent Health</b>		
Good health		.38(.20)*
<b>Youth Behavior</b>		
Mean internalized behavior index		.001(.02)
Mean externalized behavior index		-.10(.02)***
<b>Relationship Status</b>		
Married/ Cohabiting		.03(.06)
<b>Maternal Context</b>		
Mother's age		-.02(.01)***
Mother's income		-.01(.01)*
<b>Household</b>		
Children in household		-.04(.02)

<b>Community</b>		
Neighborhood cohesion index		-.03(.01)***
Special education* Weekend	-	.01(.19)
Special education* Evenings	-	-.08(.22)
Special education* Overnight	-	.60(.25)*
Special education* Sporadic	-	.19(.20)
<b>Model Info.</b>		
<i>N</i>	2,791	2,630
<i>F</i>	(4,2786)2.70	(24,2605)6.49***
<i>R</i> <sup>2</sup>	.0039	.060

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\*  $p < .001$ ;  $b$ =coefficients;  $SE$ = standard error

Mothers who have a child in special education, on average, showed .29 points higher involved in their child's home -based activities than parents whose child is not in special education ( $b = 0.29$ ,  $t(df)=3.33$ ,  $p = 0.001$ , 95% CI [.12,.47]). A unit increase by externalized behaviors was associated with a .08 decrease in home-based involvement ( $b = -.10$ ,  $t(df) = -5.56$ ,  $p < 0.001$ , 95% CI [-.13, .06]). Mothers with a child who reported their child in not so good health, home-based involvement had .38 points lower. ( $b = -.38$ ,  $t(df)= 2.28$ ,  $p < 0.05$ , 95% CI [.05, .70]). Mothers with daughters, engaged in .13 points higher home-based involvement than mothers who had reported to have sons ( $b = .13$ ,  $t(df)= 2.15$ ,  $p < 0.05$ , 95% CI [.01, .24]). A 1-point higher neighborhood cohesion index score was associated with a .03 point lower home based involvement score ( $b = -.03$ ,  $t(df)= -3.41$ ,  $p = 0.001$ , 95% CI [-.05, -.01]).

The interaction term (Special education\* working overnights) was significant. Having a child in special education had an even larger positive impact on home-based involvement scores among women working overnights ( $b = .60$ ,  $t(df)= 2.39$ ,  $p < .05$ , 95% CI [.11, 1.09]). The interaction term between special education and the other nonstandard characteristics were not significant. In other words, having a child with special education in the household did not change the relationship between working weekends, evenings, or overnights and mothers' home-based involvement.

A supplementary analysis was conducted with a restricted sample size of 2,222 participants (see Appendix B). This subset included only biological mothers who resided in the home with the youth at the age of 15 years old and had received a regular paycheck in the prior week. By narrowing the sample according to these inclusion criteria, the study aimed to focus the analysis on currently employed mothers. In this model, mothers who worked weekends had .15 lower involvement scores in their child's home-based activities than mothers who did not work weekends ( $b = -.15$ ,  $t(df)=1.93$ ,  $p=.05$ , 95% CI [-.30, .002]). None of the other nonstandard employment characteristics were significant.

Similar to the original model, mothers who had a child in special education, on average, showed .27 points higher involvement scores in their child's home-based activities than parents whose child was not in special education ( $b = 0.27$ ,  $t(df)=2.50$ ,  $p=.01$ , 95% CI [.06, .48]). Compared to White mothers, Black mothers, on average had .32 points higher home-based academic involvement scores ( $b = .32$ ,  $t(df)=3.55$ ,  $p<0.001$ , 95% CI [.14, .50]). Higher education was associated with high maternal home-based involvement. When compared to mothers with less than a high school education, mothers with a high school diploma or equivalent, on average showed .28 points higher home-based involvement scores ( $b = .28$ ,  $t(df)= 2.17$ ,  $p<.05$ , 95% CI [.03, .54]), mothers with some college showed .39 points higher home-based involvement scores ( $b = .39$ ,  $t(df)=3.44$ ,  $p=.001$ , 95% CI [.17, .62]), mothers with a college degree or higher showed, on average .60 points higher home-based involvement scores ( $b = .60$ ,  $t(df)=4.59$ ,  $p < 0.001$ , 95% CI [.35, .86]). The more externalized behaviors a youth engaged in, the lower levels of maternal home-based involvement ( $b = -.10$ ,  $t(df)=-4.15$ ,  $p<.001$ , 95% CI [-.14, -.05]). As mothers age increased, maternal home-based academic involvement decreased ( $b = -.02$ ,  $t(df)=-3.09$ ,  $p<.01$ , 95% CI [-.03, -.01]). A 1-point higher neighborhood cohesion index score was

associated with a .03 point lower home based involvement score ( $b = -.03$ ,  $t(df)=-3.03$ ,  $p<.01$ , 95% CI [  $-.05$ ,  $-.01$ ]).

## **Discussion**

The aim of this study was to explore if there was an association between maternal home-based involvement and maternal nonstandard employment. Interestingly, there was a positive association between home-based involvement and mothers working weekends, but not with any of the other nonstandard employment characteristics.

These findings may be because working weekends have a more pronounced deviation from working a Monday through Friday schedule regardless of the other nonstandard employment characteristics. Lee et al., (2017) found mothers working more weekend shifts predicted less consistency in youths' schedule. Interestingly, the author's noted, though the weekends promoted inconsistency in youth's schedule, it did not disrupt shared time with youth. Such inconsistency and disruption in daily routines may promote mothers to focus on more shared and bonding time instead of home-based academic involvement. Traditionally families have utilized weekends to bond (as noted in Jasuale, 2023) which may be a reason why nonstandard employment characteristics such as working evenings, sporadically, or overnight does not require the same degree of shared time.

Consistent with previous research, there is a positive correlation between maternal education and home-based involvement. This study demonstrated that as maternal education increased so does maternal home-based activities. This may be due to several conditions, one being mothers with higher education may have more experience navigating educational material than mothers with less education attainment (Cross et al., 2019; Ryberg & Guzman, 2023). With

increased experienced navigating educational materials, mothers with higher education may have more resources to support their children in the home setting.

This access to increased resources may also lend itself to decreased maternal home-based involvement. Prior research (e.g., Kosunen et al., 2021) has shown youth coming from higher SES have more access to educational support within the community due to their parents' financial support. Such research may explain the current findings that as mothers' income increases, they reduce their home-based involvement. Interestingly, while financial stability may have increased maternal school-based involvement, it decreased maternal home-based academic involvement. This suggests that financial stability might not always directly translate into increased academic involvement. Similarly, maternal age and home-based involvement also had a negative association. This may be due to similar reasons as maternal income, which is that as mothers gain more access to resources and support this decreases her home-based involvement. Correspondingly, the findings show neighborhood cohesion lowers mothers' home-based involvement. This finding may be due to the youth being able to access support within the neighborhood. Prior research (e.g., Plesko et al., 2021) noted the significance of parents having cohesion within their community and, the higher the cohesion acts as formal and informal resources to their children. These supports may be in the forms of providing educational, financial, and social resources (Plesko et al., 2021). The study's findings showed the significance of racial disparities in maternal involvement, with Black mothers and mothers who identified as "other" exhibiting higher levels of engagement in their child's home-based activities compared to White mothers. This may be due to several factors, but one may be due to cultural values and priorities. Some Black families esteem education to a high regard and education as a means towards upward mobility (Parada et al., 2023). Since, 1986 there has been a steady

increase of Black women who went to further their education (Haynes et al., 2020). This may speak to Black mothers' motivation in supporting their child within the home.

Mothers with a child receiving special education services engaged in more home-based activities than mothers who do not have a child in special education. This may be due to mothers with a child receiving special education may need more support to complete home-based activities. Mothers with a child who reported good health was more involved in home-based activities than mothers who report their child does not have good health. This may be due to mothers who reported children were not in good health needing to prioritize nonacademic services such as medical appointments (as noted in McClanahan & Weismuller, 2015). Similar to prior research, mothers of children exhibiting externalized behaviors had reduced points of being involved in home-based activities. This may be due to mothers with children exhibiting more externalized behaviors prioritizing managing their child's behaviors over home-based academic involvement.

Interestingly, the findings show that girls receive more maternal home-based academic involvement than boys. There may be several reasons for these findings that may be rooted in gendered approaches to education. Silinskas & Kikas (2019) found boys are more inclined to see parent support as controlling than girls. The authors went on to report that girls were more task persistent than boys in completing homework. Based on the current findings, mothers being more involved with girls for home-based involvement may be due to boys having lower receptiveness to receiving home-based academic support from their mother.

### **Limitations**

A notable limitation within the study was the operationalization of home-based academic involvement. The independent variable used a summed index of four activities that may not

capture the range of home-based activities that mothers engage in (e.g., providing in-home educational resources). Another limitation of the study, was not controlling for community resources, such as after school programs or athletic participation that may aid in homework support. The model attempted to control for community resources through neighborhood cohesion, however, the variable does not cover the range of resources that may be available to mothers for home academic support.

## **Implications for policy, research and practice**

### ***Policy Implications***

This study demonstrates the negative association between regularly working weekends and home-based academic involvement. Regularly working weekends has been associated with a decline in mental health (Sato et al., 2020) which scholars (e.g., Fritz et al., 2005) have attributed to a reduction of socialization opportunities with family and friends. Therefore, future policies may consider increasing access to mental health services by offer mental health. According to the Society for Human Resource Management (2022) 1 in 5 employers offer mental health days outside of regular sick leave. By increasing mental health days, employees regularly working weekends may have increased access to mental health services as well as opportunities for increase social engagement.

### ***Research Implications***

Future studies should explore the frequency of working weekends within a given time period on maternal home-based academic involvement. This study along with other scholars (e.g., Sato et al., 2020) controlled for regular schedules, however, future studies should consider rotating weekend schedules. This exploration may inform employer scheduling as it

acknowledges the potential need of weekend work, but consistent weekend schedules that may impede on work-life balance.

Furthermore, future research should also examine the effectiveness of after school programs and mothers working weekends to better understand how the service is utilized. By exploring how maternal work schedules and after school utilization, future research may highlight the need of accessing students with parents with more complex work schedules. In addition, such studies should utilize sensitivity analysis to determine if race or child ability status determines how mothers interact with the service. Prior studies (e.g., Sule et al., 2021) has demonstrated the need of how after-school programs can aid in the critical consciousness of the participants. Therefore, historically marginalized students may be able to further engage in activities and dialogue that not be able readily available due to maternal work schedules conflicts.

### ***Social Work Practice Implications***

Social workers can play a pivotal role in addressing the barriers to home-based academic involvement identified in this study. School social workers can engage in agenda setting and policy initiation (De Corte & Roose, 2020) by determining the individual needs of families to increase home-based academic support. The survey should include a Likert scale that includes the measures that operationalized home-based academic involvement (i.e., “discussed youth’s day”) as well as obtaining the sociodemographic, families work schedule, and barriers to completion. Based on the survey, social workers can present the findings to the school and the local government. Such actions can begin the process of policy change within the region (De Corte & Roose, 2020).

## **Conclusion**

This study explores the relationship between maternal nonstandard employment and maternal involvement in home-based academic activities. The findings reveal a significant association found between mothers working weekends and reduced home-based involvement. There was no association between the other maternal nonstandard employment characteristics, working evenings, overnights, and sporadic schedules and maternal home-based involvement. Additionally, the research highlights demographic factors influencing home-based involvement: Black mothers and mothers who identified as “other” showed higher levels of home-based involvement than White mothers, as did mothers with higher levels of education. Interestingly, an increase in a mother's income was associated with a slight decrease in home-based involvement, suggesting that financial stability might enable access to external educational support, thereby reducing direct maternal home-based involvement.

The study also found that maternal age and neighborhood cohesion negatively correlated with home-based academic involvement, implying that older mothers and those in cohesive neighborhoods might have access to more resources or community support, therefore, reducing maternal home-based academic involvement. Moreover, mothers of children receiving special education services or with reported “good health” were more involved in home-based activities, highlighting the nuanced dynamics of care and support within the home. Contrarily, mothers of children exhibiting increased externalized behaviors engaged less in home-based academic activities, potentially due to prioritizing behavioral management over academic support. Mothers of daughters demonstrated higher home-based academic involvement than mothers of sons, which could be attributed to gendered perceptions of parental support and task persistence in educational tasks.

## CHAPTER 4

**Paper 3: The association between maternal nonstandard employment, suspensions or expulsions from school, and special education****Prevalence of School Suspension**

According to the Office of Civil Rights, students missed 11,205,797 school days between academic year 2017-2018 due to out-of-school suspensions (U.S. Department of Education, 2021). The findings went on to report that students served under Individuals with Disabilities Education Act (IDEA), although they included only 13.2% of total student enrollment, received 20.5% of one or more in-school suspensions, 24.5% of one or more out-of school suspensions, 23.3% of all expulsions with educational services and, 14.8% of expulsions without education services. Not only have studies shown that students in special education receive suspension and expulsion at a higher rate than students who are not in special education (Balfanz & Fox, 2014; Sullivan et al., 2014), but they also do so for longer frequencies and durations (Vincent and Tobin, 2011).

Several factors have influenced suspension even when controlling for special education status. Specific disorders within special education have a higher risk of suspension than other diagnoses (Anyon et al., 2014). Diagnoses such as emotional disturbance and learning disabilities have been shown to have the highest risk of suspension among students in special education (Bal et al., 2019; Brobbey, 2018; Losen et al., 2014). Achilles and colleagues (2007) showed how students with a diagnosis of attention-deficit/ hyperactivity disorder (ADHD) and emotional disturbance also experienced a high likelihood of suspension. These findings were similar to Sullivan and colleagues (2014), who showed the importance of disaggregating samples of students within special education to better understand discipline disparities. The researchers

found students with emotional disturbances and other health impairments had a higher prevalence of suspension in comparison to students with other disabilities.

### *Race*

Research has shown how students of color, specifically Black students, are disproportionately represented in-school suspension (Achilles et al., 2007). According to the Office of Civil Rights, in 2017-18 rates of Black students receiving one or more of all in-school suspension (31.4%) and one or more of all out-of-school suspensions (38.2%) was twice the total enrollment of Black students (15.1%). Similarly, the same report noted parallel disparities of pre-school age Black students' rates of out-of-school suspension. Of all out-of-school suspensions, 43.3% were received by Black preschoolers despite their total enrollment being only 18.2%. Research has heavily documented the disproportionate representation of Black student suspensions and the varying factors contributing to suspension disparity (Perry & Morris, 2014). Chin et al., (2020) found that in counties with higher levels of educator racial bias toward Black people, there is a disparity of suspension between White and Black students. While there is extensive research on Black suspension, new research is beginning to emerge surrounding other students of color and their experience with suspension. In 2017-18, American Indians or Alaska Natives were also slightly overrepresented in-school suspensions. The population received 1.3% of all in-school suspensions and 1.4% of all out-of-school suspensions despite being 1% of the total enrollment (US Department of Education Office of Civil Rights, 2018). Gordon et al. (2000) found that students of color, specifically African American, Latino and, Native American students experienced exclusionary discipline at a disproportionate rate compared to White students. The authors noted that not only did these students have less access to advanced classes

or programs for gifted students than their White counterparts, but they were less likely to have teachers matching their own racial representation.

***Additional factors influencing suspension:***

Among students in lower-income families, extensive research has shown that male students have a higher risk than female students of receiving suspensions (Achilles et al., 2007; Bowman-Perrott et al., 2013; Wright et al., 2014). Secondary schools have higher suspension rates than primary schools (Butler et al., 2012). Furthermore, school-level characteristics such as the racial makeup of the school are also important when exploring suspension rates (Skiba et al., 2014). Edwards (2016) findings suggest that higher percentages of Black students within a school is associated with increased odds of suspension and expulsion. Cheng (2019) found that increasing the representation of Black high school teachers reduces Black student suspensions.

**Consequences of Suspension**

School suspension has an array of consequences that increase the risk of poor academic achievement (Morris & Perry, 2016). Students who have been suspended have increased risk of multiple suspensions (Raffaele Mendez, 2003), higher dropout rates (Fabelo et al., 2011), and lower educational achievement (Noltemeyer et al., 2015; Raffaele Mendez, 2003). Lee and colleagues (2011) analyzed data from 289 Virginia public schools and found that suspension had an adverse effect on students completing high school. Emerging studies are showing that suspension poses challenges, not just at the individual-level, but the school-level. In a longitudinal study by Perry and Morris (2014), the researchers examined the effect of suspension on academic achievement, specifically for reading and math achievement. They found that higher suspension rates within the school over time had a negative impact even on students who

were never suspended. They show that this effect was strongest within schools with high levels of suspension and schools with low level of violence.

Suspension also increases the likelihood of justice intervention, ranging from juvenile justice intervention (Fabelo et al., 2011) to arrests (Mowen and Brent 2016; Rosenbaum, 2020) and incarceration (Shollenberger 2015; Wolf and Kupchik 2017). Emerging research is beginning to show how school suspension increases the racial gap with arrests (e.g., Barnes & Motz, 2018). Welch et al., (2022) employed a multilevel structural equation model to explore whether the Black and Latino disparities within criminal justice arrests and incarcerations are partly explained by being suspended or expelled in youth. The researchers found Black individuals had a higher likelihood of exclusionary discipline (suspension and expulsion) and criminal intervention (arrests and incarcerations) than their White counterparts.

### **Policies and Programs Influencing Suspension**

Extensive research has attributed the increase in school suspension (Kang-Brown et al., 2013) to zero-tolerance policies. As reported by the U.S. Department of Education's Office of Civil Rights, there has been a decline in expulsion under the zero-tolerance policy in recent years by 13% in comparison to the 2015-2016 academic year (2018). However, according to the same report there was 7% increase in expulsions that continued to provide educational services and 12% increase in referrals to law enforcement (US Department of education Office of Civil Rights, 2018). Therefore, further exploration is needed of adequate policies and programs to reduce suspension.

There have been schoolwide interventions that have been used to mitigate suspensions such as Positive Behavior Intervention and Supports (Baule, 2020; Gage et al., 2018) and restorative justice (Song & Swearer, 2016). Gregory and colleagues (2018) employed a

multilevel logistic regression to explore discipline records and its association with equity and receiving out-of-school suspension. The authors found students who participated in restorative interventions had reduced odds of out of school suspension. Interestingly, restorative interventions only marginally narrowed the out of school suspension rates between Black and White students; therefore, per the authors, restorative interventions may not extensively reduce racial inequity for out of school suspensions. Furthermore, while restorative interventions have shown to reduce suspension, little is known about how such solutions would work with special education students. Therefore, additional solutions are needed to explore the reduction of suspension, especially for those in special education.

### ***Parent Involvement***

Policies have highlighted the importance of reducing the suspension rates within special education as well as the need for increased parent involvement (Individuals with Disabilities Education Act, 2004). Though there is limited evidence regarding the relationship between parental involvement and suspension, prior studies have shown how increased parental academic involvement has a negative relationship with problem behaviors (McCormick et al., 2013). El Nokali et al., (2010) conducted hierarchical linear modeling to examine children's trajectories of academic and social development. The authors utilized a parent involvement variable that was reported by the teacher and found that perceived parental involvement improves social skills and predicts reduction in student problem behaviors. Despite parental involvement serving as a mediator of discipline problems in special education it has not received much attention (McClowry et al., 2013). Frazier (1997) found a significant inverse correlation between parent involvement and student suspension—as parent involvement increased, student suspension decreased (as cited in Trotman, 2001). Despite these findings, there has been challenges with

involving parents in urban settings (Frazier, 1997 as cited in Trotman, 2001; Watson & Bogotch, 2015). Current research suggests that parent academic involvement will reduce the likelihood of suspension (Bartz et al., 2017), but it is unknown if this is applicable to mothers with children in special education.

Research has also shown an association between parent involvement and employment (Genadek & 2017; Kim et al., 2022; White & Maniam, 2020). However, as alternative work arrangements other than the standard 8-hour day shift Monday through Friday are becoming increasingly common in the United States (De Stefano et al., 2019), these employment characteristics show varied associations with parent involvement. Kim et al. (2022) found mothers working a standard schedule had lower levels of school-based involvement than those working a nonstandard schedule (working hours outside of a standard schedule). These results may be due to specific conditions within nonstandard employment that may offer flexibility (Kim et al., 2022) as flexible work schedules are helpful with parent academic involvement (Haley-Lock & Posey-Maddox, 2016; Turney & Kao, 2009; Murray et al., 2019). The following excerpt derived from a mother within Yoder & Lopez (2013) qualitative study that explored parents' perspective on academic involvement: "I am a single parent, well divorced. And umm I absolutely have to work. My schedule is during the week, while my kids are at school. So, I don't have that extra time to go you know to school parties or things like that" (Yoder & Lopez, 2013, pg. 425). This passage highlights that not all parents have the option to not work, furthermore, that school-based involvement may take place during standard working hours.

Due to these findings, nonstandard employment may allow for more parent academic involvement. However, new findings (Wang, 2023) suggest that only specific nonstandard employment allows for such flexibility, which may be linked to the mother's sociodemographic

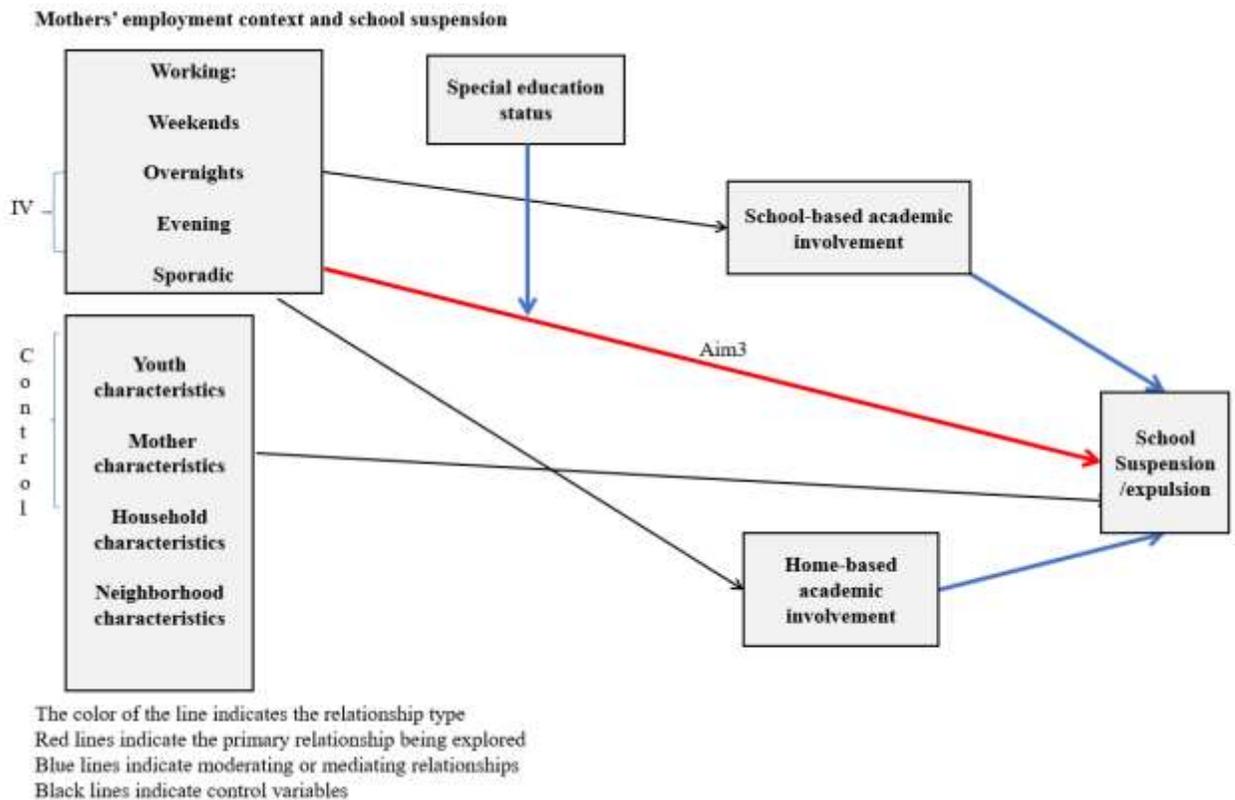
status (e.g., education level). As a result, working regular nonstandard employment may still place children whose mother holds less than a high school education at a disadvantage compared to children whose mothers work nonstandard work scheduled with higher education (Wang, 2023). For example, nonstandard employment characteristics, such as working weekends, has been shown to decrease parent's academic involvement at home and school (Kim et al., 2022). Interestingly, parents and school personnel suggested school-based activities being held on weekends so parents who worked could increase school-based involvement (Baker et al., 2016). This study examined maternal employment characteristics and child suspension, while exploring if maternal academic involvement and special education status affect this relationship.

### **Gaps in Research**

Despite what we know regarding maternal involvement in academic achievement, little is known if academic involvement can serve as a protective factor. Therefore, this study asks the question: "Does maternal academic involvement in their children's education affect school suspension of their children?"

As shown in Figure 4.1, this study hypothesizes: maternal academic involvement in their children's education will serve as a protective factor against child suspension and expulsion.

Figure 4.1



## Research Questions and Hypotheses

As such, I tested five research questions and related hypotheses in this paper:

Q1. *What is the association between maternal nonstandard employment and child suspension or expulsion from school?*

H5a. Mothers who work weekends children will have an increased likelihood of school suspension.

H5b. Mothers who work evenings children will have an increased likelihood of school suspension.

H5c. Mothers who work overnights children will have an increased likelihood of school suspension.

H5d. Mothers who work sporadic schedules children will have a decreased likelihood of school suspension.

*Q2. Does maternal academic involvement serve as a mediator between maternal nonstandard employment and school suspension?*

H6. Home or school-based maternal academic involvement will serve as a mediator between maternal nonstandard employment and school suspension.

*Q3. Does having a child with special education status moderate this relationship?*

H7a. The relationship between working weekends and suspension/expulsion will vary by whether the child is in special education

H7b. The relationship between working evenings schedules and suspension/expulsion will vary by whether the child is in special education

H7c. The relationship between working overnight schedules and suspension/expulsion will vary by whether the child is in special education

H7d. The relationship between sporadic work schedules and suspension/expulsion will vary by whether the child is in special education

### **Theoretical Frameworks Guiding this Paper**

Two social science theories disability critical race theory and ecological systems theory—inform this study.

#### **Disability Critical Race Theory**

An important theory helpful to understanding the association between parental academic involvement and school suspension or expulsion is disability critical race theory, first proposed by professors Subini Ancy Annamma, David Connor & Beth Ferri (Annamma et al., 2013). The authors extended the work of critical race theory and disability studies by acknowledging race and disability as interconnected social paradigms rooted in historical and systematic oppression and inequity within the education system (Annamma et al., 2013). The theory focuses on how perceptions of race can influence how one's ability to think, learn, and behave is conceptualized, assessed, and labeled (Annamma et al., 2020). The author notes how such evaluations influence discipline and consequences for the individual. This theory will guide this dissertation study as

Black students in special education have been suspended at a disproportionate rate than their counterparts (Nishioka et al., 2019). Therefore, by implementing this framework, we will acknowledge how the perception of race (i.e., being a Black student) can influence how one's ability, or lack thereof, to behave appropriately will result in school suspension or expulsion. Since this study is taking a unique look at race and special education, this framework acknowledges the importance of showing the range of parental academic involvement with a child in special education, and not solely the perception of normative White ableism.

### **Ecological Systems Theory**

The second theory that was utilized to explore the hypotheses was the ecological systems theory. Ecological Systems Theory was developed in the 1970s by Urie Bronfenbrenner (Darling, 2007). The theory emphasizes the importance of observing individuals' behavior and development in the within interrelated context (e.g., their lives, environments, families, and surroundings) fosters individual development (Darling, 2007). These interrelated settings, environmental system, consists of five subsystems: 1) the microsystem, 2) the mesosystem, 3) the exosystem, 4) the chrono-system, and 5) the macrosystem (Darling, 2007). Each of the subsystems may impact an individuals' development and their behaviors within the contexts of their environment (Bronfenbrenner, 1993). Therefore, this theory was utilized to better understand how parents' academic involvement (mesosystem) may influence student's suspension (microsystem).

### **Methods**

I utilized the FFCWS dataset for this paper as well. This survey sampled nearly 5,000 children born to families that were not married in 20 large U.S. cities (Reichman et al., 2001). The dataset includes the interviews taken at birth with both mother and father for ages 1, 3, 5,

and 9 until the child is 15 years old, then the interviews solely include the child and the primary caretaker. I utilized data from Wave 6, when the child was 15 years old. I selected this data due to the range of measurements to define parent academic involvement and having a measure of special education and suspension. In addition, since the data oversampled unmarried families (Reichman et al., 2001), it consists of variables that may be important to single-parent households, a risk factor for suspension (Fadus et al., 2021).

### **Sampling**

The current study utilized Waves 6 (15 years old). The study sought to include data from Wave 5, when the focal child was 9 years old due to the data beginning to track suspension, however, there was not significant observations for maternal academic involvement. Furthermore, this dataset has individual, school, and community variables that allows for a contextual understanding of factors contributing to maternal academic involvement (n=3,146).

### **Measures**

Appendix A lists all items used to construct each of the variables in this study.

#### ***Dependent Variable***

*Youth suspension status:* Derived from Wave 6, a dummy variable will be created. If a child has ever been suspended in Wave 6 (coded as 1) or if the child has not been suspended (coded as 0). It was derived from mother's response to "Has youth **ever** been suspended or expelled" and coded as a binary variable (no= 0, yes=1).

#### ***Independent Variables***

*Maternal nonstandard employment:* Derived from Wave 6, four binary variables were created: works nonstandard hours (i.e., regularly works weekends, evenings (6pm—11pm), overnights (11pm—7am) and, different times each week). Mother were prompted to answer yes

or no to each nonstandard questions; yes =1 and no=0. Each variable excluded participants who never worked or who have not worked since the last survey.

### ***Moderating Variable***

*Child special education status:* Derived from Wave 6, a dummy variable was created: the child is in special education (coded as 1) or the child is not in special education (coded as 0).

### ***Mediating Variables***

*Home-based academic involvement:* A summed index measure of a mother's involvement in home-based academic involvement in 4 activities (checked homework completion, helped a child with homework, discussed current events, and discussed youth's day) in Waves 6 was created. Participating in no activities was coded as 0, one activity "sometimes" was coded as 1, and one activity "often" was coded as 2. This variable ranged from 0 to 8 and, the missing values for the dependent variables was 0.4% of the total observations therefore, a sensitivity analysis was not conducted.

*School-based academic involvement:* A summated measure of a mother's involvement in school-based activities at Wave 6 was created using self-reported data on a mother's response. The response was to: "not done this" (coded as 0), "done this once" (coded as 1) and, "done this more than once" (coded as 2) at 5 different school-based activities (e.g., open-house/back to school night, parent-teacher conference, parent-teacher organization, attended school events, and volunteered at school or served on committee.) They are then summed to create a continuous variable ranging from 0 to 10. This variable will range from 0 to 10, with 0 indicating that the mother did not participate in the child's school-based academics when the child was 15 years of age, and 10 indicating that the mother reported participating in all activities more than once.

### ***Control Variables***

**Table 4.1 Unweighted and Weighted Descriptive Statistics (n=3,146)**

<b>Variables</b>	<b>Unweighted</b>		<b>Weighted</b>	<b>Missing Sample</b>
	<i>N</i>	%	%	
<b>Categorical</b>				
<b>Suspension</b>				
School suspension	792	26.72	19.31	182
<b>Employment Characteristics</b>				
Working weekends	1,183	57.78	33.85	344
Working evenings	615	21.95	20.92	344
Working overnights	306	10.92	8.88	344
Working sporadic	771	27.52	23.92	344
<b>Interaction variable</b>				
Receiving special education	448	14.65	16.39	89
<b>Maternal Employment Characteristics</b>				
Worked in last week	2,221	70.94	73.81	15
Multiple job holding	442	15.89	14.45	365
<b>Mother's physical and mental health</b>				
Good health	2,599	82.85	86.66	9
Diagnosed with depression	562	17.90	15.44	7
<b>Mother's Race</b>				
White	666	21.22	37.87	8
Black	1,584	50.48	23.09	8
Hispanic	773	24.63	30.68	8
Other race/ ethnicity	115	3.66	8.36	8
<b>Mother's Education</b>				
Less than high school	557	17.82	14.63	21
High school or equiv.	570	18.24	18.58	21
Some college	1,389	44.45	35.18	21
Bachelor's or higher	609	19.49	31.60	21
<b>Adolescent Gender</b>				
Boy	1,612	51.27	57.10	2
<b>Adolescent Health</b>				
Good health	3,031	96.41	96.85	2
<b>Maternal Context</b>				
Married/ cohabitating	1,755	55.93	70.58	8
<b>Continuous</b>				
<b>Academic Involvement</b>				
School-based Index.	3,059	4.66(2.81)	4.75(2.76)	87
Home-based Index.	3,129	6.02(1.52)	5.97(1.55)	17
<b>Youth Behavior</b>				
Internalized behavior index	1,701	1.54(1.98)	1.53(2.07)	51
Externalized behavior index	1,936	1.52(1.99)	1.48(1.96)	11
<b>Maternal Context</b>				

Mother's age	3,144	40.77(6.06)	42.58(6.17)	2
Mother's income	3,144	6.04(6.41)	8.39(7.82)	2
<b>Household</b>				
Children in household	3,143	2.60(1.52)	2.44(1.34)	3
<b>Community</b>				
Neighborhood cohesion index	3,134	20.94(3.62)	21.26(3.81)	12

The control variables listed in Table 4.1, which included mother, youth, household, and neighborhood characteristics, also served as the control variables in this paper.

### **Data Analysis Strategies and Diagnostic Tests**

First, I conducted a descriptive analysis of all variables from 6<sup>th</sup> Wave (see table 4.1). Next, using path analysis, I employed five regression models to answer the research questions. In the first model, suspension was regressed on working weekends, sporadically, overnight and evenings. In the second model, I added the mediating variables--school and home-based academic involvement to Model 1. In Model 3a this study controlled for all the confounding variables, by adding them to Model 2. Finally, the study utilized two additional models (Model 4a and 5a) to understand the moderating effects of youths' special education status using multigroup analysis. The sample in Model 4a includes only the households with no children in special education status and the sample for Model 5a includes only those households with children in special education status.

### **Results**

The unweighted and weighted descriptive statistics are shown in Table 4.1. The weighted statistics show that nearly one in five (19.31%) children in this sample had been suspended at some point during their schooling.

Path analysis of suspension and nonstandard employment characteristics was conducted, employing a total of seven models (see Table 4.2). In the first model (Model 1), suspension was regressed on working weekends, sporadically, overnight and evenings (n=2,660). The regression of suspension on working weekends was statistically significant (OR = 1.39, z = 3.25, p = .001, 95% CI [.13, .52]). Compared to mothers who do not work weekends, mothers who do work weekends had children who had 39% higher odds of being suspended. Working sporadically, overnight or evenings did not show any statistical significance.

In the second model (Model 2), suspension was regressed on working weekends, sporadically, overnight and evenings while being mediated by school and home-based academic involvement (n=2,801). The direct effect of working weekends on suspension maintained statistical significance (OR: 1.37, z:3.08, p<.01, 95% CI [.11, .51]). Compared to mothers who do not work weekends, mother who do work weekends had children who had 37% higher odds of being suspended, while controlling for the covariates in the model.

**Table 4.2.** Path analysis examining maternal suspension and nonstandard employment

	Model 1: OR (SE) (n=2,660)	Model 2: OR (SE) (n=2,801)	Model 3a: OR (SE) (n=2,801)	Model 4a: (not in special education only) OR (SE) (n=2,349)	Model 5a: (in special education only) OR (SE) (n=387)
<b>Independent Variable</b>					
Weekends	1.39(.14)***	1.37(.14)**	1.04(.12)	1.02(.13)	1.04(.31)
Evenings	1.04(.12)	1.05(.13)	1.04(.14)	1.07(.16)	.83(.27)
Overnights	1.11(.16)	1.08(.16)	.97(.16)	.93(.17)	1.26(.53)
Sporadic	1.03(.11)	1.03(.12)	.97(.12)	1.02(.14)	.86(.26)
<b>Mediators</b>					
School-based		.995(.167)	1.01(.02)	1.01(.02)	1.01(.05)
Home-based		.976(.030)	.99(.03)	1.02(.04)	.92(.09)
<b>Interaction</b>					
Special ed. (y=1, n=0)			1.34(.19)*	----	----
<b>Maternal Context</b>					
Mother's age			.98(.01)	.99(.01)	.96(.03)
Mother's income			.96(.01)**	.96(.01)**	.96(.04)
Employed (y=1, n=0)			.85(.11)	.79(.11)	1.12(.36)
Multiple job holding			1.02(.14)	1.02(.15)	.92(.33)
Married/ Cohabiting			1.09(.12)	1.11(.14)	1.06(.30)
<b>Mother's Race</b>					

Black	2.75(.45)***	3.08(.56)***	1.95(.80)
Hispanic	1.38(.25)	1.47(.30)	1.05(.48)
Other race/ ethnicity	1.13(.38)	.94(.37)	3.21(2.83)
<b>Education</b>			
High school or equiv.	.96(.16)	.97(.18)	.96(.42)
Some college	.81(.12)	.76(.12)	1.14(.45)
Bachelor's or higher	.51(.11)***	.42(.10)***	1.17(.66)
<b>Health</b>			
Diagnosed with Depression	1.40(.19)**	1.22(.18)	2.27(.71)**
Poor Health (y=1, n=0)	.87(.13)	.80(.14)	1.27(.42)
<b>Adolescent Context</b>			
Girl	.55(.06)***	.54(.06)***	.58(.17)
<b>Adolescent Health</b>			
Good health	1.49(.44)	1.53(.56)	1.00(5.0)
<b>Youth Behavior</b>			
Internalized behavior	.90(.03)***	.92(.03)*	.87(.06)*
Externalized behavior	1.41(.04)***	1.51(.06)***	1.21(.07)***
<b>External Context</b>			
Children in household	.99(.03)	.98(.04)	1.00(.08)
Neighborhood cohesion	1.01(.01)	1.01(.02)	.99(.04)
	<b>Model 3b:</b>	<b>Model 4b:</b>	<b>Model 5b:</b>
	<b>b (SE)</b>	<b>b (SE)</b>	<b>b (SE)</b>
<b>Mediation</b>			
School-based			
Weekends	-.21(.12)	-.23(.13)	-.18(.33)
Evenings	-.09(.15)	.01(.16)	-.61(.36)
Overnights	.08(.18)	.03(.20)	.38(.47)
Sporadic	.26(.14)	.24(.15)	.21(.34)
Home-based			
Weekends	-.17(.07)**	-.15(.07)*	-.31(.20)
Evenings	-.10(.08)	-.04(.09)	-.45(.22)*
Overnights	.16(.10)	.07(.11)	.72(.29)**
Sporadic	.13(.07)	.05(.08)	.42(.21)*

\*p < .05; \*\*p < .01; \*\*\* p < .001; OR=odds ratio; SE= standard error

In the third model (Model 3a), suspension was regressed on working weekends, sporadically, overnight and evenings while being mediated by school and home-based academic involvement and controlling for confounding variables (n=2,801). The path of nonstandard employment characteristics on suspension was not statistically significant.

Mothers who had a child in special education had 34% higher odds of being suspended than mothers who did not have a child in special education (OR=1.34, z=2.00, p<.05, 95% CI [1.01, 1.77]). Compared to boys, girls had 45% lower odds of being suspended (OR= .55, z=

-5.79,  $p < .001$ , 95% CI [.45, .68]). As the count of youth internalized behaviors increased, the odds of suspension decreased (OR= .90,  $z = -3.25$ ,  $p = .001$ , 95% CI [.85, .96]). As the count of youth externalized behaviors increased, the odd of suspension increased (OR= 1.41,  $z = 11.00$ ,  $p < .001$ , 95% CI [1.33, 1.50]). Children of Black mothers had more than 2 times greater odds of being suspended than children from White mothers (OR= 2.75,  $z = 6.20$ ,  $p < .001$ , 95% CI [2.00, 3.78]). Compared to children with less than a high school education, children of mothers with a college degree had 49% lower odds of being suspended (OR= .51,  $z = -3.27$ ,  $p = .001$ , 95% CI [.34, .76]). Compared to children of mothers who are not depressed, children of mothers who are depressed have 40% higher odds of being suspended (OR=1.40,  $z = 2.54$ ,  $p < .01$ , 95% CI [1.08, 1.81]). A 10,000 increase in mother's income was associated with a 4% lower odds of suspension (OR= .96,  $z = -3.07$ ,  $p < .01$ , 95% CI [.93, .98]).

There were no statistically significant relationships between nonstandard employment characteristics on school-based academic involvement (Model 5b), however, working sporadically was trending towards significance ( $b = .26$ ,  $z = 1.90$ ,  $p = .057$ , 95% CI [-.01, .53]). On average, mothers who work weekends had home-based academic scores that were .17 points lower than mothers who do not work weekends, while controlling for the covariates in the model ( $b = -.17$ ,  $z = -2.55$ ,  $p < .01$ , 95% CI [-.30, -.04]). There were no other statistically significant associations between nonstandard employment characteristics on home-based academic involvement. The indirect effect of nonstandard employment characteristics on suspension through school-based and home-based academic involvement were not significant indicating no evidence of mediation through these factors.

In the fourth model, suspension was regressed on maternal nonstandard employment characteristics while being moderated by youth's special education status and mediated by

school and home-based academic involvement and controlling for confounding variables.

Moderation was tested by multigroup analysis, therefore, a separate model for children not in special education (Table 3, Model 4b) and children in special education (Table 3, Model 5b) were reported.

In Table 4.2, Model 4a, suspension for students not in special education was regressed on working weekends, sporadically, overnight and evenings while being mediated by school and home-based academic involvement and controlling for confounding variables ( $n=2,349$ ). The path of nonstandard employment characteristics of suspension on youth not in special education had no statistical significance.

Compared to boys, girls had a 46% lower odds of being suspended ( $OR=.54$ ,  $z=-5.52$ ,  $p<.001$ , 95% CI [.43, .67]). A 1 unit increase of internalized behaviors increased the odds of suspension by 8% ( $OR=.92$ ,  $z= -2.24$ ,  $p<.05$ , 95% CI [.86, .99]). A 1 unit increase of externalized behaviors, increased the odds of suspension by 51% ( $OR=1.51$ ,  $z= 10.98$ ,  $p<.001$ , 95% CI [1.41, 1.63]). On average, children of Black mothers had over three times greater odds of being suspended than children from White mothers ( $OR=3.08$ ,  $z= 6.16$ ,  $p<.001$ , 95% CI [2.15, 4.41]). Compared to children with mother's less than a high school education, mothers with a college degree had children with 58% lower odds of being suspended ( $OR=.42$ ,  $z= -3.75$ ,  $p<.001$ , 95% CI [.27, .66]). A 10,000 increase in mother's income was associated with a 4% decrease in odds of suspension ( $OR= .96$ ,  $z= -2.78$ ,  $p=.004$ , 95% CI [.93, .99]).

In Model 4b, there was no statistical significance of nonstandard employment characteristics on school-based academic involvement. Mothers who work weekends had home-based academic scores that were .15 points lower than mothers who do not work weekends, while controlling for the covariates in the model ( $b= -.15$ ,  $z= -2.17$ ,  $p< .05$ , 95% CI [-.29, -.02]).

There were no other statistically significant associations between nonstandard employment characteristics on home-based academic involvement. The indirect effect of nonstandard employment characteristics on suspension through school-based and home-based academic involvement were not significant indicating lack of mediation.

In Table 4.2, Model 5a, suspension for students in special education was regressed on working weekends, sporadically, overnight and evenings while being mediated by school and home-based academic involvement and controlling for confounding variables (n=387). The path of nonstandard employment characteristics on suspension of youth in special education had no statistical significance. A unit increase in youth's internalized behaviors decreased suspension by 12% (OR= .88;  $z = -2.09$ ,  $p < .05$ , 95% CI [.76, .99]). Similarly, a unit increase in the youth's externalized behaviors is associated with a 21 % increase in suspension (OR= 1.21,  $z = 3.26$ ,  $p = .001$ , 95% CI [1.08, 1.35]). Compared to children whose mothers who are not depressed, children whose mothers who are depressed are 34.4% higher odds of being suspended (OR= 2.26,  $z = 2.60$ ,  $p < .01$ , 95% CI [1.22, 4.20]).

In Model 5b, there was no statistical significance of nonstandard employment characteristics on school-based academic involvement. There was a negative relationship between working evenings and maternal home-based involvement ( $b = -.45$ ,  $z = -2.03$ ,  $p < .05$ , 95% CI [-.88, -.02]). There was a positive relationship between working overnights and maternal home-based involvement ( $b = .72$ ,  $z = 2.47$ ,  $p < .01$ , 95% CI [.15, 1.29]). There was a positive relationship between working sporadically and maternal home-based involvement ( $b = .42$ ,  $z = 2.02$ ,  $p < .05$ , 95% CI [.01, .83]). Mothers working weekends was not statistically significant. The indirect effect of nonstandard employment characteristics on suspension through school-based

and home-based academic involvement were not significant indicating no evidence of mediation effect.

## **Discussion**

This study utilized path analysis to investigate the association between maternal nonstandard employment characteristics and youth suspension while considering the mediating role of maternal school-based and home-based academic involvement while special education acted as a moderator.

Table 4.2, Model 1: The first path analysis model showed the relationship between maternal nonstandard employment characteristics, working weekends, evenings, overnights, and sporadically and youth suspension. Mothers who worked weekends had children with 39% higher odds of being suspended compared to mothers who did not work weekends. These findings parallel prior research (e.g., Arlinghaus et al., 2019) showing the association between working weekends and risky behaviors. Greubel et al., (2016) examined the risks of working at unusual times, such as evenings and weekends on work–life balance, work related health complaints, and occupational accidents. The findings showed there was an association between working weekends and poor work–life balance. The researchers went on to report working weekends may pose considerable risks to social participation and showed structurally consistent effects. In the current study, mothers working weekends may provide less time for the family to participate in social outings that may be typically considered “weekend activities.” Due to such time constraint, children may have increased time to engage in risky behaviors that may lead to suspension.

Table 4.2, Model 2: In the second model, which included mediating variables of maternal academic involvement in the school and home, the direct effect between mother's working on the weekend and youth suspension remained statistically significant. Even after factoring in maternal academic involvement, children of mothers who worked weekends still had 37% higher odds of being suspended than children of mothers who did not work weekends. Furthermore, the results show there was a negative association between weekend employment on home-based academic involvement. There may be several reasons for these findings, but one reason may be the weekends coinciding with heightened times with family and social interaction, therefore, working weekends may reduce the needed time to bond.

Table 4.2, Model 3b: In the third model, school-based and home-based academic involvement served as mediators while controlling for confounding variables. In this model, nonstandard employment characteristics, including working weekends was not associated with child suspension rates. This may be due to several reasons, one being one of the cofounding variables, such as mother's income directing the relationship between working weekends and school suspension. Though nonstandard employment characteristics was not statistically significant, other variables, such as special education status, gender, internalized and externalized behaviors, maternal characteristics emerged as key factors in predicting child suspension.

Consistent with literature, this study found girls had lower odds of being suspended compared to boys. There may be several reasons for such findings, such as the display of externalized behaviors. Policies such as the zero-tolerance policy have explicit behaviors that may be deemed to be more externalized behaviors. Prior studies (e.g., Gong et al., 2023) have indicated boys may exhibit more externalized behaviors than girls, this may explain some reason

for these findings, but not all of it. The findings also showed increased internalized behaviors is associated with an increase of the odds of suspension, and prior research (e.g., Gong et al., 2023) has acknowledged has shown that girl exhibit more internalized behaviors than boys. Therefore, the reasoning for boys having a higher odd of suspension is more contextual than solely the behaviors girls and boys are exhibiting, and may be rooted in more biases of the school personnel. Markowitz et al (2023) explored the comments teachers write when sending students to the office for disciplinary infractions. The researchers found differences in how teachers attending to boys wrote about them in comparison to those attending to girls. The findings showed, when attending to boys' teachers wrote more negative affect and impersonal pronouns in their comments to the office in comparison to comments written about girls. The researchers acknowledged this difference as a means of understanding bias within written language.

As expected, the findings went on to show the role maternal depression has on suspension. Compared to children with mother's who were not diagnosed as depressed, children of mother's who were diagnosed as depressed had higher odds of being suspended. There may be several reasons for this outcome, one being the mother's depression impacting their communication with the teacher as well as the youth. Studies have shown (Zulauf-McCurdy & Zinsser, 2021), improved parent-teacher communication can decrease the odds of child suspension. Maternal depression may pose barriers of ongoing active engagement between the mother and the teacher.

Similar to prior research, the findings showed children of Black mothers had more than 2 times greater odds of being suspended than children of White mothers. The literature has attempted to provide insight such as teacher perception (Baker, 2019; Zulauf-McCurdy & Zinsser, 2021), implicit bias (Baker, 2019; Chin et al., 2020), zero-tolerance policies (Huang &

Cornell, 2021; Kyere et al., 2020). These factors suggest Black students may have less opportunities to receive verbal warnings than their White counterparts which result in more suspensions (Wegmann & Smith, 2019).

There were several protective factors within the study such as mother's education and income. As expected, mothers with higher education and increased income severed as protective factors for youth suspension.

Though nonstandard employment characteristics did not directly impact academic involvement, there was a significant negative association between working weekends and home-based academic involvement. There may be several reasons for this outcome, but one being since the mother has to work weekends, the weekdays may provide the opportunity to complete other tasks such grocery shopping. Working the weekend puts the mother-child interaction dynamics at odd ends since, the times in which the mother may be home, the youth is at school. There were no other statistically significant associations between nonstandard employment characteristics on home-based academic involvement.

In table 4.2, Model 4, suspension was regressed on working weekends, sporadically, overnight and evenings while mediated by school and home-based academic involvement and moderated by special education status while controlling for confounding variables. The findings, are presented in two models for children not in special education (table 4.2, Model 4) and those in special education (table 4.2, Model 5a). There was statistical difference between Model 4a and Model 5a, therefore the similarities and distinctions will be discussed simultaneously.

In table 4.2 Model 4a and 5a, focusing on students who were not in special education and in special education, none of the maternal nonstandard characteristics were associated with child

suspension rates. There may be several reasons for the findings, one may be due to the quality of parent-youth engagement. Mothers with a high-quality relationship with youth may not be reliant on a work schedule. Another reason is this model did not control for school characteristics, such as school's that engage in restorative justice, have after school programs, have weekend school events, etc. Such characteristics may diminish the association between maternal work schedule and school suspension. Therefore, maternal nonstandard characteristics may not present challenges.

In table 4.2 Model 4a and 5a, youth displaying internal and external behaviors were both significant. These findings suggest that youth behavior is the primary driver for suspension within the model. Furthermore, the findings suggest youth behavior is the primary association to school suspension across educational settings. The positive relationship between school suspension and youth externalized behaviors across educational settings is an indicator of shared school responses, policy enactment, and a lack of resources within education.

Youth's gender was significant in the group not in special education (table 4.2, Model 4a). but not for youth in special education (table 4.2, Model 5a). Consistent with prior literature, girls have lower odds of being suspended compared to boys. As previously stated, there may be an array of reasons why boys are suspended at a high rate then girls, one being teacher bias (Goff et al., 2014; Lindsay & Hart, 2017). Gilliam et al., 2016 examined implicit bias among preschool teachers, and found boys in general, were endorsed as requiring the most attention by 76% of early education staff when expecting challenging behaviors from students. The authors noted this pose male students at greater risk for exclusionary discipline than their female counterparts. Prior research has noted how boys may externalize behaviors more than girls (e.g., Patwardhan et al., 2021), while girls internalize behaviors more than boys may be another reason why some

administrations are more conditioned to suspend boys. These findings suggest, in smaller sample sizes, such as the youth in special education group (table 4.2., Model 5a) gender may not been significant due to the strength of youth externalizing and internalizing behaviors. In both models, (Table 4.2, Model 4a and 5a) youth internalizing behaviors had a negative relationship with school suspension, but gender was not significant in Model 5a, perhaps due to core reason of suspension being to youth behavior instead of gender.

Mothers' demographics such as being Black, income, and education status was significant in the group not in special education (Table 4.2, Model 4a) but not for youth in special education (Table 4.2, Model 5a). This study attributes these findings due to the sample size of the youth in special education (n=387). Consistent with each model throughout the study, these covariates have been significant. Therefore, one reasoning that these demographics were not significant in the special education group (Table 4.2, Model 5a) was it was a smaller sample that reduced the statistical power of the study. An alternative reason may be due to policy protection of youth in special education. IDEA requires students to receive adequate support to receive an appropriate education, this law may serve as protection to the identified covariates, making the youth's externalized behaviors the primary indicator of suspension within the model.

Mothers' income was significant in the group not in special education (Table 4.2, Model 4a) but not for youth in special education (Table 4.2, Model 5a). Higher income has a negative relationship with school suspension for several reasons. Youth from higher economic status typically have more access to more resources and services that can support in their academic adjustment. To propose an alternative response that accepts the findings is not due to sample size, policy protection of youth in special education may account for the findings. IDEA requires students to receive a free and appropriate public education, this law may serve as protection to

families across economic status to ensure income is not a factor in youth receiving adequate services.

Similarly, mothers' education was significant in the group not in special education (Table 4.2, Model 4a) but not for youth in special education (Table 4.2, Model 5a). Access to higher education leads to more income. Therefore, similar to higher economics, mothers with higher education are able to aid in providing needed resources and services. To propose an alternative response that accepts the findings is not due to sample size, policy protection of youth in special education may account for the difference in findings between special education status. IDEA requires students in special education to hold annual meetings, IEPs to meet the educational need of the youth. During the IEP meetings, school personnel are present with a range of insight of applicable resources and services for the youth, therefore, mothers' education may have a stronger association when the youth is not in special education.

Being a Black mother was significant in the group not in special education (Table 4.2, Model 4a). but not for youth in special education (Table 4.2, Model 5a). When compared to White mothers, Black mothers' children experiences higher odds of suspension. Studies have found Black youth, as young as preschool age having experienced implicit bias from their teachers (Gilliam et al., 2016). These studies have illustrated how Black youth are perceived as less innocent and older than their chronological age (Goff et al., 2014). Therefore, the findings in Table 4.2, Model 4a are consistent with literature as administration bias towards Black children may lead to school suspension. There can be several reasons why Black mothers and youth school suspension was not significant in the special education group (Table 4.2, Models 4a and 5a). One being due to the sample size of the special education group, therefore, the p-value factored in the sample size of the model. When looking at the coefficient, Black mothers OR is

nearly at 2 demonstrating there is meaning within these variables. Therefore, future research should consider increasing the sample size of special education.

Being a mother with depression was significant in the group for youth in special education (Table 4.2, Model 5a), but not for youth not in special education (Table 4.2, Model 4a). There are several reasons for these findings. One reason may be children in special education have greater sensitivity to environmental stressors, including maternal depression. An additional reason is, youth in special education may need additional home and school support, and maternal depression is impairing the mother's ability to take necessary action.

The mediation effects of school-based and home-based academic involvement were not statistically significant, therefore, there is no visual model. These findings may be due to the confounding variables within the model. Furthermore, there was no differences between not having a child in special education (Model 4a) and having a child in special education (Model 5a) which is an indicator of no interaction effect.

### **Limitations**

This study had several limitations. First, the dataset focused on youth born in large cities, which does not account for youth born in more rural areas. Studies have shown (e.g., Petrin et al., 2014) youth from rural areas face poorer educational outcomes compared to those born in metropolitan school. Therefore, a future study using a nationally representative dataset would support generalizability. However, to my knowledge, this dataset is the only available dataset that has youth special education status, suspension, and maternal employment context. Second, the measurement for suspension/ expulsion in wave 6<sup>th</sup> does not quantify if the suspension/ expulsion occurred at the age of 15 or a prior year because the question asks, "have you ever been suspended/ expelled." This will pose challenges to the interpretations when controlling for

covariates, as the wording doesn't guarantee that the IV and DV occurred simultaneously. Furthermore, when reviewing the moderator variable, special education, the sample size for special education was smaller in comparison to those not in special education. Such sample size distinction may skew the findings. Lastly, the study is not a cause-effect study; therefore, the findings cannot be generalized.

### **Implications**

#### **Policy Implications:**

Future school policies should consider allotting additional resources to address the disproportionate suspensions based on race and sex, similarly as identified in the IEP. The IEP states that a portion of a school's funding will be allotted towards preventative services should a disproportionate number of students with a disability is suspended. This policy approach may be needed in relation to these sex and race based disproportionate suspensions. Furthermore, one-way policies can focus on dismantling discriminatory practices and promoting culturally sensitive disciplinary approaches is ensuring funding for a school social worker at each school. Finally, should an increase of school social workers be supplanted in the school a role and responsibility of school social worker may be to provide therapeutic support for parents diagnosed with mental health challenges. Furthermore, future policies should increase the accessibility to interventions such as student-level therapies such as behavioral, social-emotional learning, and cognitive behavioral as well as addressing the school climate (i.e., racism and ableism) to reduce school suspension (Mielke & Farrington, 2021).

#### **Research Implications:**

Future research may consider conducting a qualitative experiment. This could explore students' and parents' perspectives on disciplinary actions and nonstandard work schedules. Furthermore, future research may consider operationalizing maternal depression and exploring the concept with different forms of exclusionary discipline, especially for mothers who are impacted by racism and ableism. Prior studies (e.g., Cleary et al., 2024) detail how mothers of children with special needs may experience exacerbated mental health concerns due to child school suspension. Future studies may consider conducting a sensitivity analysis to explore if mothers who are impacted by racism and ableism mental health symptoms increases post child suspension. Finally, future research should consider additional employment characteristics such as negotiability of work schedule and hours, availability of after school programs, and access to extended family. This may inform future research to better understand factors that contribute to mothers selecting specific employment characteristics.

### **Social Work Practice Implications:**

These findings underscore the need for social workers to employ anti-racist and anti-ableist strategies in supporting families impacted by school suspension. Recognizing the disproportionate suspension rates among children of Black mothers and those in special education, social workers are called to advocate for systemic changes that address these disparities directly. This involves pushing for educational policies and practices that dismantle biases and barriers affecting these groups.

Social workers can lead initiatives to educate school staff on the effects of systemic racism and ableism, ensuring that disciplinary practices are fair and equitable. By fostering an environment that values diversity and inclusivity, social workers contribute to reducing the likelihood of suspensions for marginalized students. Furthermore, by advocating for flexible and

accessible educational support services, social workers can help families with nonstandard employment schedules access needed services.

## **Chapter 5: Discussion and Implications for theory, research, policy, and practice**

The principal objective of this dissertation study was to explore the association between maternal nonstandard employment and child school suspension, while determining the role maternal academic involvement and special education has on this relationship. In this Chapter, I will discuss the key findings from all three papers, study limitations, and their implications.

*First, maternal nonstandard employment had mixed effect on their academic involvement.* Throughout the study, maternal nonstandard employment characteristics, working weekends, evenings, overnights, and sporadic schedules were significant at different stages within the models. Specifically, mothers working sporadic schedules showed a positive relationship with school-based involvement, but there was no relationship between working sporadic schedules and home-based academic involvement. This association may be due to more sporadic schedules allowing for greater school participation, but such inconsistency in a schedule may disrupt the routine necessary for engaging in home-based involvement.

Conversely, mothers working weekends exhibited a negative relationship with home-based academic involvement, but not school-based involvement. This may be attributed to weekends typically being prime time for family interaction (as noted Craig & Brown, 2014), therefore, mothers prioritizing more family interactions than academic work within the home. However, the lack of impact on school-based involvement suggests that these weekend working mothers may still be able to engage in school activities during weekdays.

In Chapter 4, the initial finding of a negative relationship between mothers working weekends and youth suspension, which lost significance upon adding covariates, suggests that this correlation may be more complex. It implies that factors such as income status, which are likely to be different for mothers in nonstandard employment, play a crucial role. Mothers in

lower-income brackets, often working nonstandard hours, might initially appear to have a direct link to higher child suspension rates. However, when considering other covariates like educational background and access to resources, the direct impact of weekend work on child suspension becomes less pronounced. This highlights the importance of considering a broader range of socioeconomic factors when evaluating the impact of maternal employment on child educational outcomes.

*Second, youth behaviors correlated with all three outcome variables.* The positive relationship between youth externalized behaviors, maternal school-based and home-based academic involvement, and school suspension is an indicator of the complex dynamics at play in a child's educational and social development. Given these findings, practices within social work are necessary to address and mitigate the impact of externalized behaviors in youth. Firstly, school-based interventions, such as behavioral programs, may be instrumental. In a meta-analysis, Mielke & Farrington (2021) found student-level interventions such as behavioral, cognitive behavioral, social-emotional learning reduce school suspension. Ijaz et al., (2023) identified varying symptoms (internalizing and externalizing) student behaviors may lead to school suspension, therefore, by providing a range of school-based interventions students will be able to obtain student-centered interventions that meets their needs.

Furthermore, training for educators and school staff in recognizing and appropriately responding to externalized behaviors is vital. This training should include strategies for de-escalation, understanding the underlying causes of such behaviors, and fostering a supportive, rather than punitive, school environment. Mielke & Farrington (2021) found in positive behavioral supports and restorative practices that involve the families have been effective in reducing school suspension. In addition, though youth internalized behaviors lowered the odds

of suspension, mental health services are recommended to address underlining issues within the youth. The emphasis should be on preventative measures and positive reinforcement rather than solely on disciplinary actions.

*Third, the relationship between maternal income and child's education was multifaceted and the findings were mixed throughout the dissertation.* Mothers with higher income had a positive relationship with school-based involvement but a negative relationship with home-based academic involvement. This can be attributed to several factors. Higher income often correlates with greater access to resources and flexibility, allowing these mothers to participate more actively in school activities, such as attending parent-teacher meetings, volunteering, or contributing to school events. Their financial stability might also enable them to take time off work or adjust their schedules to engage in these activities. Conversely, the negative relationship with home-based academic involvement could be due to higher-income mothers having more demanding or time-intensive careers. Women continue to make less money than men (Carnevale et al., 2018) which may fuel their work in demanding industries. This could limit the time they have available to assist with homework or engage in other academic activities at home. Additionally, these mothers might be more likely to utilize external resources for academic support, such as tutors or after-school programs, reducing the necessity for direct home-based involvement.

Regarding the negative relationship between higher maternal income and child suspension, several factors could be at play. Higher-income families often have access to a broader range of educational resources and support systems, both inside and outside the school. These resources can include private tutoring, extracurricular activities, and mental health services, which can contribute to better academic performance and behavior in school.

Additionally, schools in higher-income areas may have more resources and potentially different disciplinary policies, which can result in lower suspension rates.

Furthermore, higher-income mothers might have more social capital and a greater ability to advocate for their children within the school system. They may be more knowledgeable about navigating school policies or more confident in communicating with school officials, which can influence how disciplinary matters are handled.

*Fourth, maternal education positively correlated with academic involvement and negatively correlated with youth school suspension.* Similar to prior research (e.g., Norris & van Hasselt, 2023) maternal education and academic involvement had a positive relationship while maternal education and youth school suspension had a negative relationship. These associations are likely influenced by several factors related to the educational attainment of the mothers. Firstly, higher education often equips individuals with better problem-solving skills, critical thinking, and a deeper understanding of child development and educational processes. Mothers with higher education levels are more likely to employ effective educational practices at home, provide better academic guidance, and have higher educational expectations for their children, all of which can contribute to improved academic and behavioral outcomes in school.

Additionally, mothers with higher education often have better access to educational resources and a stronger understanding of how to navigate the educational system. This can include advocating for their children's needs, effectively communicating with teachers and school administrators, and accessing support services when necessary. This level of involvement and advocacy can directly influence the likelihood of school suspension by addressing potential issues before they escalate to disciplinary actions.

Moreover, higher education is often correlated with a higher socioeconomic status, which can provide additional support structures such as tutoring, extracurricular activities, and a more conducive learning environment at home. This further bolsters the academic and behavioral standing of their children in school settings.

*Fifth, being in special education was significant throughout each model in the study.*

Having a child in special education increased maternal academic involvement within the school and home settings, however, this involvement was not impactful in reducing school suspension. These findings are an indicator of the nuanced challenges faced by youth in special education and the limitations of current approaches to parental involvement in mitigating school suspensions. Given this context, specific interventions, policies, and practices within social work are necessary to more effectively support these youth. Firstly, IEPs should be meticulously designed and regularly updated to meet each child's unique needs. This involves close collaboration between educators, parents, special education professionals, and the students themselves (Sanderson & Goldman, 2020).

Additionally, training for educators and school staff in understanding the diverse needs of special education students is crucial. This training should emphasize inclusive teaching strategies, understanding different learning disabilities and behavioral issues, strength-based approaches in schools, and effective communication with parents and caregivers.

There's also a need for more robust parent support systems. While parents of special education students are often highly involved, they may lack specific knowledge or resources to effectively support their child's education. Providing targeted parent education programs, support groups, and resources can empower these parents to be more effective in their involvement.

*Sixth, race of the mother mattered.* The study further brought attention to significant disparities Black mother's face in academic involvement and child suspension in comparison to White mothers. Black mothers, were shown to have higher academic involvement (school and home-based) than White mothers, however, their children continue to experience higher rates of suspension. The study's findings show maternal academic involvement was not associated with decreasing the likelihood of school suspension. This research brings forth the necessary discussion of racism that Black mother's experience of being manipulated into believing that with "hard work" equitable education access may be plausible for their children (Parada et al., 2023; Leath et al., 2020; Durand, 2011). Black communities have been plagued with the notion that they need to work "twice as hard," however, due to systemic racism Black children continue to experience disproportionate amount of suspension (Powell & Coles, 2021).

Finally, the insights provided by Disability Critical Race Theory (DisCrit) offer a valuable framework for understanding the association between maternal academic involvement and the higher odds of school suspension among both Black youth and those in special education. This theory, as articulated by Annamma et al., underscores the intersectionality of race and disability as overlapping spheres of social oppression and inequity within the education system. It posits that perceptions of race significantly influence how a student's abilities and behaviors are conceptualized, assessed, and consequently labeled within educational settings.

Applying this framework, it can be inferred that despite increased academic involvement by mothers of Black students and those in special education, these children still face higher odds of suspension. This is because the perceptions and biases surrounding race and disability can overshadow the positive impact of parental involvement. For Black students, racial stereotypes and implicit biases may lead to their behaviors being more readily interpreted as problematic or

disruptive, even when similar behaviors in non-Black students might be overlooked or treated more leniently. Consequently, despite their mothers' involvement in their academic lives, these students are still at a higher risk of being suspended due to systemic biases in how their behavior is perceived and disciplined.

Similarly, students in special education often contend with the stigmatization of their learning or behavioral disabilities. The DisCrit framework suggests that the intersection of disability with racial identities can exacerbate the misinterpretation or mislabeling of their behaviors. Educational systems and policies may not adequately accommodate their unique needs or might interpret their behaviors within a deficit-oriented lens. Therefore, even with active parental involvement, these students face a heightened risk of suspension due to systemic failures to appropriately understand and support their specific educational and behavioral needs.

In both cases, DisCrit highlights the need for educational systems to critically examine and reform how they perceive and address the behaviors of Black students and those with disabilities. Without addressing the underlying systemic biases and inequities, the efforts of parents, no matter how involved they are, may continue to be undermined by a system that disproportionately disciplines these groups of students. This calls for a comprehensive approach that not only involves parental engagement but also systemic changes in how schools understand and respond to the intersectionality of race and disability.

### **Study Limitations**

This dissertation is marked by several limitations. Firstly, the nonstandard employment measure fails to distinguish whether engaging in nonstandard work schedules is by the mother's choice or a requirement for the position. The absence of this distinction is crucial, as some

positions offer overtime options, allowing mothers to opt in rather than having a nonstandard schedule mandated by their position. Similarly, the measurement for multiple job holding lacks information on the duration of the mother's concurrent employment, overlooking potential differences between those with shorter versus extended periods of holding multiple jobs. The study sought to control for this by only focusing in the 6<sup>th</sup> wave. Additionally, there is limited information on other individuals, such as the father, grandparents, or older siblings, who may contribute to youth academic support. This missing information could offer clarity on the extent of the mother's academic involvement, for instance, with the father engaging in school-based academic support while the mother focuses on home-based involvement. The study sought to control for this by controlling for neighborhood cohesion. The presumption was if mothers had higher neighborhood cohesion than this may control for unspecified informal support systems within the mothers' community. Furthermore, the study's dataset focuses solely on youth born in large cities, neglecting those from more rural areas, which may impact the generalizability of findings. While the dataset is the only available one with information on youth special education status, suspension, and maternal employment context, a nationally representative dataset would enhance generalizability. Additionally, the study's measurement for suspension/expulsion lacks temporal specificity, creating challenges in interpreting results when controlling for covariates, as it does not guarantee simultaneous occurrence of the independent and dependent variables. Similarly, school-based academic involvement did not have a time frame, therefore, there is no guarantee of school-based involvement occurring simultaneously with other variable within the model. Furthermore, being employed was operationalized as "receiving a regular paycheck last week" which does not mean the inverse that those who did not receive a regular paycheck the

prior week are unemployed (i.e., may be on leave). Lastly, the study does not establish causal relationships, limiting the generalization of its findings.

### **Implications for Policy, Research, and Practice**

In spite of these limitations, this dissertation contributes to stronger understanding of the role income plays in the employment context. This dissertation study examines the determinants influencing the susceptibility to suspension or expulsion among students in special education. By addressing this matter, stakeholders, including families, professionals, and policymakers, can gain a more comprehensive understanding of factors either hindering or facilitating parental engagement in the academic sphere concerning students in special education. Furthermore, an examination of such engagement may elucidate its potential in averting instances of suspension and expulsion for students with special needs. Consequently, this research has the potential to pinpoint policies aimed at mitigating disparities within the educational system, allowing students in marginalized communities to reclaim their allocated instructional learning time.

### **Policy Implications**

Policy implications stemming from this work seek to increase parents access to flexible work schedules that may increase parent involvement within school and home settings. Despite the findings showing maternal academic involvement does not reduce school suspension, prior studies (e.g., Lerner & Grolnick, 2020) has shown it increases student achievement and supports their academic autonomy. Furthermore, increasing overall parent involvement has been consistently identified within the reauthorized Elementary and Secondary Education Act (Hodge & Welch, 2016) and the IDEA (IDEA, 2014) as mandatory for schools. Therefore, this study demonstrates the need for policies to explore more flexible work options to increase parent academic involvement, such as Fair Workweek legislature. In addition, this study calls to action

the expansion of paid family and medical leave (PFML) policies to include barriers to youth academic achievement as rationale for utilizing leave. Currently, 13 states and the District of Columbia offer PFML has enacted mandatory paid leave systems (Bipartisan Policy Center, (2024). PFML leave is primarily offered to employees in high-paying occupations, full-time workers, and workers in large companies (Donovan, 2020). PFML is generally used for more significant and disruptive needs that can require longer periods of time away from work (Donovan, 2020), therefore, the lack of academic achievement may not initially be seen as needing to be addressed within an extended time period. However, this study argues that the lack of academic achievement does occur over an extended period of time and suspension can be seen as a marker of this outcome. Therefore, by expanding the qualifications of PFML to include academic achievement, policies can engage in preventative measures since the lack of academic achievement has been associated with health complications (Lê-Scherban et al., 2014).

### **Research Implications**

Future research may consider exploring how mothers of color, specifically Black mothers and mothers in special education strategize to have increased academic involvement in comparison to mothers who are not marginalized based on race and ability. Educational policies such as, Elementary and Secondary Education Act and the IDEA, are concerned with increasing parental involvement (Hodge & Welch, 2016; IDEA, 2014), therefore, exploring the strategies implemented by mothers with increased academic involvement may better inform methods of increasing parent academic involvement.

Furthermore, future may consider examining the role ‘Grow Your Own’ (GYO) programs may address racism and ableism within academic settings. GYO teachers’ programs are being utilized to diversify and grow the teacher workforce due to the teacher shortages across

the United States as well as the lack of racial and linguistic diversity (Garcia, 2020). Future research may consider examining the implementation of these programs and school suspensions and, answering *if there is less likelihood of school suspension when GYO teachers' programs has been utilized at the school?* This research has the opportunity to inform future policies to increase funding for GYO programs throughout the country.

### **Social Work Practice Implications**

The recent findings highlight the critical role of social workers in forming collaborative partnerships within the schools. By utilizing evidence-based practices, such as the National Social Work Practice model social workers can implement needed resources and services that has been identified throughout the study by utilizing an ecological orientation and streamlined approach. Studies show (e.g., Mishra, 2020) that underrepresented students have to utilize different forms of resources within education settings to gain needed support. Therefore, social workers developing initiatives encourage interdisciplinary collaboration. Moreover, the necessity for social workers to deploy anti-racist and anti-ableist strategies was apparent within this study. In action, social workers may consider starting grassroots advocacy for GYO programs within local communities to ensure schools are reflective of their community. Furthermore, pathways for high school students are the most common type of GYO program (Garcia, 2020), therefore, social workers engaging in advocacy for students of color and those in special education to expand their opportunities by teaching within their community. GYO programs have the potential to provide needed funding, resources, and services that will aid in those selected to

become teachers (Garcia, 2020). Social work practice has an array of opportunities to support students at the micro and macro level of education.

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**Appendix A**

<b>Variable</b>	<b>Description</b>	<b>DV IV CV</b>
School-based academic involvement	<p>A continuous index measure of mother's involvement at school was derived from Wave 6. The school activities were coded as 0 for no interaction or coded as 1 for interaction. Combines answers from several variables.</p> <p>Wave 6: Five items asked, since the start of the school year, if the mother:</p> <ol style="list-style-type: none"> <li>1. Attended open house/back-to-school night</li> <li>2. Attended PTA/PTO meeting</li> <li>3. Attended parent-teacher conference</li> <li>4. Attended school or class event (whether child participated or not)</li> <li>5. Volunteered at school or served on school committee.</li> </ol> <p>In wave 6, the answer options were that the mother had: (1) done this once, (2) done this more than once, and (3) not done this.</p> <p>Respondents who answered "not done this" to <i>each</i> of the school-based activities were coded as 0, respondents who answered "done this once" was coded as 1, and respondents who answered "done this more than once" was coded as 2.</p> <p>A summated measure of a mother's involvement in school-based activities was created using the 5 activities recorded in the data that includes a mother's absence (coded as 0) or interaction (coded as 1 or 2) of these activities (e.g., open-house, parent-teacher conference, and other school events). Therefore, the range of interaction is from 0-10; 0 meaning mothers did not participate in any school activities in the 6<sup>th</sup> wave and 10 meaning they participated in all school activities more than once in the 6<sup>th</sup> wave.</p>	X
Home-based academic involvement	<p>A continuous measure of mother's involvement at home was derived from wave 6. The home activities were coded as 0 for no interaction, 1 for some interaction, and 2 for often interaction. Specifically, has the mother:</p> <ol style="list-style-type: none"> <li>1. Checked to make sure child had completed homework in the past month</li> </ol>	X

Variable	Description	DV IV CV
	2. Helped child with homework or school assignments in the past month 3. Talked about current events with youth in past month 4. Talked about youth's day with youth in past month	
	<p>A summated measure of a mother's involvement in home-based activities was created using 4 activities recorded in the data. Therefore, the range of interaction is from 0-8; 0 meaning mothers did not participate in any home activities in the 6<sup>th</sup> wave and 8 meaning they participated in all of the home-based activities more than once in the 6<sup>th</sup> wave.</p> <p>Respondents who answered "no" to <i>each</i> of the home-based activities were coded 0, while respondents who answered that they had participated in one activity was coded as 1, and more than once was coded as 2.</p>	
Youth suspension/ expulsion	A binary measure of youth ever being suspended derived from Wave 6. It was derived from mother's response to "Has youth been suspended or expelled" was derived from the 6th wave and coded as a binary variable (no= 0, yes=1).	X
Youth's special education status	A binary variable derived from mother's response to "Youth receives special education program services at school."	X
Mother's work in past week	A binary variable to determine if mother was employed derived from mother's response to "Did any regular work for pay in last week?" Did not work in past week= 0 and Worked in past week = 1.	X
Mothers' nonstandard work	Four binary variables (1 = yes, 0 = no) that indicate if the mother worked with the following schedules in their current or recent job were combined to create a single variable (non-standard work schedule=1; standard work schedule=0):	
Working weekends	Regularly works weekends	X
Working evenings	Evenings (6pm—11pm)	X
Working overnights	Overnights (11pm—7am)	X
Working sporadically	Different times each week	X

Variable	Description	DV IV CV
Mothers' multiple job holding	<p>A binary variable for holding a single job ("0") or multiple jobs ("1").</p> <p>Derived using two questions. First, mothers were asked, "Last week, did you do any regular work for pay?" Those who answered "Yes" were then asked a follow-up question: "Was there ever a time in the past twelve months that you worked more than one regular job at the same time?" Those who answered "No" were coded as single jobholders, and those who answered "Yes" were coded as having multiple jobs. (Additional information on the second job was limited.)</p>	X
Mother's health	<p>A binary variable that indicates if mothers has a serious health issue that limits the work they can do (1 = yes, 0 = no).</p> <p>In wave 6, the mother's health was drawn from the response to: "Have serious health problem that limits work." Answer options were "yes" and "no".</p> <p>The rationale for using the responses as indicators of poor health is to demonstrate potential limited range of physical mobility or medical severity that prior studies have not accounted for when discussing parent academic involvement.</p>	X
Youth's health	<p>Youth's health was reverse coded into a continuous variable. The mother was asked about their child's health, with five answer options that were reverse coded (i.e., 1 = poor, 2 = fair, 3 = good, 4 = very good, and 5 = excellent). Next a binary variable was created "good to excellent" (3 to 5) was coded as "good" and "poor to fair" (1 to 2) was coded as "not so good."</p>	X
Mother's race	<p>Mother's race was coded as a categorical variable White=1, Black=2, Hispanic=3, and other race/ethnicity=4).</p>	X
Mother's education level	<p>Mother's educational level was coded as a categorical variable, in which less than high school= 1, high school or equivalent=2, some college=3, Bachelor's degree or higher=4).</p>	X
Mother's age	<p>Mother's age was coded as a continuous variable (range: 30 to 63).</p>	X

Variable	Description	DV IV CV
Mother's income	<p>Mother's income was coded as a continuous variable (range: \$0 to \$999,999) in increments of \$10,000 until \$250,000 then \$250,000-999,999 was grouped together. Maternal income was reported in dollars but was recoded to ten thousand (such that 1 = \$10,000). This method is being utilized for interpretability as previous scholars have implemented (e.g., Blair et al., 2023).</p>	X
Mother's depression	<p>Mother's major depression was coded as a binary variable depressed=1 and not depressed=0. To assess for Major Depression, the researcher utilized the Composite International Diagnostic Interview Short Form (Kessler et al., 1998) to determine if the mother meets the liberal depression within the past year.</p>	X
Adolescent gender	<p>Adolescent's gender was coded as boy=0 and girl=1; derived from the baseline interview.</p>	X
Internalized youth behaviors	<p>To measure youth internalized behaviors an index score was constructed consisting of 5 three-level variables (0= not true, 1= sometimes true, and 2= often true that indicate mother's response to:</p> <ol style="list-style-type: none"> <li>1. "Youth is nervous, highstrung, or tense"</li> <li>2. "Youth is too fearful or anxious"</li> <li>3. "Youth clings to adults or too dependent"</li> <li>4. "Youth feels too guilty"</li> <li>5. "Youth has trouble sleeping"</li> </ol> <p>Each of the items had three answer options that differed slightly by wave but are directly comparable. In wave 6, the answer options were that the mother had: (1) not true, (2) sometimes true, and (3) often true.</p> <p>Respondents who answered "not true" to <i>each</i> of the internalized behaviors were coded as 0, while respondents who answered "somewhat or sometimes true," "very true or often true," "sometimes true," or "often true" internalized behavior was coded as 1.</p>	X

Variable	Description	DV IV CV
Externalized youth behaviors	<p>To measure youth externalized behaviors an index score was constructed consisting of 7 three-level variables (0= not true, 1= sometimes true, and 2= often true that indicate mother's response to:</p> <ol style="list-style-type: none"> <li>1. "Youth is cruel, bullies, or shows meanness to others"</li> <li>2. "Youth destroys things belonging to family or others"</li> <li>3. "Youth gets in many fights"</li> <li>4. "Youth physically attacks people"</li> <li>5. "Youth is stubborn, sullen, or irritable"</li> <li>6. "Youth has temper tantrums or a hot temper"</li> <li>7. "Youth threatens people"</li> </ol> <p>Each of the items had three answer options that differed slightly by wave but are directly comparable. In wave 6, the answer options were that the mother had: (1) not true, (2) sometimes true, and (3) often true.</p> <p>For each wave, respondents who answered "not true" to <i>each</i> of the externalized behaviors were coded as 0, while respondents who answered "somewhat or sometimes true," "very true or often true," "sometimes true," or "often true" externalized behavior was coded as 1.</p>	X
Number of children in the home	Number of children in the home was coded into a continuous variable (range: 1 to 16).	X
Relationship Status	<p>Mother's relationship status was mother's binary response to the following prompts of her relationship status: biological primary caregiver is married to biological parent, biological primary caregiver is married to new partner, biological primary caregiver is cohabitating with biological parent (unmarried), biological primary caregiver is cohabitating with new partner (unmarried). A binary variable score was constructed consisting of four binary variables (1 = yes, 0 = no) that indicate the mother's relationship status; married/cohabitating=yes and unmarried/not cohabitating was coded as "no."</p>	X

Variable	Description	DV IV CV
Neighborhood Cohesion	To measure neighborhood cohesion an index score was constructed consisting of nine binary variables (1 = yes, 0 = no) that indicate if the mother's perception of neighborhood cohesion:	X
Willing to help	Neighbor's willing to help was reverse coded into a binary variable agree=1 and disagree= 0. Mothers were asked, "People around here are willing to help their neighbors" and was provided the following options ranging from strongly agree to strongly disagree on a 4-point Likert scale. Strongly agree and somewhat agree was coded as agree and strongly disagree and somewhat disagree was coded as disagree.	
Close-knit	Close-knit neighbor was reverse coded into a binary variable agree=1 and disagree= 0. Mothers were asked, "This is a close-knit neighborhood" and was provided the following options ranging from strongly agree to strongly disagree on a 4-point Likert scale. Strongly agree and somewhat agree was coded as agree and strongly disagree and somewhat disagree was coded as disagree.	
Don't get along	Neighbors don't get along was coded into a binary variable agree=0 and disagree= 1. Mothers were asked, "People in this neighborhood generally don't get along with each other" and was provided the following options ranging from strongly agree to strongly disagree on a 4-point Likert scale. Strongly agree and somewhat agree was coded as agree and strongly disagree and somewhat disagree was coded as disagree.	
Don't share the same values	Neighbors don't share the same values was coded into a binary variable agree=0 and disagree= 1. Mothers were asked, "People in this neighborhood do not share the same values" and was provided the following options ranging from strongly agree to strongly disagree on a 4-point Likert scale. Strongly agree and somewhat agree was coded as agree and strongly disagree and somewhat disagree was coded as disagree.	
Neighbor involvement-skip school	Neighbor involvement-skip school was reverse coded into a binary variable likely=1 and unlikely= 0. Mothers were asked, "Neighbors would get involved if children skip school and hang out on street" and was provided the following options ranging from very likely to very unlikely on a 4-point Likert scale. Very likely and somewhat likely was coded as likely and very unlikely and somewhat unlikely was coded as unlikely.	

Variable	Description	DV IV CV
Neighbor involvement-graffiti	Neighbor involvement-graffiti was reverse coded into a binary variable likely=1 and unlikely= 0. Mothers were asked, “Neighbors would get involved if children spray paint buildings with graffiti” and was provided the following options ranging from very likely to very unlikely on a 4-point Likert scale. Very likely and somewhat likely was coded as likely and very unlikely and somewhat unlikely was coded as unlikely.	
Neighbor involvement-disrespectful	Neighbor involvement-disrespectful was reverse coded into a binary variable likely=1 and unlikely= 0. Mothers were asked, “Neighbors would get involved if children show disrespect to an adult” and was provided the following options ranging from very likely to very unlikely on a 4-point Likert scale. Very likely and somewhat likely was coded as likely and very unlikely and somewhat unlikely was coded as unlikely.	
Neighbor involvement-fight	Neighbor involvement-fight was reverse coded into a binary variable likely=1 and unlikely= 0. Mothers were asked, “Neighbors would get involved if fight broke out in front of house/building” and was provided the following options ranging from very likely to very unlikely on a 4-point Likert scale. Very likely and somewhat likely was coded as likely and very unlikely and somewhat unlikely was coded as unlikely.	
Neighbor involvement-fire station	Neighbor involvement-fire station was reverse coded into a binary variable likely=1 and unlikely= 0. Mothers were asked, “Neighbors would get involved if fire station was threatened and budget cut” and was provided the following options ranging from very likely to very unlikely on a 4-point Likert scale. Very likely and somewhat likely was coded as likely and very unlikely and somewhat unlikely was coded as unlikely.	

*Notes:* Time invariant variables were measured once. DV = dependent, IV = independent, and C = control variable. All variables are derived from Wave 6, unless otherwise noted.

## Appendix B: Linear regressions examining maternal school -based involvement and nonstandard employment

	Model 1: b (SE)	Model 2: b robust (SE)
<b>Employment Characteristics</b>		
Weekend	-.20(.14)	-.09(.14)
Evenings	-.04(.18)	.04(.18)
Overnights	-.02(.21)	-.06(.21)
Sporadic	.23(.16)	.23(.15)
<b>Covariates</b>		
Receiving special education		.58(.18)**
<b>Maternal Employment Characteristics</b>		
Multiple job holding (y=1, n=0)		.14(.15)
<b>Mother's health</b>		
Poor Health		-.27(.21)
<b>Mother's Race</b>		
Black		.52(.16)***
Hispanic		.43(.18)*
Other race/ ethnicity		-.004(.33)
<b>Mother's Education</b>		
High school or equiv.		.67(.22)**
Some college		.66(.20)***
Bachelor's or higher		1.11(.23)***
<b>Maternal Depression</b>		
Diagnosed with Depression		-.62(.18)***
<b>Adolescent Gender</b>		
Girl		.12(.12)
<b>Adolescent Health</b>		
Good health		.77(.34)
<b>Youth Behavior</b>		
Mean internalized behavior index		.07(.04)
Mean externalized behavior index		-.08(.04)*
<b>Relationship Status</b>		
Married/ Cohabiting		.06(.13)
<b>Maternal Context</b>		
Mother's age		.01(.01)
Mother's income		.01(.01)
<b>Household</b>		
Children in household		-.05(.05)

<b>Community</b>		
Neighborhood cohesion index		-.02(.02)
<b>Moderating effect</b>		
Special education*weekend	-	-.54(.35)
Special education*evenings	-	-.89(.42)*
Special education*overnights	-	-.28(.61)
Special education*sporadic	-	-.40(.38)
<b>Model Info.</b>		
<i>n</i>	2,174	2,110
F	(4,2169).87	(23,2086)3.91***
R <sup>2</sup>	.0016	0.0411

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## Appendix C: Linear regressions examining maternal home -based involvement and nonstandard employment

	Model 1: b (SE)	Model 2: b robust (SE)
<b>Employment Characteristics</b>		
Weekends	-.17(.07)*	-.15(.08)*
Evenings	-.11(.09)	-.10(.09)
Overnights	.17(.11)	.10(.11)
Sporadic	.10(.08)	.08(.08)
<b>Covariates</b>		
Receiving special education		.27(.11)**
<b>Maternal Employment</b>		
Multiple job holding		.05(.08)
<b>Mother's health</b>		
Poor Health		.15(.12)
<b>Mother's Race</b>		
Black		.32(.09)***
Hispanic		.19(.10)
Other race/ ethnicity		.22(.17)
<b>Mother's Education</b>		
High school or equiv.		.28(.13)*
Some college		.39(.11)***
Bachelor's or higher		.16(.13)***
<b>Maternal Depression</b>		
Diagnosed with Depression		-.03(.10)
<b>Adolescent Gender</b>		
Girl		.09(.06)
<b>Adolescent Health</b>		
Good health		.42(.24)
<b>Youth Behavior</b>		
Mean internalized behavior index		.01(.02)
Mean externalized behavior index		-.10(.02)***
<b>Relationship Status</b>		
Married/ Cohabiting		.04(.07)
<b>Maternal Context</b>		
Mother's age		-.02(.01)**
Mother's income		-.01(.01)**
<b>Household</b>		

Children in household			-02(.02)
<b>Community</b>			
Neighborhood cohesion index			
Special education* Weekend	-		-.02(.22)
Special education* Evenings	-		-.18(.27)
Special education* Overnight	-		.39(.30)
Special education* Sporadic	-		.07(.24)
<b>Model Info.</b>			
<i>n</i>	2,209		2,107
F	(4,2204)2.18		(23,2083)5.03***
R <sup>2</sup>	.0039		.058

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**Appendix D** Path analysis examining maternal suspension and nonstandard employment (n=2,222)

	Model 1: b (SE) (N=2,114)	Model 2: b (SE) (N=2,216)	Model 3: b (SE) (N=2,216)	Model 4: (N= not in special education only) OR (SE) (1,890)	Model 5: (N= in special education only) OR (SE) (N=283)
<b>Independent Variable</b>					
Weekends	.39(.12)***	.38(.12)***	.11(.13)	.08(.15)	.27(.36)
Evenings	.21(.14)	.21(.14)	-.06(.20)	.21(.18)	.11(.39)
Overnights	.08(.17)	.05(.17)	-.06(.20)	-.11(.22)	.13(.50)
Sporadic	-.12(.13)	-.14(.13)	-.11(.15)	-.002(.17)	-.68(.40)
<b>Mediators</b>					
School-based		-.01(.02)	.01(.02)	.01(.02)	-.004(.06)
Home-based		.004(.04)	.02(.04)	.02(.05)	.03(.10)
<b>Interaction</b>					
Special ed. (y=1, n=0)		----	.36(.17)*	----	
<b>Maternal Context</b>					
Mother's age		----	-.03(.01)*	-.02(.01)*	-.05(.03)
Mother's income		----	-.04(.02)**	-.04(.02)*	-.04(.04)
Multiple job holding		----	.06(.15)	.05(.16)	.11(.38)
Married/ Cohabiting		----	.06(.13)	.06(.14)	.02(.34)
<b>Mother's Race</b>					
Black		----	1.13(.19)***	1.21(.21)***	.95(.48)*
Hispanic		----	.54(.21)**	.56(.23)*	.45(.54)
Other race/ ethnicity		----	.42(.37)	.22(.41)	1.80(1.26)
<b>Education</b>					
High school or equiv.		----	.08(.21)	.09(.22)	.22(.56)
Some college		----	-.19(.18)	-.26(.20)	.23(.52)
Bachelor's or higher		----	-.60(.23)**	-.78(.26)**	.32(.65)
<b>Health</b>					
Diagnosed with Depression		----	.39(.16)**	.27(.18)	.76(.38)*
Poor Health (y=1, n=0)		----	-.08(.20)	-.16(.24)	.41(.46)
<b>Adolescent Context</b>					
Girl		----	-.77(.12)***	-.79(.13)***	-.76(.34)*
<b>Adolescent Health</b>					
Good health		----	.79(.41)*	.71(.51)	.76(.67)
<b>Youth Behavior</b>					
Internalized behavior		----	-.12(.04)***	-.10(.04)**	-.14(.08)
Externalized behavior		----	.38(.04)***	.45(.04)***	.19(.07)**

**External Context**

Children in household	----	-.09(.04)*	-.10(.05)*	-.07(.10)
Neighborhood cohesion	----	.007(.02)	.01(.02)	-.02(.04)

**Mediation**

<b>School-based</b>				
Weekends	-.20(.14)	-.20(.14)	-.21(.15)	-.30(.37)
Evenings	-.04(.17)	-.04(.17)	.09(.19)	-.74(.41)
Overnights	-.02(.21)	-.02(.21)	-.03(.23)	-.03(.54)
Sporadic	.23(.16)	.23(.16)	.21(.17)	.21(.40)
<b>Home-based</b>				
Weekends	-.17(.07)*	-.17(.07)*	-.18(.08)*	-.20(.24)
Evenings	-.11(.09)	-.11(.09)	-.05(.10)	-.54(.26)*
Overnights	.17(.11)	.17(.11)	.10(.12)	.61(.35)
Sporadic	.10(.08)	.10(.08)	.03(.09)	.38(.26)

**Model Info.**

<i>n</i>	2,114	2,216	2,216	2,173	2,173
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\*p < .05; \*\*p < .01; \*\*\* p < .001; OR=odds ratio; SE= standard error

## Appendix E: Sensitivity Analysis examining suspension and special education status

	Model 1: Not in Special Education	Model 2: In Special Education
<b>Employment Characteristics</b>		
Weekends	.02(.02)	.05(.08)
Evenings	.03(.03)	.02(.08)
Overnights	-.02(.03)	.02(.10)
Sporadic	.001(.03)	-.12(.08)
<b>Maternal Employment</b>		
Multiple job holding	.01(.03)	.01(.08)
<b>Mother's health</b>		
Poor Health	-.02(.04)	.07(.09)
<b>Mother's Race</b>		
Black	.16(.02)***	.18(.08)*
Hispanic	.05(.02)*	.09(.09)
Other race/ ethnicity	.002(.04)	.40(.23)
<b>Mother's Education</b>		
High school or equiv.	.004(.04)	.04(.12)
Some college	-.05(.03)	.06(.11)
Bachelor's or higher	-.11(.03)***	.07(.14)
<b>Maternal Depression</b>		
Diagnosed with Depression	.05(.03)	.17(.08)*
<b>Adolescent Gender</b>		
Girl	-.11(.02)***	-.15(.07)*
<b>Adolescent Health</b>		
Good health	.07(.06)	.14(.13)
<b>Youth Behavior</b>		
Mean internalized behavior index	-.02(.01)**	-.03(.02)
Mean externalized behavior index	.08(.01)***	.04(.02)**
<b>Relationship Status</b>		
Married/ Cohabiting	.001(.02)	-.01(.07)
<b>Maternal Context</b>		
Mother's age	-.003(.002)	-.01(.01)
Mother's income	.002(.001)	-.01(.01)

<b>Household</b>		
Children in household	-.01(.01)	-.01(.02)
<b>Community</b>		
Neighborhood cohesion index	.002(.003)	-.004(.01)
<i>Model Info.</i>		
<i>n</i>	1,785	249
F	(22,1762)19.31***	(22,226)3.47***
R <sup>2</sup>	.1725	.1565

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