

INVESTIGATING THE ASSOCIATION OF PARENTAL INFLUENCE AND
CHILDREN'S SCHOOL READINESS AND EARLY ACADEMIC ACHIEVEMENT:
AN ANALYSIS USING EARLY CHILDHOOD LONGITUDINAL STUDY –
KINDERGARTEN (ECLS-K)

A Dissertation
Submitted to
The Temple University Graduate Board

In Partial Fulfillment
of the Requirements for the Degree
DOCTOR OF PHILOSOPHY

By
Emanique Matthews

August 2008

ABSTRACT

INVESTIGATING THE ASSOCIATION OF PARENTAL INFLUENCE AND CHILDREN'S SCHOOL READINESS AND EARLY ACADEMIC ACHIEVEMENT: AN ANALYSIS USING EARLY CHILDHOOD LONGITUDINAL STUDY – KINDERGARTEN (ECLS-K)

By Emanique Matthews

Doctor of Philosophy

Temple University, 2008

Doctoral Advisory Committee Chair: Dr. James Earl Davis

This purpose of this study was to examine the associations between parental and social factors, parents' academic belief systems and parenting practices, and its influence on children's school readiness and early academic achievement. Efforts to do so involved utilizing the Early Childhood Longitudinal Study – Kindergarten (ECLS-K) First Grade Data to investigate the relationship between parental academic beliefs and parenting behaviors and its association with predicting children's kindergarten readiness (spring kindergarten cognitive and social development assessment scores) and early academic achievement (spring first grade cognitive and social development assessment scores). Significant findings from this study provide evidence that parental attitudes and parenting behaviors do impact children's cognitive and social-developmental performance in kindergarten and first grade. However, those parental beliefs and behaviors that are significant predictors of children's cognitive and social development

readiness in kindergarten were not as significant in predicting children's first grade performance on these measures. Such phenomena raises important questions with respect to the necessity of educational institutions having a better understanding of the influential role parents play in their young children's education. Findings from this study also encourages the broadening of the definition of school readiness to not only acknowledge the influence of various parental and social factors on the development of parents' academic beliefs for their children, but also how these beliefs in turn shape those parenting practices that are important for children's school readiness and academic achievement.

ACKNOWLEDGEMENTS

First I would like to thank my committee members for their guidance: Drs. James Earl Davis, Joseph Ducette, Billie Gastic, Will Jordan, Kathleen Shaw, and Barbara Wasik. I want to give special thanks to Dr. Kathleen Shaw who took me under her wings and provided mentorship, especially during the early phases of my doctoral program. Also, I would like to give special thanks to Dr. James Earl Davis who gave close attention to ideas, methods, analyses, writing and provided words of encouragement at each pivotal step of my dissertation. I must also acknowledge the support of Marcia Whittaker who ensured that I was kept abreast of impending deadlines and that my presence was still felt in the Urban Education program in spite of my living out of state. Also, I must thank Drs. Briggett Ford, Elizabeth Gershoff, and Stephanie Rowley for all of the statistical and conceptual guidance they offered me, in addition to the friendships that we have developed during this time. I must thank my husband, Sean, for providing me with unwavering love and support, laughter through the difficult times, and endless feedback on my research; all of which were essential as I maneuvered my way through this process as a doctoral student, wife, and mother. Thanks to my little ones, Edrick and Jordan, who would check in with me daily on how my work was progressing with my dissertation. Finally, I must thank my family and friends for providing me with emotional support during the times I needed it the most. As I review my doctoral student experience, although it was one of the most challenging I've experienced thus far, I realize that I have grown personally, intellectually, and professionally throughout the various stages of the process. And my accomplishments would not have been possible without the grace of God and the support of those mentioned above.

DEDICATION

This dissertation is dedicated in loving memory to the two most important women in my life: my grandmother Geneva Bledsoe and my mother Maryann Matthews.

It is through their self sacrifice and unconditional love that I am the person I am today.

My accomplishments are as much theirs as they are my own.

TABLE OF CONTENTS

	Page
ABSTRACT	iii
ACKNOWLEDGEMENTS	v
DEDICATION	vi
LIST OF TABLES	ix
CHAPTER 1	
INTRODUCTION	1
Statement of Problem	1
Significance of Study	3
Statement of Purpose	4
CHAPTER 2	
LITERATURE REVIEW	6
The Importance of Early Childhood Education	6
Kindergarten Programs	8
Assessing Children’s Abilities	9
Theoretical Perspectives of School Readiness	12
Parental Influence on Children’s School Readiness and Academic Achievement	15
Parenting Behaviors	21
Summary	27
CHAPTER 3	
DATA AND METHODS	29
ECLS-K Database	29
Data Analysis Plan	32
Operationalization of Variables	34
Outcome Measures	38
CHAPTER 4	
RESULTS	41
Description of the Sample	41
Predicting Kindergarten Performance	45
Predicting First Grade Performance	53
Summary of Children’s Kindergarten and First Grade Performance	58
Contextual Information Regarding Parents’ Beliefs and Behaviors	60
Summary	63

CHAPTER 5	
SUMMARY, DISCUSSION, AND CONCLUSION.....	65
Kindergartners and their Parents.....	65
Investigating Various Factors Influence on Children’s Outcomes.....	66
Conclusion	73
Limitations of Study	75
Research, Policy and Practice Implications	76
REFERENCES	81
APPENDIXES	91
A. INDEPENDENT VARIABLES	92
B. PARENT CHARACTERISTICS AND VIEWS OF SCHOOL READINESS SKILLS	94
C. PARENT CHARACTERISTICS AND ACADEMIC EXPECTATIONS OF CHILD	95
D. ASSOCIATIONS OF PARENT CHARACTERISTICS AND PARENT BEHAVIORS	96
E. MEANS OF PARENT CHARACTERISTICS AND PARENT BEHAVIORS.....	97

LIST OF TABLES

Tables	Page
3.1 Parent and Household Characteristics	35
3.2 Social Factors.....	36
3.3 Academic Belief System Variables	37
3.4 Parenting Behavior Variables	37
3.5 Dependent Variables.....	39
3.6 Reliability of Outcome Measures	40
4.1 Percentages of Child Characteristics for Fall Kindergarten Children by Race and Ethnicity	43
4.2 Home Environment of Kindergarten Children	44
4.3 Associations among Various Explanatory Variables on Cognitive Assessment Scores of First time Kindergartners in the Spring of Kindergarten	49
4.4 Associations among Various Explanatory Variables on Social Development Assessment Scores of First time Kindergartners in the Spring of Kindergarten	52
4.5 Associations among Various Explanatory Variables on Cognitive Assessment Scores of Sampled Children in the Spring of First Grade.....	54
4.6 Associations among Various Explanatory Variables on Social Development Assessment Scores of Sampled Children in the Spring of First Grade	57

CHAPTER 1

INTRODUCTION

Statement of Problem

The first five years of a child's life are critical in that during this period the brain grows very rapidly, in addition children's experiences during this time shape their cognitive, linguistic and socio-emotional development, linguistic (Bowman, Donovan, & Burns, 2001; Danziger & Waldfogel, 2000; Shore, 1997). Given the impact of children's early learning experiences, considerable attention has been paid to school readiness by researchers, policy makers, educators, and parents. The recent focus on school readiness is largely due to belief that children's early school success continues to grow over their years of schooling, and those children who enter school lagging behind academically are at a disadvantage (Lewit & Schuurmann Baker, 1995). The overarching concern is that if the achievement gap is not closed among these children they are at risk of not succeeding in school, demonstrated by lower academic achievement and graduation rates, and have limited opportunities thereafter (American Educational Research Association, 2005; Entwisle, Alexander, Cadigan, & Pallas, 1987; Entwisle & Alexander, 1993).

The recent political climate has emphasized policy makers' interest in children's academic achievement, as indicated in the policy initiative, the "No Child Left Behind Act" (NCLB). NCLB was signed by President Bush in 2002, and has a primary goal of better preparing the nation's children to read and succeed in school (US Department of Education, n.d.). Efforts to do so involve mandating nation-wide standardized testing of

grades three through eight, resulting in the emphasis of children exhibiting certain measurable academic and social skills at younger and younger ages. Increasing the academic expectations of younger children has not only placed considerable accountability on educators, but also parents, to prepare children to succeed academically. For example, as indicated in the “No Child Left Behind: A Parent’s Guide” parents have an important role in their children’s education by being actively involved by, “Attending parent-teacher meetings or special meetings to address academic problems at the school; volunteering to serve as needed; encouraging other parents to become involved” (U.S. Department of Education, Office of the Secretary & Office of Public Affairs, 2003, pg 10).

Similarly, another education reform initiative, “Grow Start, Grow Smart” (GSGS), also acknowledges the importance of parents in their preschool age (birth to five years of age) children’s education. Thus, a component of the GSGS initiative not only provides publications for parents and caregivers on child development, but implements a Head Start Parent Mentor training program to help Head Start parents facilitate their children’s language and literacy skills. Operating under the position that children’s preschool experiences (birth to five years of age) can have on the rest of their lives (Child Care Bureau, 2001), “Grow Start, Grow Smart” seeks to improve this country’s development of early childhood and Head Start programs as a means to provide young children with an environment that better prepares them to read and succeed in school (Child Care Bureau, 2001; US Department of Health and Human Services & Administration for Children and Families, 2005).

Significance of Study

As previously discussed, the political efforts such as NCLB and GSGS, acknowledge the importance of children's experiences in adequately preparing them for school and beyond. Given that parents are the primary people interacting with infants and toddlers consistently, it is generally perceived that parents are children's first teachers. Parents can largely influence their children's preparation for school and academic trajectories by constructing various learning experiences and environments for their children (Brooks-Gunn & Markman, 2005; Slaughter, 1987). Nevertheless, the question asked by many is to what *extent* do parents' roles influence children's school readiness and early achievement?

In this study I investigated parental influence on kindergartener's school readiness and first graders early academic achievement. Unfortunately, drawing conclusions from existing research regarding parental influence on children's academic outcomes is not a simple task. The existing literature does not provide support for the causal influence that parents' academic beliefs can have on their behaviors (Kinlaw, 2001). Nevertheless, it is a common assumption that the ways in which parents think about their children can impact their parenting practices, which ultimately affect their children's development (Miller, 1995). Another limitation of current research is that most studies that have empirically examined parents' academic beliefs or parenting behaviors and its association with children's academic outcomes have either used older longitudinal data sets or the research is based on smaller samples of school age children (Diamond, Reagan, & Bandyk, 2000; Halle, Kurtz-Costes, & Mahoney, 1997; Stevenson, Chen, & Uttal, 1990).

To address the preceding gap in the literature, this study is among the first to investigate the relationship between parents' academic beliefs and how these value systems may not only impact parents' behaviors but also the school readiness and early achievement of their children. The data used for this study is the parent and child data of the Early Childhood Longitudinal Study – Kindergarten (ECLS-K) First Grade. ECLS-K is a nationally representative study with an original kindergarten sample of 21,260 children enrolled in 1,277 kindergarten programs throughout the country during the 1998-1999 academic year.

The theoretical frameworks that will guide this study are based on the comprehensive and ecological perspective of in nature Bronfenbrenner's (1979). Through his work, Bronfenbrenner proposed a systems model that indicated the importance of familial context, in addition to other social factors, on children's development needs of children. This study seeks to investigate children's school readiness and early achievement by considering the various parental and social contextual factors that may not only impact parents' academic beliefs but also shapes parents' childrearing practices.

Statement of Purpose

This dissertation study is aimed at fully examining the how parents' beliefs and parenting behaviors influence their children' school readiness and early academic achievement. This study will investigate how parents' parents' views and behaviors and how these factors may affect children's cognitive and social development outcomes. The following research questions will guide this study.

Research Questions

1. What are the associations between parents' academic beliefs, parenting behaviors and their kindergarten children's school readiness?
2. What are the associations between parents' academic beliefs, parenting behavior and children's early achievement in first grade?

CHAPTER 2

LITERATURE REVIEW

Parents are, in effect, the child's earliest teachers, not simply because they have the "right" to be, but because they do, in their priorities, expectancies, and behaviors, influence the course of the child's achievement development (Slaughter, 1987, p. 6).

Building upon the preceding discussion of the importance of parents' role in children's development and academic trajectories, the following review of literature furthers the discussion of parents' influential role in their children's school readiness and early academic achievement. In doing so, the first part of the literature review discusses the importance of early childhood education on children's school readiness and academic achievement. Additionally, to follow will be a discussion of the development of formal and informal assessments to assess children's abilities. Moreover, various theoretical perspectives will be presented that contribute to the conceptualization of the term "school-readiness", while also introducing a more comprehensive or ecological framework for examining school readiness. Finally, there will be a review of the literature that provides a discussion on the various parental and social factors and their influence on parents' academic beliefs and parenting behaviors, which ultimately impact children's academic outcomes.

The Importance of Early Childhood Education

Academic disparities among children are seen as early as kindergarten, which suggests that differences among children's school readiness begins even earlier than their school entry (Entwisle & Alexander, 1993; Lewit & Schuurmann Baker, 1995). The concern is that if children who are at an academic disadvantage are not able to close this

achievement gap, their chances of being successful in school and beyond may be adversely impacted. One of the ways to address the academic inequities among children is through quality early childhood education. Quality in early care and education settings can be broadly defined as the aspects of the environment and children's experiences that nurture and positively impact their development (Layzer & Goodson, 2006). Research has suggested that programs that provide quality care are associated with structural factors as: adult child ratio, teacher education and training, teacher wages, and parent fees (Barnett, 1995; Brooks-Gunn, Han, & Waldfogel, 2002; Huffman & Speer, 2000; NICHD Early Child Care Research Network, 1999; Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2000). Moreover, the National Association for the Education of Young Children (NAEYC) indicates that "quality" in early childhood programs is assessed by several social and structural factors: monitoring and regulation of programs, stimulating and developmentally appropriate learning environments, comprehensive professional development for staff, adequate adult-child ratios, community resources for families, and valid multiple indicators of measuring children's progress (Epstein, 1995).

The "quality" of early childhood programs has also been associated with children's positive academic outcomes. For example, research has documented the links between higher quality child care environments and children's cognitive and language skills (NICHD Early Child Care Research Network, 2000; Peisner-Feinberg et al., 2000). Children from low-income families who participate in quality preschool center-based programs have also been shown to benefit from high quality care, demonstrated in the increased levels of school readiness when entering elementary school (Huffman & Speer,

2000; Wright, Diener, & Kay, 2000). Also, research indicates that children's school readiness is influenced by the following: families' race /ethnicity, poverty status, parents' educational attainment, and children's health and living environments (Currie, 2005). Given the influence of social and parental factors on children's academic outcomes, it is important that research seeks to understand the influence of various parental and social factors on parents' role (via their academic views and parenting practices) in their children's school readiness and academic achievement

Kindergarten Programs

The combination of the increased focus of early childhood education and the emphasis of current educational initiatives on reducing the academic disparities among children is partially responsible for the growth of kindergarten programs within this country. The emergence of kindergarten programs occurred in the United States at the turn of the 20th century and by 1901-1902 about 5% of U.S. children were enrolled in such programs (Lazerson, 1972). The popularity of kindergarten programs for America's early school age children continues to grow—in 2000 approximately 3.7 million 4-6 year olds enrolled in some type of kindergarten program (National Center for Education Statistics, 2001). Also, the increase of women entering the workforce and changes in theories of child development were not only responsible for the increase of early childhood programs and the availability of kindergarten programs in this country (Entwisle et al., 1987). Kindergarten's original purpose, which largely holds true today, was to help children make the transition from home to school by providing them with experiences that would assist in socializing them for school, assist in the development of

their sensory motor among other skills, develop positive attitudes towards school, and assist in their general readiness for school (Noble & Kedzior, 2003).

Research has shown that children who participate in either half day or full day kindergarten programs receive academic benefits that are likely to enhance their academic performance in the early school years (Puleo, 1988). Although many children experience benefits from being in kindergarten, there has been a shift in the range of academic and social skills that children are expected to exhibit before entering elementary schools (Stipek, 2006). As mentioned previously, the implementation of NCLB has increased pressures for schools to meet standardized measures of performance, which has inadvertently increased the need for teachers (as early as preschool) to have their students demonstrate certain skills (Shepard & Smith, 1988; Stipek, 2006). Additionally, increased expectations for children extend beyond that of teachers but are also attributed to the desire from parents to have their young children acquire greater skills and demonstrate earlier academic achievement (Shepard & Smith, 1988). However, existing research is limited in its investigation of the association between parental beliefs and parenting behaviors and their potential influence on children's academic performance (Kinlaw, 2001).

Assessing Children's Abilities

School Readiness – What does it Mean?

With there being increased pressure among all major actors in children's education (i.e. schools, educators, and parents) one would assume that there would be some agreement among these groups on a set of criteria developed to determine whether

children are “ready” when entering elementary school; however this is not the case (Graue, 2006; Saluga, Scott-Little, & Clifford, 2000). Due to the differences in conceptualizing school readiness, the range of these perspectives include definitions that either focus on the individual abilities of children or these perspectives are broad in its discussion of the actors and factors that contribute to children’s school readiness.

Traditionally, the conceptualization of school readiness has been based on the assumption that there is a predetermined set of capabilities that all children need prior to entering school (NAYEC, 1995). For example, the National Association for the Education of Young Children (NAEYC), a prominent association of early childhood educators and others dedicated to improving the quality of programs for young children, have developed three prerequisites for universal school readiness that include:

addressing the inequities in early life experience so that all children have access to the opportunities that promote school success; recognizing and supporting individual differences among children including linguistic and cultural differences; establishing reasonable and appropriate expectations of children's capabilities upon school entry.

[\(NAEYC, 1995\)](#). In addition, NAEYC has also developed a position statement on school readiness that proposes that the responsibility for the academic preparation of children goes beyond families and is more of a public responsibility to:

Ensure that all families have access to services and support needed to provide the strong relationships and rich experiences that provide children with a foundation for all future learning. At a minimum such services include basic health care, including prenatal care and childhood immunizations; economic security; basic nutrition; adequate housing; family support services; and high quality early childhood programs (NAEYC, 1995, pg. 1).

Prior federal attempts at defining school readiness have focused more on children's abilities to demonstrate skills in certain areas. For example, the now-defunct National Education Goal Panel (NEGP), formerly an independent executive branch agency of the federal government charged with monitoring national and state progress toward the National Education Goals. This panel identified five domains of children's development and learning that are important to their success in school, and are often areas that are formally assessed when determining school readiness: physical health and well being, social and emotional well-being, approaches to language, approaches towards learning, and cognition and general knowledge (Kagan, Moore, & Bredekamp, 1995).

Formal and Informal Assessments of Children's School Readiness

Discussions of what defines school readiness can not occur without considering the formal and informal methods used by schools and educators to assess children's academic and social abilities. First, there are two types of formal assessments used to determine the school readiness of children, naturalistic assessments and standardized, norm-references assessments (Maxwell & Clifford, 2004). Naturalistic assessments are most often used for improving the learning of children and involve observations. Standardized assessments follow a standard set of rules for administration and allow for a children's performance to be compared with their peers on various levels (e.g. school district-wide and nationally). Although standardized measures are extremely helpful in allowing for peer comparisons on various cognitive and social development measures, there has been criticism regarding the macro and micro-level use of standardized instruments to determine school readiness. Primarily, given the early years of children's development is considered to be rapid, individualistic, and is heavily influenced by

children's social context and family characteristics (e.g., environment, health care, parenting) – in addition the complex learning process of young children - it is extremely difficult to develop a set of reliable and valid assessment measures (Meisels, 1987; Shepard & Smith, 1988). Second, because teachers interact with their students within a learning context on a daily basis, their judgments concerning children's school readiness for school may be the best information source in evaluating students' performance and competencies (Mashburn & Pianta R.C., 2006). However, with the preceding phenomena allows for teachers to use informal methods to assess children's academic abilities, which leads to questions regarding the accuracy in teachers' judgments. There is also concern regarding the influence of teachers' characteristics on their informal assessments. For example, research indicates that teachers' perceptions of students are often influenced by the following: teacher characteristics, teaching experience, social factors, or child characteristics and social behaviors (Beady & Stephen, 1981; Heaviside & Farris, 1992; Lin, Lawrence, & Gorrell, 2003; NAEYC, 1995). Although both formal and informal methods of assessing children's academic and social abilities are current practice within schools, this dissertation study is among the first to investigate the influence of parental beliefs and behaviors on predicting both cognitive (standardized measure) and informal (teachers' assessments) school readiness and early achievement outcomes for children.

Theoretical Perspectives of School Readiness

The criterion that determines whether children are “ready” for school has been guided by various theoretical perspectives. When considering the term school readiness, Kagan (1990) proposes a dichotomy that suggests there is a difference between children's

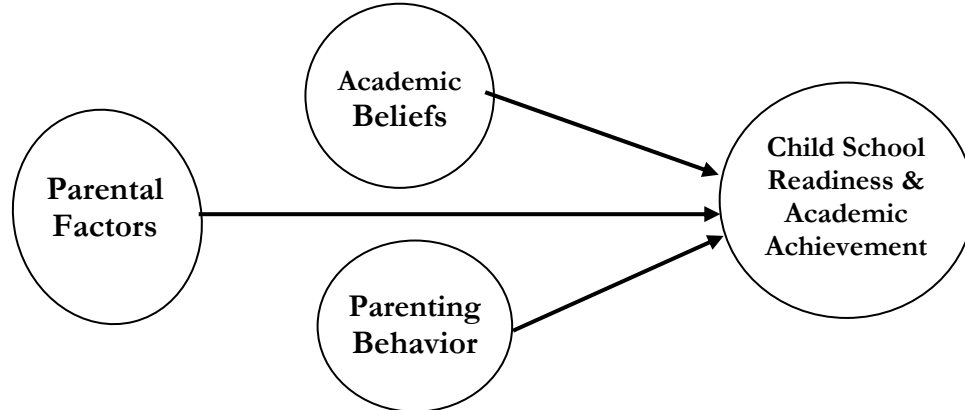
“readiness for learning” and their “readiness for school.” According to Kagan, children’s “readiness for school” is based on the premise that there are specific domains of social, cognitive, linguistic, or motor skills that children must demonstrate in indicating their school readiness. Whereas, “readiness for learning” assumes that children should achieve certain levels of development before they are able to have the capacity to learn certain subject matter.

Using Kagan’s dichotomy to explain children’s “readiness” for learning encompasses the following theoretical perspectives: chronological age, maturational, and developmental perspectives. Children’s chronological age is often used as the basis for determining when children should be enrolled in formal schooling (Saluga et al., 2000). According to prior research there is no statewide definition of school readiness, resulting in many instances children’s ages being one of the primary criteria of their eligibility for to begin kindergarten (Saluga et al., 2000). In fact, recent research has found that approximately 38 states consider children eligible for kindergarten if they turn five years old no later than October 16th of a given academic year (Ackerman & Barnett, 2005). Although many schools use children’s chronological age as one of the criteria for school entry, some would argue that many five year old children have difficulty with the kindergarten curriculum and are less likely to perform well on standardized tests,(Crnic & Lamberty, 1994; Uphoff J.K., 1986). Additionally, the emergence of the maturational perspective was attributed to various children were having difficulty with the kindergarten curriculum based on their performance levels and suggests that chronological age, alone, was not sufficient in determining children’s readiness (Crnic & Lamberty, 1994). Although a somewhat older perspective, this theory suggests that the

biological maturation of children dictates their ability to learn, therefore readiness is an individual child characteristic that can be assessed by readiness assessments (NAEYC, 1995). Finally, the developmental perspective is slightly different from the maturational perspective. This perspective is based more on the work of Piaget and Vygotsky and proposes that learning precedes children's development (Crnic & Lamberty, 1994; Kagan, 1990). Having such a Piagetian influence of the developmental perspective asserts that curriculum materials should be introduced to children only when they have attained a certain level of mental ability (Huffman & Speer, 2000). Major criticism of developmental theory negates its use to assess children's abilities due to the belief that this perspective does not account for cultural and ethnic differences among children, that influence their development and academic trajectories (Valsiner, 1997).

However, the previous theoretical perspectives are rather one-dimensional; and imply that school readiness is more centered on children and is best determined by his or her abilities. This dissertation study seeks to adopt a more comprehensive perspective in its definition of school readiness, one that considers the impact of various familial and social factors (e.g. race/ethnicity, socioeconomic status, type of school), in addition to the role of parents, on children's social development and academic outcomes.

A Paradigm for Investigating Parental Influence on Children's School Readiness



As proposed by Graue (1992) readiness is best seen in social and cultural terms, and is constructed by a set of ideas or meanings of people in communities, families, and schools. Examining school readiness through an “ecological” or comprehensive lens, acknowledges that families are often the primary context in which children develop (Bronfenbrenner, 1979), thus families strongly influence children’s early developmental trajectories. As proposed by Kohn (1979) there are elements within the social context that parents interface with regularly, which shapes the goals and values parents have for their children and – in turn - has direct and indirect influences on children’s development and readiness. This dissertation study seeks to use the preceding frameworks as a lens in examining the associations between parents’ academic views and parenting practices and children’s cognitive and social development outcomes in kindergarten and first grade.

Parental Influence on Children's School Readiness and Academic Achievement

Very early in their children’s lives, parents often develop perceptions or views of what their children are capable of achieving, which in turn is believed to influence their parenting behaviors (Miller, 1995). When considering the academic beliefs of parents’

existing research is limited in that it has largely focused on parents' long-term educational expectations for their children (i.e., the level of education they expect their children to obtain (Goodnow, 1988). This dissertation seeks to expand the conceptualization of parents' academic beliefs to include the academic expectations parents have for their children and parents' views of skills (academic and social emotional) that are important for their children to have prior to entering school. The following review of literature presents a discussion regarding existing differences in parents' academic belief systems and parenting behaviors, by various parental and social factors. In addition the review will summarize research regarding how the combination of parents' academic belief systems and parenting behaviors contribute to children's academic outcomes.

Parents' Academic Expectations for their Children

Virtually all parents within the United States have high academic aspirations for their children (e.g. attending and graduating from college) (Zill, Collins, & West, 1995); however, there are inconsistencies in existing research regarding existing differences in parents' academic expectations by families socioeconomic status. For example, research has shown that working and middle class families not only have higher expectations for their children's achievement, but also place greater emphasis on children's education than low-income families (Huttman, 1991; Willie, 1986). However the research of, Galper, Winfield, and Seefeldt (1997) investigated Head Start parents' beliefs regarding the highest level of education they expected their children to achieve. The study's sample consisted of 155 former Head Start children and 124 parents (14 White, 42 Black, 60 Hispanic, 6 Asian). According to the results, former Head Start parents believed that it

was important for their children to perform well academically and expected their children to attain high levels of education.

Additionally, existing research also suggests that parents' long-term academic expectations for their children are related to children's short-term and long-term academic achievement (Fulgini, Galinsky, & Poris, 1995). For example, Hess and colleagues (1980) conducted a longitudinal study of White parents of various socioeconomic backgrounds during their children's preschool (N=67) and sixth grade years (N=48). Findings from this study reveal that mothers' high academic expectations for their children's academic performance were significantly associated with positive reading readiness scores for their children. Such a findings support the research of Halle, Kurtz-Costes, and Mahoney (1997), who with a small sample of 41 low-income African American parents of school-age children, found that there is a significant positive relationship between parents' expectations for their children and children's academic achievement (i.e., reading and math scores).

Moreover, research has also suggested that parents of various racial ethnic groups differ in their development of culturally defined expectations for their children (Goodnow, 1988). Higginbotham and Weber (1992) argue that achievement by society's standards is more challenging for ethnic minorities because they must cross color lines as well as cultural lines. With that being said, one could assume that there would be differences in parents' expectations by race and ethnicity, and such phenomena has been investigated by Okagaki and Frensch (1998). These researchers used a sample of Asian American, Latino, and Anglo American parents of fourth and fifth grade students (N=275). One of the most significant findings revealed that parent's beliefs for their

children's long-term achievement varied significantly across ethnic groups. When compared to either Whites or Latinos, Asian American parents were more likely to expect their children to complete more years of education and typically set higher expectations for their children's grades. Similarly, the research of Stevenson, Chuansheng, and Uttal (1990) investigated differences in the academic beliefs of Black, White, and Hispanic parents (a subsample of approximately 1000 mothers) in Chicago elementary schools. Examining the academic beliefs of mothers (of first, third, and fifth graders) revealed similarities between Hispanic and Black families. In fact, when compared to their White peers, Black and Hispanic parents were significantly more likely to place high value on their children's education, highly rate their children's abilities, and have high expectations for their children's achievement. Such a finding confirms prior research proposing that African American families typically have higher educational aspirations for their children than White families (Slaughter-Defoe, Nakagawa, Takanishi, & Johnson, 1990), but goes a step further by suggesting that many Hispanic families also hold high academic expectations for their children. Combining the findings from the previously mentioned studies suggests that parents' race/ethnicity and families' socioeconomic status should not be ignored when investigating differences in parents' academic beliefs. Further research could provide a better understanding of the association of these factors on parental academic beliefs.

Parents' Views of School Readiness Skills

In conceptualizing the academic belief systems of parents, this dissertation study also considered the priority parents' placed on various skills their children should have prior to entering kindergarten. Research examining parents' views of school readiness

has included the following skills for children: knowing the letters of the alphabet, knowing how to count, being able to sit still, and knowing how to share (West & Germino-Hausken, 1995). The following discussion presents existing difference in parents' views of school readiness by several parental and social factors (i.e., educational attainment, race and ethnicity, and social class).

According to the report of the National Center for Education Statistics (NCES) (West & Germino-Hausken, 1995), the educational attainment of parents seems to be quite influential on the development of parents' views of school readiness skills. Research conducted by the NCES used a national representative sample of three to five year old children (N=4,423) who had not yet attended kindergarten. Data was collected from both public school kindergarten teachers and parents of preschool children via two surveys: the 1993 National Household Education Survey and the Fast Response Survey System (FRSS). Items drawn from these surveys were grouped into two categories, behavioral items (e.g., ability to communicate wants, takes turns) and school-related items (e.g., knows letters of alphabet, can count to 20 or more). Significant results from this study reveal that parents with fewer years of formal education often prioritized school-related skills for their children entering kindergarten. In fact, this NCES report indicated that almost three-fourths of parents who did not graduate from high school rated counting to 20 and knowing the letters of the alphabet as essential prior to school entry, compared to 41–50% of college graduates (West & Germino-Hausken, 1995). Such a finding was not mirrored in the more recent study by West, Denton, and Germino-Hausken (2000), which used more current longitudinal data (Early Childhood Longitudinal Study – Kindergarten). Using ECLS-K, the same data set used for this

dissertation, the preceding investigators found that parents of kindergartners with less than a high school education were more likely to prioritize social and emotional behaviors over academic behaviors as indicative of their children's readiness for school. Whereas, parents who have completed college are more likely to rate academically related skills as very essential for kindergarten entry. Further investigation of the relationship between parents' education level and their views of school readiness as it relates to children's outcomes could prove beneficial to school readiness research.

Moreover, parents' race/ethnicity and social class also appear to influence parents' views of school readiness, as indicated in the research of Diamond and colleagues (2000). These researchers utilized data from the National Household Education Survey of 1993 (N=2,509 households) having four to six year old children who had not yet entered kindergarten. On the surface, findings revealed that, in general, parents were significantly more likely to emphasize the importance of their children possessing academic skills over social behavioral skills. However, further investigation of parent subgroups indicated that ethnic minority parents were significantly more likely to place equal value on their preschool children possessing both academic and social behavioral skills. Although methodologically different, such findings were similar to that found in the qualitative research of McAllister and colleagues (2005). Significant findings from the preceding study revealed that their sample of Early Head Start parents (the majority of whom were African American) placed equal emphasis on academic and social skill development for their children. One possibility of the high value low-income families place on education for their children may be attributed to the belief that their

children's success in life is contingent upon them being equipped with a wide range of social/behavioral and cognitive skills before even starting school Hill (1999).

Summary of Parents' Academic Beliefs

In summary, research suggests that parents differ in their academic beliefs according to several parental and social factors (i.e., race/ethnicity, parents' educational attainment, and socioeconomic status). Based on a review of the literature, this dissertation is among the first to conceptualize parents' academic beliefs as not only parents' academic expectations but also parents' views regarding school readiness skills. This study is important because it provides a better understanding regarding the association between parents' academic beliefs and its significance on children's outcomes. Although this dissertation does not provide evidence for the causal relationship between parents' academic beliefs and their parenting behaviors, it does provide indicate that parents' academic beliefs are significant in predicting children's cognitive and social development readiness and early achievement.

Parenting Behaviors

The preceding discussion has explored the relationship between several parental and social factors and its influence on the academic beliefs of parents. The following discussion will summarize the existing literature in regards to the association between parents' academic beliefs on their parenting behaviors, in addition to the impact parenting practices have on children's academic outcomes.

Research confirms the role that parents' academic beliefs have on the types of educational activities and experiences parents provide for their children (Stipek, Milburn, Clements, & Daniels, 1992). It has been suggested that parents' academic beliefs

influence children's achievement in one or two ways: either through the impacting parents' behaviors directed at preparing their children for academic achievement, or by influencing the development of children's own beliefs regarding their abilities (Kinlaw, 2001). As mentioned previously, the research of Stevenson and colleagues (1990) supports the process of parents' beliefs having a direct impact on children's achievement. In regards to parents' involvement in various behaviors or activities with their children, these investigators found that ethnic minority families valued education for their children but the actions that supported their aspirations varied. Significant findings from this study revealed that Hispanic families wanted to assist more in the academic development of their children, but believed that they were less capable of helping their children. As a result, Hispanic families provided less academic preparation at home for their children than white and black parents. Also, Black families in this study were significantly more likely than their white or Hispanic peers to spend more time teaching their children academically related skills outside of school.

In regards to differences in parenting practices by families' socioeconomic status, the research of Holloway and colleagues (1995) suggests that there is often an inconsistent relationship between low-income parents' beliefs about kindergarten readiness and how these beliefs translate into actual parenting practices. Their findings reveal that although the low-income mothers of the sample mothers' had rather strong beliefs regarding the best teaching strategies for their children, their parenting behaviors did not always align with their beliefs. This phenomena is supported by the qualitative research of Lareau (2003) who attributes the social class differences in parenting behaviors to the fact that parents of working class and low-income families take a

different approach towards helping their children. These less affluent families' approach is often not valued among educators and administrators, and is one that is more, "...deferential rather than demanding toward school personnel; they seek guidance from educators rather than giving advice to them; and they try to maintain a separation between school and home rather than foster an interconnectedness" (Lareau, 2003 p. 198).

Additionally, in their empirical study Diamond and colleagues (2000) used the previously mentioned data from the National Household Education Survey (1993) and examined the learning activities parents engaged in with their children at home. Significant findings from this study reveal that there were no statistically significant racial and ethnic differences in the home learning activities or educational television viewing for these families. However, it is important to note that the results of this study did not indicate a disaggregation of the types of "home learning activities" parents were providing for their children; thus making it difficult to understand the differences in parenting behaviors that existed for families of various ethnic groups.

Activities Outside of School time and Children's Outcomes

It has been argued that the home environment of children is a crucial setting for the development of children's foundation for the academic achievement of young children (Slaughter-Defoe, 2000). Although most parents want their children to be successful in school, there are many parents who do not know how to assist their children, specifically in the home, in ways that may improve their children's performance (Epstein, 1986). When considering what embodies those parental behaviors that expose children to educational and social activities outside of school, these parenting practices

are often thought of as intellectual or cultural activities (i.e., helping children complete homework and projects, reading books with children, or taking them to cultural activities, and museums (Pomerantz, Moorman, & Litwack, 2007). The research of Farkas and Hibel (2008) is one of the few empirical studies that examine the association between social-cultural parenting practices and children's outcomes. Their findings reveal that whether parents who engage in certain social-cultural activities with their children, such as sports/clubs and performing arts, makes a significant difference for children's assessments of readiness; whereas, certain parenting behaviors (i.e., arts and crafts) have less of an impact on children's outcomes.

Additionally, the values parents hold with regards to literacy set the environment of literacy within the homes of children, and are quite influential in children's developing their own individual motivations to read (Baker, Scher, & Mackler, 1997). Senechal and LeFevre (2002) investigated the home literacy activities of children and parents from a sample consisting of two kindergarten cohorts (N=110) and one first grade cohort (N=58), with children from middle- and upper-middle-class families. This five-year longitudinal study measured parents' involvement by children's literacy development through their exposure to storybooks and parents' reports of how frequently they read to children. Significant findings from this study suggest that parents' involvement in teaching their children's early literacy skills had a positive impact on children learning to read at earlier stages. Such a finding is confirmed through existing research that has revealed that families' literacy practices in the home were associated with higher reading scores on children's school readiness assessments in kindergarten (Farver, Yiyuan, Eppe, & Lonigan, 2006).

Additionally, a parenting practice that is often influential in older ethnic minority children's academic development is racial socialization. Racial socialization involves parents constructing experiences for their children that will educate them in regards to their families' ethnicity. It has been proposed that the past individual racial discriminatory experiences of ethnic minority parents shape how they teach their children coping skills to potentially deal with racism (Demo & Hughes, 1990). Research suggests that those children who are considered "high risk" for academic failure and who participated in culture-related activities experienced higher cognitive scores in their readiness assessment (Beasley, 2002). However, current research on racial socialization is limited in that very few studies have investigated this particular parenting practice with younger children. Further empirical research investigating the influence of racial socialization on the academic performance of ethnic minority children in the early phase of their elementary schooling could provide beneficial to understanding the potential benefits of this parenting practice on children's outcomes

School Related Involvement & Children's Outcomes

It is also important that conceptualizations of parents' involvement in their children's education also includes parents' school related involvement (i.e. volunteering in the classrooms, attending parent teacher conferences or other parent meetings, and being members of various school committees or boards). Much of the existing research regarding parental school involvement has been conducted on children in elementary schools, and suggests that as children approach middle and high school parents may limit their involvement either due to children's autonomy with school or due to parents' own discomfort with children's subject matter (Eccles & Harold, 1996).

Parents within the US have been found to differ by socioeconomic status and race/ethnicity in regards to their involvement with school related activities. For example, those parents' from higher socioeconomic backgrounds and higher educational attainment are significantly more likely to be involved in their children's schools more than their less affluent and less educated peers (Pomerantz et al., 2007). However, there are also various barriers (i.e., inflexible work schedules, limited resources) that exist for parents of lower socioeconomic status that prevents them from being involved in school-related activities (Baker et al., 1997). Research also suggests that Hispanic and Black families are significantly less likely to be involved with school-related activities than their Whites peers. Eccles and Harold's (1996) proposes that Black parents tend to be more involved in their children's education by participating in educational activities within the home, whereas Whites are more likely to be involved in school settings.

What is most important to acknowledge is that children of parents who are involved within their schools experience, these children show improvements in their social behavior and skills (Fantuzzo, Davis, & Ginsburg, 1995; Marcon, 1999). Such research is supported by the meta-analysis of Jeynes' (2005), who investigated the association between parental school involvement and academic achievement among elementary school age children in urban areas. Findings from this review indicate that parent school-related involvement significantly affects general measures of students' academic achievement (e.g., readiness assessments, standardized tests, GPA, post secondary achievement). Moreover, a qualitative study of Hill and Craft (2003), conducted with a sample of African American (N=54) and Euro-American (N=49)) mothers also investigated the influence of parents' school related involvement on their

kindergarten children's outcomes. According to the results of the preceding study, parents' involvement at their children's school (i.e., volunteering in the classroom) improved the academic skills of African American kindergartners, which in turn improved their math performance on school readiness assessments.

Summary

The increasing academic standards of the No Child Left Behind Act for elementary schools has placed increased pressure on children to demonstrate certain measurable academic and social skills at younger and younger ages. However, there are differences in kindergarten children's academic and social performance, and these differences are often associated with their families' race and ethnicity and poverty status, parents' educational attainment, and children's health and living environments (Currie, 2005; Reichman, 2005). The recent focus on "school readiness" is partially influenced by the concern that should the academic gap not close between the preceding subgroups of young children, many academically disadvantaged students may be adversely impacted both short term and long term (Currie & Thomas, 1993). Although there are various theoretical perspectives of that attempt to define school readiness, there is currently no consensus among educational institutions, policy makers, educators, and communities on defining school readiness.

The preceding review of the literature suggests that parents have an influential role, via their academic beliefs and their parenting behaviors, in children's academic outcomes. It appears that parents differ in academic beliefs and behaviors according to various parental and social factors, which are often attributed to existing differences

among children's academic and social outcomes. Issues of children's school readiness and early academic achievement have been investigated. However, an investigation of the association between parents' academic beliefs and parenting practices, using a nationwide representative sample, and the academic and social development outcomes of early school age children has not been explored.

CHAPTER 3

DATA AND METHODS

This chapter provides details regarding the data utilized for this dissertation study and the various analyses used to answer the research questions presented in Chapter 1. Following is a discussion of the dataset used for the study, the operationalization of the variables for this the study, the univariate and multivariate analyses used to answer the research questions, and a description of additional analyses used to provide contextual information regarding parents academic beliefs and parenting behaviors,.

ECLS-K Database

This study involved secondary data analysis utilizing the Early Childhood Longitudinal Study-Kindergarten Class (ECLS-K) and First Grade Public Use Data. The conceptual model behind ECLS-K is an ecological one, acknowledging that children's development and academic trajectories are strongly influenced by parents and various institutions within society. ECLS-K recognizes the importance of these factors and also the interactions among them in children's lives and collects data from multiple sources of data (i.e., children, parents/guardians, teachers, and school administrators).

Currently, the National Center for Education Statistics (NCES) has collected five waves of data from the study participants at the following school-year based intervals: fall and spring kindergarten, fall and spring of first grade, the spring of third grade, fifth grade and eighth grade. The ECLS-K was developed by NCES and was implemented by Westat, a research corporation based in Rockville, MD, to study the development of

educational stratification among American school children. Sampling for the ECLS-K involved a dual-frame, multistage sampling design. At the first stage, 100 primary sampling units (PSUs) were selected from a national sample of PSUs (i.e., counties and county groups). At the second stage, public schools were selected from the Common Core of Data (a public school frame) and private schools were selected from the Private School Survey. Finally, approximately 23 kindergartners were selected for participation from each of the sampled schools (National Center for Education Statistics, Westat, Educational Testing Service, & University of Michigan - School of Education, 2002). Children of Asian/Pacific Islander racial background were over-sampled. In the spring of first grade, the sample was freshened to include a nationally representative sample of children entering school at 1st grade (and thus not eligible for selection into the study in the Kindergarten year).

The data utilized for this dissertation study were collected from both parents and teachers. The original sample of kindergarten children selected for the ECLS-K constitute a nationally representative sample of 21,260 children enrolled in 1,277 kindergarten programs during the 1998-1999 school year (West, Denton, & Germino-Hausken, 2000). However, when this sample of kindergarteners entered first grade the following year, due to attrition the sample size was reduced to $N = 17,209$. In order to have a sample of children's whose prior kindergarten experience would not be influential on children's outcomes, this sample of this study was restricted to first time kindergartners, resulting in a study sample of $N = 14,208$.

There were three data points used for this dissertation study, the fall and spring of kindergarten (1999) and the spring of first grade (2000). The decision to use the preceding data points was based on a theoretical consideration of school readiness and the availability of variables used for this study. Conceptually, children's early transitional period to school has considered the importance of both kindergarten and first grade preparing children for elementary school (La Paro, Pianta R.C., & Cox, 2000; Rimm-Kaufman & Pianta R.C., 2000). This study adopts the preceding perspective and examines children's kindergarten and first grade outcomes. Also, parent data collected in the fall of kindergarten provided information regarding family demographics and academic beliefs, while the spring kindergarten data provided information regarding the home environment of children in addition to various parenting behaviors. Moreover, comparing the outcome measures for both the spring of kindergarten and spring of first grade provides consistency in measuring the change in children's cognitive and social development outcomes. Utilizing data from ECLS-K enables researchers to examine the many facets of variables that could impact children's school readiness and early academic success in schools; thus making the data sufficient for an analysis of the following research questions.

Research Questions

1. What are the associations between parents' academic beliefs, parenting behaviors and their kindergarten children's school readiness?
2. What are the associations between parents' academic beliefs, parenting behaviors and children's early achievement in first grade?

Data Analysis Plan

Several variables from the ECLS-K database were used to answer the two aforementioned research questions.

Preliminary Analyses

First, descriptive analysis (of percentages) was performed to gain a true sense of the characteristics of the sample of kindergarten children, their parents, and the household characteristics of these families. Analyzing descriptive data served two purposes for this study: first, it served as a first screening of the indicators of interest; and second, it allowed for the exclusion of variables with too much missing data (specifically data that are assumed to be not missing at random). Additionally, chi square analyses of children's and school characteristics (including prior child care experience) by child's race/ethnicity were conducted in efforts to gain a better understanding of the nature of the relationship between the preceding characteristics and children's subgroups of race/ethnicity.

Multivariate Analysis – Predicting Kindergarten and First Grade Performance

In order to answer the preceding research questions, Ordinary Least Squares Regression was conducted to investigate whether parental and social factors, parents' academic beliefs and parenting behaviors were significant in predicting children's academic and social developmental outcomes. There were a total of twelve regression models in the analyses, three models each for children's cognitive and social development assessments in kindergarten and first grade. Each individual regression model controlled for various parental and social factors, school characteristics, parents' academic beliefs and parenting behaviors in its prediction of children's performance on cognitive and social development assessments.

The following describes the re-coding of the independent variables used as predictors in the regression models. Dichotomous variables were created for many of the independent variables in the regression models, for example the following parent household characteristics were included: parents' education level – Bachelors degree or higher; parents' age - older than age 30yrs, and dual parent households. In addition dichotomous variables were also constructed for the following school related characteristics: school type – public school, type of program - full day kindergarten programs, and child care – center based care (non Head Start) programs.

The variables that served as proxies for parents' academic belief systems included parents expectations regarding the highest level of educational attainment for their children and parents' views of academic or social skills they believed were important for their children to have prior to entering kindergarten. Parents' academic expectations were recoded from nine items to six items. In regards to parents views of school readiness skills, confirmatory factor analysis and reliability analysis was conducted in efforts to determine whether the six variables for school readiness could be grouped into categories in addition to determining how well these two groups represented the construct. The results indicated that from the six variables, two factors could be developed (i.e. academic skills and social emotional skills) with three variables per factor. For those academic skills and those social-emotional skills, I computed a mean score to create two new variables for school readiness skills. Finally, for those five variables of parenting behaviors in the regression models, two were interval level data (i.e. reading books, and racial socialization). The remaining three parenting variables are dichotomous were attending plays, concerts; school volunteer, and parent teacher

conferences. Those non-interval level parenting behaviors were recoded with “1” for participation and “0” for non participation.

Additional Analyses Describing Parents’ Beliefs and Parenting Behaviors

Moreover, there were a series of analyses (i.e. chi square analyses, ANOVA) conducted to investigate the relationship between various parental and social factors and parents academic belief systems and their parenting behaviors. Descriptive information regarding these analyses can be found in the Appendixes of this dissertation.

Operationalization of Variables

Below discusses several important steps taken in determining how the variables used in this study were operationalized. First, the variables that compose parental characteristics for parents were derived from the parent fall and spring interviews. Typically, the respondent for the parent interview was the mother of the child; however data was also collected from parents from fathers, foster/adoptive parent, or other guardians. Given the first order of preferences for data collection was the child’s mother, I decided to use certain variables regarding mothers’ characteristics (i.e., race/ethnicity, age, and education level) (National Center for Education Statistics et al., 2002).

As mentioned previously, both the fall and spring of parents’ kindergarten surveys were considered due to the data provided in these two time points: family demographics, child care use, home environment, parent-child interactions, and family processes. The variables pertaining to parent and household characteristics used for this study resulted in the following five variables shown in Table 3.1:

Table 3.1. Parent and Household Characteristics

Independent Variables	Measures
Parents' Age Continuous variable, recoded into four categories.	PIHMAGE Current mother (yrs) 1 – (18-23) 2 – (24-29) 3 – (30-35) 4 – (36 and older)
Race/ethnicity Originally, nine items. Recoded into five categories.	PIHMRAC 1 – White 2 – Black 3 – Hispanic 4 – Asian 5 – Other
Level of Education Parents' highest level of education attainment	WKMOME Responses are coded: 1 – less than High School diploma 2 – High school diploma 3 – Some college 4 – Bachelor's degree 5 – Master's degree 6 – PhD / Professional degree
Family Composition	P1HFAMIL 1 – Single Parent with 1 child 2 – Single Parent with 2+ children 3 – Dual parent household with 1 child 4 – Dual parent household with 2+ children
Socioeconomic Status Composite variable for ECLS-K using the following components for the creation of the SES variable: parents' educational attainment, parents' occupational prestige, and household income	WKSESQ5 Originally 5 quintiles, re-coded into 3 categories 1 - Low SES 2 - Middle SES 3 - High SES

Additionally, there were three variables that pertained to children's prior child care experiences (i.e., type of child care) and the characteristics of their current school. In regards to child care experience, it is important to note that ECLS-K gathered data separately for those children who participated in center-based care and those children who attended Head Start programs. Therefore, the recoded "center-based child care" variable did not include children who had participated in Head Start programs the year prior to kindergarten. Given that the majority (43.2%) of the kindergarten sample had used center based care prior to school entry, as opposed to having participated in Head

Start programs (8.9%), the center based variable was used in the multivariate analyses.

As indicated in Table 3.2 data for the following variables were collected from the parent and school administrator questionnaires:

Table 3.2. Social Factors

Independent Variables	Measures
Type of child care Originally nine items, recoded into five categories.	P1PRIMPK 1 – none 2 – relative care 3 – non-relative care 4 – Head Start 5 – Center based care
Type of School Originally three categories, recoded into 1. Public, and 2 Private/Religious	S2KSCTYP 1 – Catholic / other religious 2 - Private 3 – Public school
Type of kindergarten program	F1CLASS, F2CLASS 1 – Half day kindergarten programs 2 – Full day kindergarten program

There were a total of seven variables used to determine the proxies that would compose the construct “academic belief systems.” Data for these variables were collected from parents and consisted of parents’ academic expectations for their children regarding the level of education they expect their children to achieve. Data were also used from parents reporting the level of importance they placed on their children having any of the following six skills prior to entering kindergarten. These variables were derived from two questions: “How far in school do you expect your child to go?” and “How important do you believe the following characteristics are for a child to start kindergarten?” - as displayed below in Table 3.3.

Table 3.3. Academic Belief System Variables

Independent Variables	Measures
Views of School Readiness Ordinal variable of parents' response to question, "How important do you believe the following characteristics are for a child to start kindergarten?" .	P1COUNT – child can count P1SHARE – child can share P1PENCIL – child can use pencil P1STILL – child can sit still P1LETTER – child knows letters P1VERBAL – child can communicate Responses coded: 1 – essential 2 – very important 3 – somewhat important 4 – not very important 5 – not important
Academic Expectations Ordinal variable of parents response to question, "How far is school do you expect child to go?"	P1EXPECT 1-less than high school 2- graduate from high school 3-2+ years college 4-Bachelors degree 5-Masters degree 6-PhD / Professional Degree

Finally, as shown in Table 3.4 operationalizing parenting behaviors consisted of five variables that serve as proxies: reading books with children; attending plays, concerts, shows with children; attending parent teacher conferences; volunteering with schools; and discussing ethnic heritage with children.

Table 3.4. Parenting Behavior Variables

Independent Variables	Measures
Racial Socialization Parents were asked to respond to, "How often does someone in your family participate in special cultural events or traditions with ethnic background?"	P2ETHNIC Responses coded as: 1 – never 2-almost never 3 – several times a year 4 – several times a month 5 – several times a week or more
Reading Books "How often do you read book?"	P1READBO – read books Responses range from "1-never" to "4-several times a week or more".
Social Activities Responses to the question, "In the past month has anyone done the following with your child...?"	P2CONCRT – concert Responses coded: 1 yes 0 no
School Related Involvement Responses to the following question, "Since the beginning of the school year have you or other adults in your household".	P2PARGRP – Parent teacher conference P2VOLUT – acted as school volunteer Responses coded: 1 yes 0 no

Outcome Measures

As previously mentioned, children's school readiness and first grade performance were measured in the spring of kindergarten and the spring of first grade by the Direct Cognitive Assessment Scores (IRT) and the Teachers Social Rating Scale (SRS).

The Direct Cognitive Assessment contained items measuring children's competence in the following three domains: 1) Reading: measuring basic skills (e.g., letter recognition, print familiarity, sounds) vocabulary and comprehension, math, and general knowledge; 2) Math: measuring children's skills problem solving and conceptual and procedural knowledge; 3) General Knowledge: measuring children's knowledge of the natural sciences and social studies. In each subject area, children received a 12 to 20 item routing test. Performance on the routing items guided the selections of one of several alternative second stage forms, which the second stage form resulted in forming items of appropriate difficulty for the student based on their ability as indicated by routing items. This study will utilize the IRT Scale Scores for various reasons. First, IRT scores make it possible to calculate scores that could be compared regardless of which second stage form children were given. Also, by using the overall pattern of right and wrong responses, IRT can compensate for the possibility of a student guessing several hard items correctly.

In addition, the second outcome measure regarding children's social development was the Teachers Social Rating Scale (SRS). For the SRS, teachers (i.e., kindergarten and first grade teachers) were asked to assess children in the following three areas: 1) Approaches to Learning: measuring behaviors that affect the ease with which children

can benefit from the learning environment; 2) Self-Control: indicating the children’s ability to control their behaviors (e.g., controlling temper, respecting the property rights of others); and 3) Interpersonal Skills: rating the child’s skills in forming and maintaining friendships and getting along with others. Also, as indicated below in Table 3.5, I used a longitudinal weight specified by ECLS-K to be used in data analyses that investigate differences in children’s outcomes in 2 or more rounds of data.

Table 3.5. Dependent Variables

Direct Cognitive Assessment (IRT) Scores	
Dependent Variables	Measures
Kindergarten Cognitive Assessment	
Reading	C2RSCALE
Math	C2MSCALE
General Knowledge	C2GSCALE
First Grade Cognitive Assessment	
Reading	C4RRSCALE
Math	C4RMSCALE
General Knowledge	C4RGSCALE
Social Development Assessment (SRS) Scores	
Kindergarten Social Development Assessment	
Approaches to Learning	T2LEARN
Self Control	T2CONTRO
Interpersonal Skills	T2INTERP
First Grade Social Development Assessment	
Approaches to Learning	T4LEARN
Self Control	T4CONTRO
Interpersonal Skills	T4INTERP
Longitudinal weight	Y2COMWO

Reliabilities were calculated for every subject area and type of score in the direct assessments (National Center for Educational Statistics, Westat, Educational Testing Service, & Education, 2002). Standardized scores, as well as other IRT-based scores, had reliability of achievement estimates (theta) based on the variance of repeated estimates of theta. The scale scores for all SRS scales are the mean rating on the items. Assessment scores were computed only if the student was rated on at least two-thirds of the items in that scale. As indicated in Table 3.6, the reliabilities for both the IRT and SRS scores are

relatively high ranging from 0.80 - 0.97, which indicates that an investigator can be strongly confident in these assessments measuring children’s cognitive and social development.

Table 3.6. Reliability of Outcome Measures

IRT Scores		
	Spring Kindergarten Reliability	Spring First Grade Reliability
Reading	0.95	0.97
Math	0.94	0.94
General Knowledge	0.89	0.89
Split Half Reliability for SRS Scores		
	Spring Kindergarten Reliability	Spring First Grade Reliability
Approaches to Learning	0.89	0.89
Self-Control	0.80	0.80
Interpersonal Skills	0.89	0.89

CHAPTER 4

RESULTS

This chapter details the results of the preliminary analyses used to provide descriptive information on the sample, and the multivariate analyses used to directly answer the following research questions:

Research Questions

1. What are the associations between parents' academic beliefs, parenting behaviors and their kindergarten children's school readiness?
2. What are the associations between parents' academic beliefs, parenting behaviors and children's early achievement in first grade?

In addition, the second portion of this chapter provides a discussion of further analysis conducted to provide contextual information the differences in parents academic beliefs and their parenting behaviors by various parental and social factors.

Description of the Sample

The Early Childhood Longitudinal Study-Kindergarten (ECLS-K)'s First Grade class employed a multistage probability sample design to select a nationally representative sample of more than 20,000 children, weighted to represent all children attending kindergarten in 1998-99 (ECLS-K Codebook). This study looks at a sample of 14,186 first time kindergartners attending kindergarten programs in 1998-1999 and those who attended first grade the following year.

Upon examining descriptive information regarding the child characteristics of this sample of kindergartners, as shown in Table 4.1, it appears that more than half of the

sample consists of White children (58%). The average age for children is five and a half years old at the start of the school year; Asian children were the youngest group of children entering school in the fall, being slightly older than five years of age. In terms of gender and race/ethnicity among the sample of kindergarten children there does not appear to be a statistically significant relationship, but the results indicate that most of the Black and Asian kindergartners were males. Of those children who were enrolled in some type of child care arrangement the year prior to entering kindergarten, Hispanic children were least likely to have experienced *any* type of childcare arrangement, whereas Black children were over four times more likely than Whites and approximately twice more likely than Hispanics to have participated in a Head Start program before entering kindergarten. In addition, the descriptive analyses also reveal that most kindergartners attended kindergarten programs located in public schools (ranging from 74.6% – 88.3%). However, approximately one in five White children attended kindergarten programs in Catholic or Religious affiliated schools. Finally, a larger percentage of Black children (79.2%) were enrolled in full day kindergarten program, as opposed to Asian (46.3%) and White children (51.4%).

Table 4.1. Percentages of Child Characteristics for Fall Kindergarten Children by Race and Ethnicity^o

Child Characteristic	Total	White	Black	Hispanic	Asian	Other
		% (N)	% (N)	% (N)	% (N)	% (N)
Gender^a						
<i>Chi (4)=2.63</i>						
Male	50.3 (7151)	50.6 (4199)	49.5 (954)	50.5 (1208)	48.1 (367)	51.3 (409)
Female	49.7 (7057)	49.4 (4104)	50.5 (975)	49.5 (1186)	51.9 (396)	48.7 (388)
Former Child Care^{†b}						
<i>Chi (20)=1506.19***</i>						
None	17.9 (2,547)	15.9 (1308)	11.8 (221)	28.4 (670)	21.6 (163)	22.7 (178)
*Relative Care	13.7 (1944)	11.2 (922)	17.9 (336)	17.3 (408)	18.7 (141)	17.2 (135)
*Non-relative Care	10.3 (1461)	13.6 (1124)	3.8 (72)	7.3 (173)	3.9 (31)	7.5 (59)
Head Start	8.9 (1259)	4.2 (345)	23.0 (432)	11.9 (282)	10.2 (77)	15.5 (122)
Center based	43.2 (6134)	50.7 (4176)	35.6 (669)	30.8 (727)	41.5 (313)	30.7 (241)
Other types of care	4.9 (692)	4.4 (363)	7.8 (147)	4.3 (101)	3.8 (29)	6.4 (50)
Kindergarten Programs^c						
<i>Chi (4)=574.24***</i>						
Half Day	45.0 (6394)	48.6 (4039)	20.8 (401)	51.3 (1229)	53.7 (410)	39.3 (313)
Full Day	55.0 (7814)	51.4 (4264)	79.2 (1528)	48.7 (1165)	46.3 (353)	60.7 (484)
Type of School^d						
<i>Chi (8)352.32***</i>						
Catholic / Religious	17.3 (2459)	21.8 (1811)	9.3 (180)	11.5 (276)	13.2 (101)	10.7 (85)
Private	3.2 (451)	3.6 (299)	2.3 (45)	1.5 (36)	5.6 (43)	3.5 (28)
Public	79.5 (11298)	74.6 (6193)	88.3 (1704)	87.0 (2082)	81.1 (619)	85.8 (684)
Average child's age in months^{e***}	68.65	67.85	67.54	67.49	67.80	65.48

† Relative or non-relative child care provided in child's home or another person's home. ^o Total Sample N = 14,208. The following were the N's resulting from the calculations of the cross tab analysis: ^a The unweighted total sample N=14,186, due to missing values (N=22) the sum of the percentages may not equal 100. ^b The unweighted total sample N = 14,015, due to missing values (N=193) the sum of the percentages may not equal to 100. ^{c d} The unweighted total sample N = 14,186, due to missing values (N=22) the sum percentages may not equal 100. ^e F(4,839.79)=50.45, p<.001.
 *= p<.05; **= p<.01; ***= p<.001.

As mentioned earlier, given the fact that mothers were typically the selected parent respondent for the parent interviews, when selecting parent variables in this study, mothers' characteristics (i.e., race/ethnicity, age, and education level) were used, (NCES: User's Manual for the ECLS-K First Grade). As indicated in Table 4.2, 42.2% of the parents in the sample had a high school diploma or less and 35.8% of families fell within the range of low socioeconomic status. The average age of parents was 32.8 years, and 69.5% of parents were over the age of thirty. Finally, most homes (67.5%) were dual parent households with two or more children.

Table 4.2. Home Environment of Kindergarten Children

Characteristics	Percentage	(N)
Parents Race/Ethnicity		
White	60.6	8613
Black	13.2	1873
Asian	5.6	800
Other	3.6	513
Parents' Education Level^a		
Less Than High School	12.6	(1795)
High School Degree	29.6	(4206)
Some College	26.5	(3765)
Bachelor's Degree	16.3	(2311)
Master's Degree	4.6	(650)
Doctorate or Professional	1.7	(239)
Parent's Age^b		
18-23	4.4	(619)
24-29	24.2	(3445)
30-35	33.6	(4772)
36 and older	35.9	(5101)
Socioeconomic Status^c		
Low SES	5063	(35.8)
Middle SES	2867	(20.2)
High SES	6258	(44.0)
Family Composition^d		
Single parent household with 1 child	6.4	(905)
Single parent household with 2 or more children	14.7	(2083)
Two parent household with 1 child	9.7	(1382)
Two parent household with 2 or more children	67.5	(9591)
Average Mother's Age (in years)		32.8

^a. Unweighted Total Sample (N=14,008) due to missing values (N=200) the sum of the percentages may not equal 100. ^b Unweighted Total Sample (N=13,937) due to missing values (N=271) the sum of the percentages may not equal 100. ^c Unweighted Total Sample (N=14,208). ^d Unweighted Total Sample (N=14,208).

Predicting Kindergarten Performance

Cognitive Outcomes

This second phase of the results describes the analyses conducted in efforts to answer the research question, “What are the associations between parents’ academic beliefs, parenting behaviors and their kindergarten children’s school readiness?” Several regression models were conducted. As discussed in Chapter 3, kindergarten school readiness and first grade achievement were measured by children’s performance on two assessments: 1) a cognitive assessment of reading, math, and general knowledge and 2) a social development assessment of children’s approach to learning, self control, and interpersonal skills

The first set of regressions tables used parent and household characteristics, child care experience and school characteristics, parents’ academic beliefs and several parenting behaviors to predict kindergarten children’s cognitive and social developmental readiness. As shown below in Table 3, the factors in the three regression models explained approximately 19% of children’s school readiness in reading, 23% of their math readiness, and 32% of their readiness in the area of general knowledge.

Examining the school readiness of children in these three cognitive areas reflects that parent characteristics do, indeed, influence children’s performance. Before proceeding with the findings, it is important to note that in order to provide a reference group by which other racial/ethnic groups could be contrasted White parents were the excluded group from the regression models. Therefore, all results regarding the race/ethnicity of parents should be compared to Whites. In addition, because the SES composite measure was recoded into three categories, again, the Low SES quintile was

left from the regression models for kindergarten and first grade. Therefore, both the Medium SES and High SES predictors should be compared to the Low SES group. Moreover, although you will find both unstandardized Betas and standardized Betas in the proceeding tables, the following discussion will highlight the results of the standardized Betas.

As indicated in Table 3, the findings of the regression models reveal that generally indicate that those kindergarten children of older and more educated parents, who are from homes with higher socioeconomic statuses are significantly more likely to perform well on the reading, math, and general knowledge assessments. Also, race/ethnicity was a significant predictor of children's cognitive outcomes; whereby, children of Black and Hispanic parents were significantly less likely to perform as well as their in Whites and Asians peers in reading, math, or general knowledge readiness assessments. Additionally, when compared to those children from low socioeconomic status' whether children were from higher socioeconomic backgrounds was a highly significant predictor of how well kindergartners performed in reading (Beta .23, $p=.001$), math (Beta .24, $p=.001$), and general knowledge (Beta .26, $p=.001$).

As for the prior child care experience and school characteristics, the results of this study indicate that whether kindergartners were enrolled in some type of center base child care the year prior to entering school was a highly significant predictor of their readiness in reading (Beta .07, $p=.001$); math (Beta .08, $p=.001$); and general knowledge (Beta .05, $p=.001$). Additionally, children's enrollment in full day kindergarten programs and whether these kindergarten programs were in public schools was significantly related to children's performance in reading (full day programs - Beta .10, $p=.001$: public schools -

Beta $-.06$, $p=.001$); math (full day program - Beta $.09$, $p=.001$: and public school - Beta $-.06$, $p=.001$); general knowledge (full day program – no significance: public school – Beta $-.03$, $p=.01$).

When considering the components of parents' academic beliefs (i.e., academic and social-emotional skills and academic expectations) on kindergarten children's cognitive readiness it is clear that parental attitudes may be influential on children's outcomes. According to the results of Table 4.3, whether parents' held academic expectations of their children receiving a Bachelor's degree or more was not a significant predictor for any cognitive domain. However, it does appear that the priority parents' placed on their children having either academic or social-emotional skills prior to entering kindergarten varied in its significance in predicting children's cognitive outcomes. For example, those parents' who placed a high level of importance on their children having academic school readiness skills was a significant predictor for how well kindergarteners performed on reading (Beta $-.12$, $p=.001$) and math (Beta $-.08$, $p=.001$) readiness assessments. Whereas, those parents who valued social-emotional skills for their children was significantly related to all three cognitive assessments: reading (Beta $-.03$, $p=.01$), math (Beta $-.04$, $p=.001$), and general knowledge (Beta $-.05$, $p=.001$).

Moreover, when controlling for other factors in the regression models, it appears that there are two specific behaviors (i.e., parents reading books with their children and parents volunteering in their children's school) that are highly significant in predicting children's positive performance on all three cognitive measures. Additionally, there was one particular parenting behavior that was of interest. According to these analyses, it appears that whether parents' participated in parent teacher conferences was negatively

correlated with children's reading readiness (Beta $-.02$, $p=.05$). Such a finding implies that those parents who did not attend parent teacher conferences were more likely to have children who performed well in reading. Contrastingly, the results also reveal that parents' who attended parent/teacher conferences was positively correlated with children's general knowledge assessment (Beta $.04$, $p=.001$). The preceding findings calls into question how can parents' involvement and non-involvement in this particular behavior have different influence on children's reading and general knowledge readiness.

Table 4.3. Associations among Various Explanatory Variables on Cognitive Assessment Scores of First time Kindergartners in the Spring of Kindergarten

Predictors	Reading N=11,378			Math N=11,764			General Knowledge N=11,361		
	Beta 1	SE	Beta 2	Beta 1	SE	Beta 2	Beta 1	SE	Beta 2
Black	-2.87	.30	-.10***	-4.19	.24	-.17***	-5.66	.20	-.26***
Hispanic	-1.98	.30	-.06***	-3.46	.22	-.15***	-4.79	.20	-.21***
Asian	3.33	.59	.05***	.81	.47	.01	-4.86	.39	-.10***
Other race/ethnicity	-3.39	.57	-.05***	-2.99	.45	-.05***	-4.43	.38	-.09***
Less than 30 years old	-1.09	.21	-.05***	-1.10	.16	-.06***	-1.08	.14	-.07***
Dual Parent Household	1.30	.24	.05***	.89	.19	.04***	.51	.16	.03***
Middle SES	1.98	.26	.08***	2.02	.20	.09***	1.951	.17	.10***
High SES	4.90	.25	.23***	4.28	.19	.24***	4.03	.16	.26***
Center based Child Care	1.67	.19	.07***	1.39	.151	.08***	.75	.13	.05***
Full Day K program	2.24	.19	.10***	1.64	.15	.09***	.05	.13	.00
K Program Public School	-1.88	.26	-.06***	-1.36	.21	-.06***	-.63	.17	-.03***
Expectation of BA degree or higher	.48	.27	.02	.30	.21	.01	.31	.18	.01
Academic School Readiness Skills	-1.96	.16	-.12***	-1.00	.13	-.08***	-.05	.11	.01
Social Emotional School Readiness Skills	-.60	.23	.03**	-.71	.18	-.04***	-.79	.15	-.05***
Read Books	1.18	.12	.09***	.42	.10	.04***	.67	.08	.07***
Attend Concerts	-.180	.19	-.01	.06	.15	.00	.10	.13	.01
School Volunteer	1.57	.20	.07***	1.42	.15	.08***	1.38	.13	.09***
Parent Teacher Conference	-.55	.27	-.02*	.07	.21	.00	.77	.18	.04***
Racial Socialization	.08	.08	.01	-.02	.06	-.00	.16	.05	.03**
Intercept		.43			.49			.56	
R²		.19			.24			.32	
Adjusted R²		.19			.23			.32	

Weighted Least Squares Regression * = p < .05; ** = p < .01; *** = p < .001 Beta 1 = Unstandardized Beta Beta 2 = Standardized Beta

Social Development Outcomes

When compared to the regression models for kindergartners' cognitive assessments, the models that predicted children's social development school readiness (as shown in Table 4.4) explained very little of the variance of children's performance in the following domains: approaches to learning (8%), self control (6%), and interpersonal skills (5%). The preceding implies that there are additional factors that were not considered accounted for in the current regression models, which account for a greater amount of variance for children's social-development outcomes. However, there are similarities between the cognitive and the social development regression models in terms of the significance of several parent characteristics (i.e. race/ethnicity, socioeconomic status). For example, children of Hispanic and Black parents did not perform as well as their White or Asian peers on any of the social development assessments. Also, children of parents who were 30 years or older and those from dual parent households were significantly related to children's performance in all three areas of social development.

Investigating parents' academic beliefs and parenting behaviors and its association with children's social developmental outcomes reveal several important points. First, unlike what was illustrated in kindergartener's cognitive readiness assessments, in general parents' academic beliefs became less significant in predicting children's social development outcomes. Interestingly, there is a negative correlation, but significant association, between parents who expected their children to achieve at least a Bachelor's degree and children's assessment of self control (Beta $-.02$, $p=.05$). Similarly, there was a negative correlation between children enrolled in kindergarten programs and their assessments of self-control (Beta $-.03$, $p=.001$). Interpreting such findings suggests

that those parents who have lower academic expectations for their children and children enrolled in half day kindergarten programs performed better in these social development domains. Additionally, parents who placed high importance on academic (Beta $-.06$, $p=.001$) and social-emotional school readiness skills (Beta $-.03$, $p=.01$) were both significantly related to how well children's performed on the approaches to learning assessments. Moreover, when comparing these regression models to those predicting children's cognitive outcomes, there were three of the five parenting behaviors were significant predictors for all three social development outcomes for kindergartners. The additional parenting behavior that appeared be influential was whether parents attended parent teacher conferences. Interestingly, once again there was a negative correlation between those parents who attended parent teacher conferences and children's outcomes. However, this particular behavior was significant for all three measures of: approaches to learning (Beta $-.05$, $p=.001$), self control (Beta $-.03$, $p=.01$), and interpersonal skills (Beta $-.04$, $p=.001$).

Table 4.4. Associations among Various Explanatory Variables on Social Development Assessment Scores of First time Kindergartners in the Spring of Kindergarten

Predictors	Approaches to Learning N=11,536			Self Control N=11,470			Interpersonal N=11,425		
	Beta 1	SE	Beta 2	Beta 1	SE	Beta 2	Beta 1	SE	Beta 2
Black	-.20	.02	-.10***	-.20	.02	-.11***	-.16	.02	-.09***
Hispanic	-.06	.02	-.03***	-.03	.02	-.02	-.06	.02	-.03***
Asian	.11	.04	.03**	.10	.04	.03**	.02	.04	.01
Other race/ethnicity	-.19	.04	-.04***	-.17	.04	-.04***	-.21	.04	-.05***
Less than 30 years old	-.05	.01	-.04***	-.07	.13	.06***	.06	.01	-.04***
Dual Parent Household	.13	.02	.08***	.10	.02	.07***	.10	.02	.06***
Middle SES	.10	.02	.07***	.05	.02	.03**	.07	.02	.04***
High SES	.16	.02	.12***	.08	.02	.06***	.10	.02	.07***
Center based Child care	.02	.01	.01	-.05	.01	-.04***	-.02	.01	-.02
Full Day K program	-.02	.01	-.02	-.04	.01	-.03***	.01	.01	.01
K Program Public School	.04	.02	.02*	.06	.02	.03***	.06	.02	.04***
Expectation of BA degree or higher	-.01	.02	-.01	-.03	.02	-.02	-.04	.02	-.02*
Academic School Readiness Skills	-.07	.01	-.06***	-.02	.01	-.02	-.02	.01	-.02
Social Emotional School Readiness Skills	-.04	.02	-.03**	-.02	.01	-.01	-.02	.02	-.01
Read Books	.04	.01	.04***	.03	.01	.03***	.03	.01	.04***
Attend Concerts	.02	.01	.01	.02	.01	.01	.01	.01	.01
School Volunteer	.10	.01	.07***	.09	.01	.08***	.12	.01	.09***
Parent Teacher Conference	-.09	.02	-.05***	-.05	.02	-.03**	-.07	.02	-.04***
Racial Socialization	.02	.04	.01***	.00	.01	.00	.01	.01	.02
Intercept		.28			.24			.23	
R²		.08			.06			.05	
Adjusted R²		.08			.06			.05	

Weighted Least Squares Regression * = p < .05; ** = p < .01; *** = p < .001 Beta 1 = Unstandardized Beta Beta 2 = Standardized Beta

Predicting First Grade Performance

In an attempt to answer the second research question of this study, “What are the associations between parents’ academic beliefs, parenting behaviors and children’s early achievement in first grade?” further regression analyses were conducted. However, there were two changes were made in regards to the predictors of the regression models. First, given that the children were now at the end of first grade, child care experience was removed as a predictor. Second, those individual cognitive and social development assessment scores from spring of the kindergarten year were used as predictors for their respective models in the spring of first grade. As shown in Tables 4.5 and 4.6, for both cognitive and social development assessments in first grade, according to the standardized Betas, the kindergarten measure was not only the strongest, but was a highly significant predictor for children’s performance on all first grade measures. Also, on the surface it appears that the predictors of the three regression models for children’s cognitive performance explained approximately 58% for reading, 60% for math, and 71% for general knowledge of the variance of children’s first grade assessments. However, further investigation finds that the r square change that occurred from adding the spring kindergarten measure to the first grade models contributed to the majority of that variance found in each measure (i.e. 38% in reading, 28% in math, and 39% in general knowledge) Therefore, extracting these kindergarten outcome measures from the model would result in the other predictors of each model explaining approximately 20% in reading, 32% in math, and 32% in general knowledge.

Table 4.5. Associations among Various Explanatory Variables on Cognitive Assessment Scores of Sampled Children in the Spring of First Grade

Predictors	Reading N=11,461			Math N=11,850			General Knowledge N=11,438		
	Beta 1	SE	Beta 2	Beta 1	SE	Beta 2	Beta 1	SE	Beta 2
Black	-1.31	.28	-.03***	-1.48	.18	-.06***	-.80	.13	-.04***
Hispanic	-.37	.27	-.01	-.12	.16	-.01	-.56	.12	-.03***
Asian	-.04	.54	.00	-.55	.36	-.01	.08	.24	.00
Other race/ethnicity	-1.48	.52	-.02**	-1.01	.34	-.02**	-.63	.23	-.01**
Less than 30 years old	.36	.19	.01	.01	.12	.00	.19	.09	.01*
Dual Parent Household	.71	.22	.02***	-.02	.14	-.00	.36	.10	.02***
Middle SES	1.59	.24	.05***	1.04	.15	.05***	.74	.10	.04***
High SES	2.10	.23	.08***	1.67	.15	.09***	1.01	.10	.07***
Full Day K program	-.97	.17	-.04***	-.32	.11	-.02**	-.17	.08	-.01*
K Program Public School	-.63	.24	-.02**	.32	.16	.01*	-.43	.11	-.02***
Expectation of BA degree or higher	.33	.25	.01	.07	.16	.00	.14	.11	.01
Academic School Readiness	.06	.15	.00	-.23	.10	-.02*	.01	.06	.00
Social Emotional School Readiness	-.20	.21	-.01	-.03	.14	-.00	-.05	.09	-.00
Read Books	.13	.11	.01	.00	.07	.00	.18	.05	.02***
Attend Concerts	.14	.17	.01	.02	.11	.00	-.11	.08	-.01
School Volunteer	.63	.18	.02***	.52	.12	.03***	.27	.08	.02***
Parent Teacher Conference	-.58	.24	-.02*	-.43	.16	-.02**	-.16	.10	-.01
Racial Socialization	.12	.07	.01	-.01	.05	-.00	.05	.03	.01
Kindergarten Measure	.92	.01	.72***	.75	.01	.72***	.72	.01	.78***
Intercept		.76			.77			.84	
R²		.58			.60			.71	
Adjusted R²		.58			.60			.71	

Weighted Least Squares Regression * = p < .05; ** = p < .01; *** = p < .001 Beta 1 = Unstandardized Beta Beta 2 = Standardized Beta

Cognitive Outcomes

As indicated in Table 4.5, unlike in the spring of kindergarten cognitive measures it appears that the race/ethnicity of parents is not really as significant a predictor of Hispanic and Asian children's performance in first grade outcomes. Again, when controlling for other factors in the model, families' socioeconomic status was highly significant predictor of children's first grade achievement in the following domains: reading (Medium SES Beta .05, $p=.001$; high SES Beta .08, $p=.001$), math (Medium SES – Beta .05, $p=.001$; High SES Beta .09, $p=.001$), and general knowledge (Medium SES .04, $p=.001$; High SES Beta .07, $p=.001$). Interestingly, unlike the kindergarten year, the model indicates that there was a negative correlation between those children who attended full day kindergarten programs and their performance in reading ($-.035$, $p<.001$), math (Beta, $-.018$, $p<.01$), and general knowledge (Beta $-.011$, $p<.05$); suggesting that children attending half-day kindergarten programs performed better on these measures. An additional difference between kindergarten and first grade cognitive measures is that parents' age is of minimal significance in predicting outcomes, only being influential in children's general knowledge (Beta .01, $p=.05$) assessment.

In highlighting some of the findings on the association between parents' academic beliefs and parenting behaviors on children's outcomes revealed that parents' academic beliefs appeared to be less influential on children's performance. For example, those parents who placed a higher level of importance on their children acquiring academic school readiness skills prior to entering kindergarten were significantly more likely to have children who performed well in math (Beta .02, $p=.01$). Also, similar to the spring of kindergarten, parental volunteering in children's schools was positively correlated and

highly significant to children's performance in all three cognitive measures. Moreover, whether parents attended parent teacher conferences was significantly related – albeit inversely correlated - to children's performance in reading (Beta $-.02$, $p=.05$) and math (Beta $-.02$, $p=.01$). Yet, unlike the findings in kindergarten those children whose parents reading books frequently with their children was not as significant in predicting children's cognitive performance in first grade. For example, parents who read books with their children was only significantly related to children's performance on the general knowledge assessment (Beta $.02$, $p=.001$); thereby suggesting that parents' engaging in this behavior has less of an influence on children's first grade achievement in reading and math.

Table 4.6. Associations among Various Explanatory Variables on Social Development Assessment Scores of Sampled Children in the Spring of First Grade

Predictors	Approaches to Learning N=10,723			Self Control N=10,586			Interpersonal N=10,512		
	Beta 1	SE	Beta 2	Beta 1	SE	Beta 2	Beta 1	SE	Beta 2
Black	-.10	.02	-.05***	-.08	.02	-.05***	-.08	.02	-.04***
Hispanic	.03	.02	.01	.01	.02	.01	.06	.02	.03**
Asian	.13	.04	.03***	.07	.03	.02*	.05	.04	.01
Other race/ethnicity	-.03	.04	-.01	-.06	.04	-.02	-.06	.04	-.01
Less than 30 years old	-.02	.01	-.01	-.01	.01	-.01	-.03	.01	-.02*
Dual Parent Household	.06	.02	.03***	.06	.01	.04***	.07	.02	.04**
Middle SES	.05	.02	.03**	.02	.02	.01	.06	.02	.04***
High SES	.11	.02	.08***	.07	.01	.06***	.09	.02	.07***
Full Day K program	-.00	.01	-.00	-.03	.01	-.02**	-.00	.01	-.00
K Program Public School	-.04	.02	-.02*	.02	.02	.01	.00	.02	.00
Expectation of BA degree or higher	.01	.02	.01	-.01	.02	-.00	-.01	.02	-.01
Academic School Readiness Skills	.02	.01	.01	.01	.01	.01	.02	.01	.02
Social Emotional School Readiness Skills	-.04	.02	-.03**	-.01	.01	-.01	-.05	.01	-.03**
Read Books	.02	.01	.02	.01	.01	.01	.01	.01	.02
Attend Concerts	.01	.01	.00	.01	.01	.01	.02	.01	.01
School Volunteer	.03	.01	.02**	.04	.01	.03**	.04	.01	.03***
Parent Teacher Conference	-.06	.02	-.03***	-.05	.02	-.03**	-.06	.02	-.03***
Racial Socialization	-.01	.01	-.01	7.5E-.005	.01	.00	.00	.01	.01
Kindergarten Measure	.51	.01	.49***	.41	.01	.41***	.39	.01	.38***
Intercept		.54			.46			.43	
R²		.29			.21			.19	
Adjusted R²		.29			.21			.18	

Weighted Least Squares Regression * = p<.05; ** = p<.01; *** = p<.001 Beta 1 = Unstandardized Beta Beta 2 = Standardized Beta

Social Development Outcomes

Finally, as seen in Table 4.6 the regression models for first grade cognitive outcomes included the kindergarten measure, which accounted for a large proportion of the variance in the model (i.e. 25% for approaches to learning, 16% for self-control, and 13% for interpersonal skills); resulted in 7% of the variance in approaches to learning, 5% of the variance in self control and interpersonal skills. When controlling for other factors in the model, children of parents with an education level of a Bachelor's degree or higher and children from dual parent households performed significantly better in social development assessments. However, similar to previously discussed results, children of Black parents did not perform well on any of the three social-development assessments.

Additionally, parents' academic beliefs were not as significant in predicting first graders' social development assessments. For example, whether parents' who prioritized social-emotional skills was significantly related to how first grader's may perform in the approaches to learning (Beta $-.03$, $p=.01$) and interpersonal skills (Beta $-.03$, $p=.01$) measures. Also, the parenting behavior of parents volunteering in their children's schools was a significant predictor for all three outcomes: approaches to learning (Beta $.02$, $p=.01$), self control (Beta $.03$, $p=.01$) and interpersonal skills (Beta $.03$, $p=.001$).

Summary of Children's Kindergarten and First Grade Performance

In both the kindergarten and the first grade cognitive assessments of children, the regression models predicted a fair amount of the variance regarding children's performance in reading, math, and general knowledge. However, there are several important points to consider when comparing children's kindergarten and first grade

outcomes. Apparently, parents' age and educational attainment were indeed significantly related to kindergarten children's readiness in reading, math, and general knowledge but became less significant in first grade children's first grade performance. Also, in both time points, parents' race/ethnicity is significantly related to children's performance on cognitive and social development assessments of readiness. In fact, children of Black parents seemed to under-perform Whites and their peers on *all* six measures of cognitive and social development; followed by children of Hispanic parents (although Hispanics outperformed Blacks in their social development measures).

When answering the research questions regarding the effects of kindergarten parents' academic belief systems and childrearing practices on their children's academic and social development assessments, it appears that certain parental and social factors—in addition to parents' beliefs and behaviors—have more of an influence on children's outcomes than others. In regards to parents' academic beliefs, in general parents' attitudes towards their children's educational attainment and the priority parents place on academic and social-emotional school readiness skills were influential for children's cognitive and social development outcomes in both kindergarten and first grade. However the significance of these academic beliefs on predicting children's readiness and academic achievement varied for both time points, having less significance for children's first grade performance. For example, when compared to all six outcome measures in kindergarten and first grade, whether parents expected their children to achieve a Bachelor's degree or higher was only significantly related to children's interpersonal skills in kindergarten. Additionally, in regards to the priority parents place on school readiness skills (i.e., academic, social-emotional) indicate that these behaviors

were more significantly associated with children's readiness assessments in kindergarten rather than for their first grade outcomes. Parents who prioritized social-emotional skills for their children were significantly related to all three cognitive measures for kindergarten; but were only significant in predicting first grade children's math performance. Also, whether parents placed priority on academic school readiness skills for their children were significantly related to how well kindergarten children may perform in reading and math measures, and for first graders' math performance. In addition, parents' beliefs regarding academic school readiness skills was only a significant predictor of children's approaches to learning readiness assessment in kindergarten. Finally, whether parents volunteered in their children's school was significantly related to all cognitive and social development measures of those parenting behaviors that were influential to children's performance for both the spring of kindergarten and the spring of first grade. Moreover, interestingly there was one parenting behavior that had diminishing significance for first graders' cognitive and social development assessments - the frequency with which parents read books with their children.

Contextual Information Regarding Parents' Beliefs and Behaviors

Parents' Academic Beliefs

For the purpose of this study, parents' academic belief systems is conceptualized as the combination of parents' academic expectations (i.e., the highest level of education parents expect their children to attain) and parents' views of school readiness skills (i.e., academic and social emotional skills) children should have prior to entering kindergarten.

In efforts to determine the nature of the relationship between individual parent characteristics and parents' academic belief systems several analyses was conducted. As indicated in Appendix B, there are significant differences between subgroups of parents' characteristics and the level of importance parents placed on academic and social emotional school readiness skills. There are two findings worth discussing in regards to how parents differ in their priority of these school readiness skills. First, in general all racial/ethnic groups placed a higher level of importance on their children having academic skills as opposed to social-emotional skills. However, when investigating parents' educational attainment and socioeconomic status and their views of school readiness revealed that those parents with less than a high school diploma ($M=1.92$) and those parents of low SES ($M=1.85$) reported higher rates of prioritizing social emotional skills over academic skills.

Additionally, according to the results of chi square analyses of parent characteristics and their academic expectations, as shown in Appendix C, there is a highly significant relationship between parents' academic expectations for their children and parents race/ethnicity $X^2 (20, 803.07)$, $p=.000$; age $X^2 (15, 331.96)$, $p=.000$; education level $X^2 (30, 1987.79)$, $p=.000$; and socioeconomic status $X^2 (20, 1940.50)$, $p=.000$. In general, most parents expect their children to obtain at least a Bachelor's degree. However, upon investigating academic expectations by parents' subgroups it appears that older parents (ages 30 and older) were more likely to expect their children to obtain at least a Bachelor's degree. Younger parents, ages 18–23 (15.2%) and 24–29 (16.0%), tend to expect their children to obtain a PhD or other professional degree.

As for race/ethnicity of parents, Whites (54.5%) and Asians (48.9%) were more likely to expect their children to obtain a Bachelors degree. Moreover, there appears that the higher the education level of the parent, the more likely parents expected their children to obtain higher levels of education. For example, those parents with a Bachelor's degree (65.9%) expected their children to also achieve the same level of education. Similarly, the socioeconomic statuses of families also influenced parents' academic expectations in that the higher the socioeconomic status the higher the level of education these parents expected their children to achieve.

Parenting Behaviors

In this study, analyses were also done to examine whether parents differed in their parenting practices according to their parent characteristics. Efforts to do so involved the use of chi-square analyses (see Appendixes D) and ANOVA (see Appendix E) to investigate certain parental factors on the following five behaviors: reading books to child, attending plays, concerts, shows; volunteering at child's school; attending parent teacher conferences; and discussing ethnic heritage. According to the results shown in Appendix D there are highly significant ($p = .001$) differences between subgroups of parents (i.e. age, education level, race/ethnicity, SES) and whether they engaged in attending concerts and plays with their children; volunteered within their children's schools, and attended parent teacher conferences. In terms of the preceding three parenting behaviors when compared to their peers, a high majority of Whites attended plays and concerts with their children (65.5%); volunteered with their children's schools (74.4%); and attended parent teacher conferences (65.3%). Also, as parents' age increased, their reporting of engaging in these behaviors also significantly increased.

Finally, those families of high socioeconomic status reported a higher percentage of attending plays (53.0%), volunteering in schools (59.1%) and attending parent teacher conferences (47.4%).

Highlighting the frequency of two parenting behaviors also indicated that there are significant differences between subgroups (as shown in Appendix E) regarding how often parents read books with their children and discussed racial/ethnic heritage with their children. The only exception where there does not appear to be a significant difference is between parents' age and the frequency with which parents discuss their families' ethnic heritage with their children, $F(3, 13,435) = 2.31$. Also, White parents ($M=3.37$) read books with their children more frequently than any other racial ethnic group. Additionally, Asians ($M=3.49$) reported discussing race/ethnic issues with their children more than Blacks ($M=3.23$) and Hispanics ($M=3.25$). Finally, when compared to their less formally educated peers, those parents with a Bachelors degree or read more frequently with their children.

Summary

The multivariate analysis of this study provides evidence that parental attitudes and parenting behaviors do impact children's cognitive and social-developmental performance in kindergarten and first grade. In general, although it is apparent that certain parental beliefs and behaviors are significant predictors of how well children performed on assessments in kindergarten, these same attitudes and behaviors were not as influential in children's performance in first grade. Comparing the parenting behaviors by subgroups indicates that parents differ in the types of behaviors they are engaging in

with their children at home and also their participation in activities within the school. Given varying parental beliefs and behaviors by subgroups of parents, such a phenomena raises important questions with respect to the importance of educational institutions having a better understanding of how various academic attitudes and beliefs of parents impact the type and frequency of parenting practices—all of which provide the foundation for children's academic performance during their early years of schooling.

CHAPTER 5

SUMMARY, DISCUSSION, AND CONCLUSION

The purpose of this study was to examine parental influence, through their academic beliefs and parenting behaviors, on children's kindergarten readiness and early achievement. To that end, two research questions were explored:

1. What are the associations between parents' academic beliefs, parenting behaviors and their kindergarten children's school readiness?
2. What are the associations between parents' academic beliefs, parenting behaviors and children's early achievement in first grade?

In answering these research questions, data from the ECLS-K longitudinal study was used to examine the academic and social development outcomes of a sample of children in the spring of kindergarten and in the spring of first grade. The previous chapters presented the analyses and the results that attempted to answer the aforementioned research questions. This chapter summarizes and discusses the results of the study, and also discusses the implications of these findings for policy, practice, and future research.

Kindergartners and their Parents

The univariate analysis reveals that most (43.2%) children entering kindergarten, regardless of race and ethnicity, were placed in center based child care arrangements the year prior to entering kindergarten. Additional descriptive information of this sample of first time kindergartners indicated that the majority (55%) of these children attended full day kindergarten programs, and that these kindergarten programs were typically in public schools (79.5%). However, when compared to their peers Black children (79.2%) were

more likely to be enrolled in full day kindergarten programs. In regards to the parent sample of this study (N = 14,208), the sample was ethnically diverse: Whites (61%), Blacks (14%), Hispanics (15%) and Asians (6%). The average age for parents was thirty-three years old, and 42.2% of these parents had attained a high school diploma or less (12.6% less than high school diploma and 29.6% high school diploma). Moreover, 35.8% of the families in the sample were of from lower socioeconomic backgrounds.

Investigating Various Factors Influence on Children's Outcomes

As summarized above, the preliminary analyses of this study provided descriptive information regarding the children and parents of the sample. In attempting to answer both research questions, multivariate analyses were conducted to investigate the influence of various social factors, parent characteristics, parent beliefs, and parenting practices on children's cognitive and social development outcomes in kindergarten and first grade. The regression models used to predict children's cognitive outcomes explained a relatively fair amount of the variance of children's cognitive performance in reading, math, and general knowledge in kindergarten (range 19%–32%) and first grade (range 58%–70%). However, given that a large portion of the variance for first graders outcomes could be explained by adding the kindergarten measures to the model, caution should be used when interpreting the amount of the variance explained by the first grade regression models. After omitting the kindergarten measure in the first grade regression models the predictors in the cognitive regression models explained, 16% in reading, 20% in math, and 22% in general knowledge of the variance. Unlike the moderate amount of variance explained by the regression models for cognitive outcomes, the regression

models for children's social development assessments were relatively poor (only explaining 5%–7% of the variance) for both kindergarten and first grade outcomes. This suggests that there are other factors that were unaccounted for in the regression models for social development measures that were quite influential on children's outcomes in these domains.

Parent Characteristics and Social Factors

Exploring the impact of several parental and social factors on children's cognitive (e.g., reading, math, general knowledge) and social development (approaches to learning, interpersonal skills, and self control) outcomes revealed interesting findings. First, for both kindergarten and first grade, the race/ethnicity of parents significantly influenced children's performance on cognitive and social development assessments. In fact, the results reveal that when compared to their peers, Hispanic and Black children were significantly less likely to perform as well as their White and Asian peers in cognitive and social development measures for both time points. In addition, family's socioeconomic status was one of the most significant predictors of children's outcomes in kindergarten and first grade. The strong influence of socioeconomic status on children's school readiness is confirmed by existing research showing that children from impoverished conditions are less likely to be "ready" when entering school in kindergarten (Zill et al., 1995). However, Davis-Kean's (2005) research contradicts the magnitude of socioeconomic status influence on children's academic development, and research emphasizes the importance of parents' engaging in academic activities with their children at the home to offset some of the negative affects of socioeconomic status on children's academic performance.

Significant findings from this study also indicate that certain parental factors had diminishing significance in predicting children's outcomes beyond kindergarten. For example, although children of parents who were 30 years of age or older were more likely to perform well on both cognitive and social development assessments in kindergarten, parents' age became less significant for children's performance on measures in first grade (slightly significant for reading and general knowledge outcomes). Such a difference was also similar for parents' educational attainment. Children of parents with a Bachelor's degree or higher were most likely to perform well on all three cognitive measures in kindergarten; however, when these children were assessed again in the spring of first grade they only performed well on the general knowledge measure. It is important to acknowledge the findings regarding the significant association between children who were enrolled in half-day kindergarten programs and their positive performance on cognitive measures in first grade, and the self-control assessment in kindergarten and first grade. Currently, existing research supports the benefits of children's attendance in full day programs on their academic achievement (Coladarci & Ervin, 2000; Cryan, Sheehan, Wiechel, & Bandy-Hedden, 1992; Entwisle & Alexander, 1993). Further research examining the influence on half day programs on children's outcomes could prove beneficial to understanding the different types of kindergarten programs and children's academic preparation for later schooling. Finally, given the minimal amount of variance explained in the regression models, in addition to the small significance of parental factors in predicting children's first grade performance, suggests that there are other factors (e.g., school, teacher, or student characteristics) that become more influential on children's overall performance as children advance in school.

Parents' Academic Beliefs

In general parents' attitudes towards their children's educational attainment and the priority parents place on academic and social-emotional school readiness skills for their children were indeed significant predictors of how well children performed on cognitive and social development measures in kindergarten and first grade. As shown with several parental characteristics discussed above, the influence of parents' academic beliefs on most children's first grade assessments was minimal. First, parents' expectation that their children would receive a Bachelor's degree or higher was not a significant predictor for the majority of children's outcomes in kindergarten and first grade, and was only minimally significant, and inversely related, to children's readiness assessments of their interpersonal skills in kindergarten. Although methodologically different, this study's finding contradicts existing research that indicates that parents' high academic expectations was a predictor of children's math and reading achievement (Halle et al., 1997; Stevenson et al., 1990). The preceding finding of this study suggests that parents who expected less educational attainment for children were forming experiences for their children that better facilitated their children's ability to control their own temper and behavior, or the ability to develop and maintain friendships. Further research should be conducted to gain a better understanding of the negative correlation between parents' academic expectations and children's social development in the early years of elementary school.

To my knowledge, this study is among the first to examine the association between parental academic attitudes and young children's cognitive and social development outcomes. Results from this study indicate that, unlike academic

expectations, parental views of school readiness skills did have an influence on both children's cognitive and social development assessments. For example, in kindergarten, whether parents placed value on either academic or social emotional skills were significant predictors for children's reading and math scores, but were only significant for one of the three social development assessments (i.e., approaches to learning). Interestingly, findings from this study also reveal that parents' priority of their children having academic or social emotional skills prior to entering school, was significant in predicting children's reading in kindergarten and math in both grades. Whereas, parents' value of social emotional skills was most significant for children's reading, math, and general knowledge scores in kindergarten.

When considering parents' academic values for their children, findings from this study suggest that some beliefs (i.e. school readiness skills) are more important for predicting kindergartner's performance than for predicting first graders' outcomes. Thus implying that the level of importance parents place on academic and social emotional skills may only be of significance for children's performance in kindergarten, but these values of skills have minimal importance the longer children are in school. The preceding raises an important issue regarding the change of parents' expectations for their children over time. For instance, those skills or behaviors parents' expect from their younger children such as having the ability to share, are exchanged for other expectations when their children get older children, such as them having the ability to withstand peer pressure.

Parenting Behaviors

The findings of this study also reveal that not all parenting behaviors are associated with positive children's outcomes in kindergarten and first grade. Apparently, there are three parenting behaviors that may have a positive influence on children's outcome measures: reading books with children, volunteering in children's schools, and attending parent teacher conferences. One of the more notable findings was the importance of parents volunteering in their children's schools. For example, for both kindergarten and first grade, school volunteering was significantly related to *all* cognitive and social development outcomes for children in both kindergarten and first grade. Such a finding is supported by existing research that has indicated an association between higher levels of parental involvement in children's schooling and the greater academic success of children and adolescents (Hill & Taylor, 2004; Sheldon, 2005) and early school success, demonstrated through an increase in language and academic skills, and social competency (Hill & Craft, 2003). The benefits to children whose parents volunteer within their schools could partly be attributed to fact that by volunteering gives parents an opportunity to assess where their child is in comparison to other children in terms of curriculum, and are able to adopt ways to help their children at home. The level of parental involvement in volunteering within school also raises an interesting point to consider in terms of increased parental school involvement former Head Start participation of families. According to one of the Head Start Performance Standards, Head Start programs are required to provide parents with opportunities to volunteering within their children's classrooms and to become active in the decision making and governance (Administration for Children and Families., 1998). Although former Head

Start parents were not included in the multivariate analyses, this study can not speak towards the association between families' prior Head Start experiences and whether having participated in Head Start increases the likelihood of parents' school involvement. Further investigations into the activities that embody parents' school involvement, in addition to investigating this behavior among former Head Start families could provide a better understanding of the impact of school volunteering on children's outcomes.

The second influential behavior on children's outcome measures was the frequency in which parents read books to their children. This particular behavior was significantly related to how well children performed in all three cognitive measures in kindergarten (i.e., reading, math, and general knowledge). Such a finding confirms that of prior research that emphasize the importance of literacy activities on student academic achievement (Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006; Halsall & Green, 1995). Interestingly, this parenting behavior became less significant for children's cognitive and social development outcomes in first grade. Whereby, parents' who engaged in reading books to their children was only a significant predictor of first graders' performance on the general knowledge assessment. Such a finding could be attributed to the possibility that by the spring of first grade children are learning to read and are spending more time doing individual reading. In efforts to gain a better understanding of the diminishing importance of this literacy behavior, further investigation is needed to determine whether this literacy activity simply transitions from being parent initiated to being a behavior that is adopted by children.

Additionally, whether parents attended parent /teacher conferences was also a significant predictor of children's outcomes. Interestingly, there was an inverse

relationship between parents' attendance of parent teacher conferences and their children's assessments. Thus, indicating that those children of parents who did *not* participate in parent teacher conferences were significantly more likely to perform well on *all* social development measures for both time points. Apparently this parenting behavior was also significant in predicting children's cognitive measures (i.e., reading assessments in kindergarten and first grade, math for first grade). It is possible that parents who attend parent teacher conferences are doing so as an intervention for some type of problem, academic or otherwise, their children are having at school. Therefore, those parents in the sample who did not attend such meetings with teachers were likely to have children who were performing well in the reading and the three social development measures. Also, it is quite possible that there may be issues that arise (e.g. work scheduling) that prevent many parents from attending parent teacher conferences yet these parents compensate for this by becoming involved in other forms of school-related activities (i.e., volunteering in schools). Although ECLS-K did not provide data that allowed investigators to examine the purpose of having scheduled conferences between parents and teachers, further exploration of why special meetings or conferences are scheduled between parents and teachers could provide a better understanding of the inverse association between this behavior and children's outcomes.

Conclusion

The implementation of such educational policy as the No Child Left Behind Act, through its mandate of nationwide standardized testing of children in grades third through eight, has resulted in an escalation of curriculum (Shepard & Smith, 1988) in the early

elementary grades. Increasing the academic expectations of younger children has placed considerable focus on the importance of children having quality preschool experiences that prepare them to enter kindergarten being “school ready”. Such an emphasis on school readiness at earlier ages has not only placed increased accountability on educators of younger children, but has also increased the responsibility on the part of parents to adequately prepare their younger children to succeed academically.

When conceptualizing the term “school readiness” currently there is no consensus on a universal definition (Graue, 2006; Saluga et al., 2000). Graue’s research (1992) proposes that the school readiness of children should be viewed in social and cultural terms, and that the conceptualization of readiness is a set of ideas or meanings constructed by communities, families, and schools. Moreover, Mashburn’s (2006) perspective of school readiness acknowledges that children acquire school related competencies through social relationships with their peers, their teachers, and their families. Such positions of children’s school readiness suggest that families are embedded within larger social and cultural contexts that inevitably influence the parental values and behaviors; which in turn impacts children’s academic trajectories. Through its investigation this study supports the perspectives proposed by Graue (2006) and Mashburn’s (2006), but seeks to advance the definition of school readiness to include the important role of parents in their children’s academic trajectories. The results of this study suggests that the definition of school readiness is one that must acknowledge the various social and parental factors that influence parents’ academic values and goals they have for their children, while also recognizing that these beliefs shape parents’ behaviors and the types of activities parents engage in with their children.

Limitations of Study

This dissertation study is important for school readiness research because it considers one of several actors (parents) in shaping children's early educational experiences. However, this study has several limitations that should be considered when interpreting its results. First, performing secondary data analysis of ECLS-K data collected from parents and teachers, rather than collecting the data myself, required me to construct variables that I felt were the best proxies to measure certain concepts. Also, the data collected from parents was self reported, which increases the probability for response bias, therefore caution should be specifically be take when interpreting the parenting practices and generalizing its findings to a general population.

There are two methodological limitations to this study in regards to the restriction of the sample and missing values. First, this study is limited due to the restriction of the sample to only consist of first time kindergartners. Also, there is a minimal amount (ranging from 2% - 5%) of missing data for the analyses caution should be used when generalizing the findings beyond the population of this study. However, preliminary analyses were conducted with a sample of that contained no missing values, which dropped the sample in to approximately 4,000. In doing, the univariate analyses reveal that there are no statistically significant differences in the univariate analyses. The issue in conducting multivariate analyses with the much smaller sample with no missing values drastically reduced the power in the regression models.

An additional limitation of this study is in regards to the use of parental and family characteristics for the study. First, this study used variables for mothers' characteristics (i.e. race/ethnicity, education level). Also, although this study does

suggests that there are differences in children's outcomes by parents by socioeconomic status and their race/ethnicity, the analyses do not provide information regarding the interaction between race and social class. This issue is specifically important when interpreting the results of the parenting behaviors. Finally, by focusing on only two time points (kindergarten and 1st grades) does not take full advantage of the rich longitudinal data of ECLS-K.

Research, Policy and Practice Implications

Research Implications

Findings from this dissertation study reveal that parental attitudes and parenting practices are influential on children's academic and social development outcomes. However, those parental views and behaviors that are significant in predicting children's school readiness in kindergarten are not necessarily as effective in predicting children's first grade performance. Such findings regarding the influential role parents' play in children's school readiness and early achievement have implications for future research. Further investigations of children's school readiness and early achievement should continue to use longitudinal data examine the impact of parents in children's academic outcomes. By including more recent waves of data collected for ECLS-K, this would allow investigators to examine whether parents academic views / goals for their children mirror those parenting behaviors that facilitate children's academic achievement over time.

Another potential direction for research pertains to the differences in subgroups of parents regarding their academic beliefs and parenting behaviors. Specifically, given the

significant racial and social class differences between parental beliefs and parenting practices school readiness research could benefit greatly from further investigations of *within* group differences of parents. Such research could be useful in determining which parenting behaviors are more effective for children with diverse educational needs (i.e., different learning styles, family socioeconomic background). In addition, although this study used mothers' characteristics in its analyses, an additional direction for future research is to examine the role of fathers influence on children's academic outcomes. Fathers' role in their children's education is a growing body of literature and existing research indicates that there is an association between fathers' involvement with children's academic and social-emotional school readiness (Downer & Mendez, 2005; Jayakody & Kalil, 2002). However, existing research could benefit from further investigations on fathers' role specifically as it relates to fathers' academic beliefs and parenting practices and its influence on children's cognitive and social developmental readiness and early achievement.

Finally, prior research on school readiness indicates that disadvantaged children who have experienced some type of quality preschool/child care program are more likely to be more "school ready" than their peers who did not attend such program (Barnett, 2002; Peisner-Feinberg & Rustici, 2000). Findings from this study further supports prior school readiness research by revealing that children who participated in center based child care the year prior to entering kindergarten were significantly more likely to perform better on assessments of readiness. However, ECLS-K is limited in that it does not allow researchers to assess the issue of "quality". Also, because ECLS-K is also limited in that it gathered retrospective data from parents regarding their use of child care

the year prior to their children's kindergarten entry. Future research on school readiness could benefit from the use of the Early Childhood Longitudinal Study – Birth Cohort (ECLS-B), a nationally representative sample of 14,000 children born in 2001.

Conducting investigations using ECLS-B data would make it possible to empirically examine the extent of parent's behaviors at home with their children, in addition to the influence of parental involvement and childcare (i.e., teachers and social factors) on children's development and school readiness.

Policy and Practice Implications

There is an increasing acknowledgement from both existing research and policy of the importance of parents' role in children's development. For example the No Child Left Behind Parent Guide is quite descriptive in its suggestions for parents' school related involvement (i.e. , attending parent-teacher meetings or special meetings; volunteering to serve as needed) within their children's schools (U.S.Department of Education, Office of the Secretary, & Office of Public Affairs, 2003). This study suggests that it would be helpful for educational policies to expand its conceptualization of parental involvement to include those activities, parenting practices, or resources that parents can integrate into their lives outside of school time.

As seen with the results, it is apparent that although parents' are important actors in their children's school readiness and early achievement, they are not solely responsible for their children's education. The social networks of those who shape children's educational experiences also include school administrators, social workers, psychologists and teachers (Miedel & Reynolds, 1999). Therefore, it is extremely important that policy initiatives adopt a comprehensive ecological approach to issues regarding children's

academic achievement. Policy initiatives adoption of such a framework could be quite effective at the school district level and within local communities. For example, at the school district level, policies could be implemented to expand the trainings available to teachers and school personnel regarding the importance of parents' involvement on their children's outcomes, while also providing practical examples of how to engage parents in an effective partnership with schools. For example, this study indicates that whether parents volunteered in their children's school was a significant predictor for kindergartners and first graders cognitive and social development outcomes. However, the reality is that there are existing barriers (e.g. work issues, child care, discomfort in interacting with school personnel) that may limit parents' ability to become involved in school related activities. The school district could also introduce in-service trainings for parents that would allow for parents to receive instruction on the types of activities to engage in with their children, or helpful tools to use in assisting their children at home with their school work.

What is most apparent from this study is that research and initiatives should consider adopting a conceptualization of school readiness that considers the influence of actors (i.e., teachers, parents), factors (i.e., socioeconomic status), and institutions (i.e., early childhood centers, schools) on children's school readiness and academic achievement. To this end, it is extremely important that researchers seek to bridge scholarship with practice via interventions developed through a collaboration of policymakers, local schools, communities, and families. Local partnerships among major actors must also acknowledge the influence of social factors within communities that impact children's development. In doing so, these partnerships have large potential in

encouraging the development of resources (i.e., parenting programs, teacher professional development programs) for families and schools that seek to not only advance children's school readiness but also their academic trajectories.

REFERENCES

- Ackerman, D. J., & Barnett, W. S. (2005). *Preparedness for Kindergarten: What Does "Readiness" Mean?*. New Jersey: Rutgers: National Institute for Early Education. Document Number)
- Administration for Children and Families. (1998). *Head Start Program Performance Standards and Other Regulations*. Retrieved from <http://eclkc.ohs.acf.hhs.gov/hslc/Program%20Design%20and%20Management/Head%20Start%20Requirements/Head%20Start%20Requirements/1308/1308.21%20%20Parent%20participation%20and%20transition%20of%20children%20into%20Head%20Start%20and%20from%20Head%20Start%20to%20public%20school..htm>.
- American Educational Research Association. (2005). Early Childhood Education – Investing in Quality Makes Sense, *Research Points* (Vol. 3).
- Baker, L., Scher, D., & Mackler, K. (1997). Home and Family Influences on Motivations for Reading. *Educational Psychologist*, 32(2), 69-82.
- Barnett, W. S. (1995). Long-Term Effects of Early Childhood Programs on Cognitive and School Outcomes. *The Future of Children* 5(3).
- Beady, C., & Stephen, H. (1981). Teacher Race and Expectations for Student Achievement. *American Educational Research Journal*, 18(2), 191-206.
- Beasley, T. (2002). Influence of Culture-Related Experiences and Socio-demographic Risk Factors on Cognitive Readiness among Preschoolers.
- Bowman, B., Donovan, M., & Burns, M. (2001). *Eager to Learn: Educating Our Preschoolers*. Washington DC: National Academy Press.
- Bronfenbrenner, U. (1979). *The Ecology of Human Development*. Cambridge MA: Harvard University Press.
- Brooks-Gunn, J., Han, W.-J., & Waldfogel, J. (2002). Maternal Employment and Child Cognitive Outcomes in the First Three Years of Life: The NICHD Study of Early Child Care. *Child Development*, 73(4), 1052-1072.

- Brooks-Gunn, J., & Markman, L. (2005). The Contribution of Parenting to Ethnic and Racial Gaps in School Readiness. *The Future of Children*, 13(1), 139-168.
- Child Care Bureau. (2001). Grow Start – Grow Smart The Bush Administration’s Early Childhood Initiative. from <http://www.whitehouse.gov/infocus/earlychildhood/earlychildhood.pdf>
- Coladarci, T., & Ervin, R. (2000). *Full Day versus Half Day Kindergarten: Effects on Standardized and Local Assessments of Academic Outcomes*. Paper presented at the American Educational Research Association.
- Crnicek, K., & Lambert, G. (1994). Reconsidering School Readiness: Conceptual and Applied Perspectives. *Early Education and Development*, 5(2), 91-105.
- Cryan, J. R., Sheehan, R., Wiechel, J., & Bandy-Hedden, I. G. (1992). Success Outcomes of Full Day Kindergarten: More Positive Behavior and Increased Achievement in the Years After. *Early Childhood Research Quarterly*, 7, 187-203.
- Currie, J. (2005). Health Disparities and Gaps in School Readiness. *The Future of Children* 15(1), 117-138.
- Currie, J., & Thomas, D. (1993). *Does Head Start Make a Difference?* (Working paper 4406): National Bureau of Economic Research. Document Number)
- Danziger, S., & Waldfogel, J. (2000). Investing in Children: What Do We Know? What Should We Do? In C. f. A. o. S. Exclusion (Ed.), *CASE Paper*. London School of Economics.
- Davis-Kean, P. E. (2005). The Influence of Parent Education and Family Income on Child Achievement: The Indirect role of Parental Expectations and the Home Environment. *Journal of Family Psychology*, 19(2), 294-304.
- Demo, D. H., & Hughes, M. (1990). Socialization and Racial Identity Among Black Americans *Social Psychology Quarterly*, 53(4), 364-374.
- Diamond, K., Reagan, A., & Bandyk, J. (2000). Parents' Conceptions of Kindergarten Readiness: Relationships with Race, Ethnicity, and Development. *The Journal of Educational Research* 94(2), 93-100.

- Downer, J. T., & Mendez, J. L. (2005). African American Father Involvement and Preschool Children's School Readiness. *Early Education & Development, 16*(3), 317 - 340.
- Eccles, J. S., & Harold, R. D. (1996). Family involvement in children's and adolescents' schooling. In A. B. J. R. Dunn (Ed.), *Family school links: How do they affect educational outcomes?* (pp. 3-34). Mahwah, NJ: Erlbaum.
- Entwisle, D., Alexander, K., Cadigan, D., & Pallas, A. (1987). Kindergarten Experience: Cognitive Effects or Socialization? . *American Educational Research Journal, 24*(3), 337-364.
- Entwisle, D. R., & Alexander, K. L. (1993). Entry into School: The Beginning School Transition and Educational Stratification in the United States. *Annual Review of Sociology, 19*, 401-423.
- Epstein, J. L. (1986). Parents Reactions to Teacher Practices of Parent Involvement. *The Elementary School Journal, 86*, 277-294.
- Epstein, J. L. (1995). School / Family / Community Partnerships: Caring for the Children We Share. *Phi Delta Kappan, 76*, 701-712.
- Fantuzzo, J. W., Davis, G. Y., & Ginsburg, M. D. (1995). Effects of Parent Involvement in Isolation or in Combination with Peer Tutoring on Student Self-concept and Mathematics Achievement. *Journal of Educational Psychology, 87*, 272-281.
- Farkas, G., & Hibel, J. (2008). Disparities in School Readiness. In A. C. Booth, Ann (Ed.), *Being Unready for School: Factors Affecting Risk and Resilience* (pp. 3-28). New York London: Lawrence Erlbaum Associates Taylor & Francis Group.
- Farver, J. M., Yiyuan, X., Eppe, S., & Lonigan, C. J. (2006). Home Environments and Young Latino Children's School Readiness. *Early Childhood Research Quarterly, 21*, 196-212.
- Fulgini, A. S., Galinsky, E., & Poris, M. (1995). *The Impact of Parental Employment on Children*. Unpublished manuscript, New York.

- Galper, A., Wigfield, A., & Seefeldt. (1997). Head Start Parents' Beliefs about Their Children's Abilities, Task Values, and Performances on Different Activities. *Child Development, 68*(5), 897-907.
- Goodnow, J. J. (1988). Parents' Ideas, Actions, and Feelings: Models and Methods from Developmental and Social Psychology. *Child Development, 59*, 286-320.
- Graue, M. E. (1992). Social Interpretations of Readiness for Kindergarten. *Early Childhood Research Quarterly, 7*, 225-243.
- Graue, M. E. (2006). The Answer Is Readiness - Now What is the Question. *Early Education and Development, 17*(1), 43-56.
- Hair, E., Halle, T., Terry-Humen, E., Lavelle, B., & Calkins, J. (2006). Children's school readiness in the ECLS-K: Predictions to academic, health, and social outcomes in first grade. *Early Childhood Research Quarterly, 21*(4), 431-454.
- Halle, T., Kurtz-Costes, B., & Mahoney, J. (1997). Family Influences on School Achievement in Low-Income African American Families. *Journal of Educational Psychology, 89*(3), 527-537.
- Halsall, S., & Green, C. (1995). Reading Aloud: A Way for Parents to Support their Children's Growth in Literacy. *Early Childhood Education Journal, 23*(1), 27-31.
- Heaviside, S., & Farris, E. (1992). *Public School Kindergarten Teachers' Views on Children's Readiness for School*. Retrieved from.
- Hess, R. D., Kashiwagi, K., Azuma, H., G., P., & Dickson, W. (1980). Maternal Expectations for Mastery of Developmental Tasks in Japan and the United States. *International Journal of Psychology, 15*, 259-271.
- Higginbotham, E., & Weber, L. (1992). Moving Up with Kin and Community: Upward Social Mobility for Black and White Women. *Gender and Society, 6*, 416-440.
- Hill, N. E., & Craft, S. A. (2003). Parent School Involvement and School Performance: Mediated Pathways among Socioeconomically Comparable African American and Euro American Families. *Journal of Educational Psychology, 95*, 74-83.

- Hill, N. E., & Taylor, L. C. (2004). Parental School Involvement and Children's Academic Achievement: Pragmatics and Issues. *American Psychologist Society*, 13(4), 161-164.
- Hill, S. A. (1999). *African American Children: Socialization and Development in Families*. Thousand Oaks London New Delhi: SAGE Publications Inc.
- Holloway, S. D., Rambaud, M. F., Fuller, B., & Eggers-Pierola, C. (1995). What is "appropriate practice" at home and in child care?: Low-income mothers' views on preparing their children for school. *Early Childhood Research Quarterly*, 10(4), 451-473.
- Huffman, L., & Speer, P. (2000). Academic Performance Among At-Risk Children: The Role of Developmentally Appropriate Practices. *Early Childhood Research Quarterly*, 15(2).
- Huttman, E. (1991). A Research Note on Dreams and Aspirations of Black Families. *Journal of Comparative Family Studies*, 22(2), 147-158.
- Jayakody, R., & Kalil, A. (2002). Social Fathering in Low-Income, African American Families with Preschool Children. *Journal of Marriage and Family*, 64(2), 504-516.
- Jeynes, W. (2005). A Meta-analysis of the Relation of Parental Involvement to Urban Elementary School Student Academic Achievement. *Urban Education*, 40(3), 237-269.
- Kagan, S. L. (1990). Readiness 2000: Rethinking Rhetoric and Responsibility. *Phi Delta Kappan*, 72, 272-279.
- Kagan, S. L., Moore, E., & Bredekamp, S. (1995). *Reconsidering Children's Early Learning and Development: Toward Shared Beliefs and Vocabulary*. . Washington, DC: National Education Goals Panel. Document Number)
- Kinlaw, R. C., Kurtz-Costes, Beth, Goldman-Fraser, Jenifer. (2001). Mothers' Achievement Beliefs and Behaviors and their Children's School Readiness: A Cultural Comparison. *Journal of Applied Developmental Psychology*, 22(5), 493-506.

- Kohn, M. (1979). The Effects of Social Class on Parental Values and Practices. In D. a. H. Reiss, Howard (Ed.), *The American Family* (pp. 1-246). New York: Plenum Press.
- La Paro, K., Pianta R.C., & Cox, M. J. (2000). Kindergarten Teachers' Reported Use of Kindergarten to First Grade Transition Practices. *The Elementary School Journal*, 101(1), 63-78.
- Lareau, A. (2003). *Home Advantage: Social Class and Parental Intervention in Elementary School*. Oxford: Rowman & Littlefield Publications Inc.
- Layzer, J. I., & Goodson, B. D. (2006). The Quality of Early Care and Education Settings. *Evaluation Review*, 30(5), 556-576.
- Lazerson, J. (1972). The Historical Antecedents of Early Childhood Education. In I. J. Gordon (Ed.), *71st yearbook of the National Society for Education: Early childhood education* (pp. 33-54). Chicago: University of Chicago Press.
- Lewit, E. M., & Schuurmann Baker, L. (1995). School Readiness. *The Future of Children*, 5(2), 128-139.
- Lin, H.-L., Lawrence, F. R., & Gorrell, J. (2003). Kindergarten Teachers' Views of Children's Readiness for School. *Early Childhood Research Quarterly*, 18, 225-237.
- Marcon, R. A. (1999). Positive Relationships Between Parent School Involvement and Public School Inner-city Preschoolers' Development and Academic Performance. *School Psychology Review*, 28, 395-412.
- Mashburn, A. J., & Pianta R.C. (2006). Social Relationships and School Readiness. *Early Education and Development*, 17(1), 151-176.
- Maxwell, K., & Clifford, R. (2004). School Readiness Assessment. *Young Children*, 42-49.
- McAllister, C. L., Wilson, P. C., Green, B., & Baldwin, J. (2005). "Come and Take a Walk": Listening to Early Head Start Parents on School-Readiness as a Matter of

Child, Family, and Community Health. *American Journal of Public Health*, 95(4), 617-625.

Meisels, S. J. (1987). Uses and Abuses of Developmental Screening and School Readiness Testing. *Young Children*, 42(2), 68-73.

Miedel, W. T., & Reynolds, A. J. (1999). Parent Involvement in Early Intervention for Disadvantaged Children: Does it Matter? *Journal of School Psychology*, 37(4), 379-402.

Miller, S. A. (1995). Parents' Attributions for Their Children's Behavior. *Child Development*, 66(6), 1557-1584.

NAEYC. (1995). NAEYC Position Statement on School Readiness. Retrieved November 22, 2003, from http://www.naeyc.org/resources/position_statements/psredy98.htm

National Center for Education Statistics, Westat, Educational Testing Service, & Education, U. o. M.-S. o. (2002). User's Manual for the ECLS-K First Grade Public-use Data Files and Electronic Code Book NCES 2002-135.

National Center for Education Statistics. (2001). Fast Facts Retrieved on January 7 2007, 2007, from http://165.224.221.98/fastfacts/dailyarchive.asp?StatSubCat=2&InStats_Year=2001&StatCat=6

National Center for Education Statistics, Westat, Educational Testing Service, & University of Michigan - School of Education. (2002). *User's Manual for the ECLS-K First Grade Public-use Data Files and Electronic Code Book* Retrieved from.

NICHD Early Child Care Research Network. (1999). Child Outcomes When Child-care Classrooms Meet Recommended Guidelines for Quality. *American Journal of Public Health*, 89(1072-1077).

NICHD Early Child Care Research Network. (2000). The Relations of Child Care to Cognitive and Language Development. *Child Development*, 71(4), 960-980.

- Noble, A., & Kedzior, M. (2003). *Full Day Kindergarten*: College of Human Services, Educaiton & Public Policy - University of Delaware. Document Number)
- Okagaki, L., & Frensch, P. (1998). Parenting and Children's School Achievement: A Multiethnic Perspective. *American Education Research Journal*, 35(1), 123-144.
- Peisner-Feinberg, E. S., Burchinal, M. R., Clifford, R. M., Culkin, M. L., Howes, C., Kagan, S. L., et al. (2000). The Children of the Cost, Quality, and Outcomes Study Go to School: Technical Report.
- Phillips, D., Mekos, D., Scarr, S., McCartney, K., & Abbott-Shim, M. (2000). Within and Beyond the Classroom Door: Assessing Quality in Child Care Centers. *Early Childhood Research Quarterly*, 15(4), 474-496.
- Pomerantz, E. M., Moorman, E. A., & Litwack, S. D. (2007). The How, Whom, and Why of Parents' Involvement in Children's Academic Lives: More is Not Always Better. *Review of Educational Research*, 77(3), 373-410.
- Puleo, V. (1988). A Review and Critique of Research on Full Day Kindergarten. *The Elementary School Journal*, 88(4), 427-439.
- Reichman, N. E. (2005). Low Birth Weight and School Readiness. *Future of Children*, 15(1), 91-116.
- Rimm-Kaufman, S. E., & Pianta R.C. (2000). An Ecological Perspective on the Transition to Kindergarten: A Theoretical Framework to Guide Empirical Research. *Journal of Applied Developmental Psychology*, 21(5), 491-511.
- Saluga, G., Scott-Little, C., & Clifford, R. (2000). Readiness for School: A Survey of State Policies and Definitions. *Early Childhood Research and Practice*, 2(2).
- Senechal, M., & LeFevre, J. (2002). Parental Involvement in the Development of Children's Reading Skill: A Five-Year Longitudinal Study. *Child Development*, 73(2), 445-460.
- Sheldon, S. B. (2005). Testing a Structural Equation Model of Partnership Program Implementation and Parent Involvement. *The Elementary School Journal*, 106(2), 171 -

- Shepard, L. A., & Smith, M. L. (1988). Escalating Academic Demand in Kindergarten: Some Non-solutions. *Elementary School Journal*, 89(2), 135-146.
- Shore, R. (1997). *Rethinking the Brain: New Insights into Early Development*. New York. Document Number)
- Slaughter-Defoe, D. (2000). *Early Childhood Development and School Readiness: Some Observations about "Homework" for New Century Working Parents*. Paper presented at the Annual Meeting of the Voices for Illinois Children.
- Slaughter-Defoe, D. T., Nakagawa, K., Takanishi, R., & Johnson, D. J. (1990). Toward Cultural/Ecological Perspectives on Schooling and Achievement in African- and Asian-American Children. *Child Development*, 61(363-383).
- Slaughter, D. T. (1987). The Home Environment and Academic Achievement of Black American Children and Youth: An Overview. *Journal of Negro Education*, 56(1), 3-20.
- Stevenson, H. W., Chen, C., & Uttal, D. H. (1990). Beliefs and Achievement: A Study of Black, White, and Hispanic Children. *Child Development*, 61, 508-523.
- Stipek, D. (2006). No Child Left Behind Comes to Preschool. *The Elementary School Journal*, 106(5), 455-465.
- Stipek, D., Milburn, S., Clements, D., & Daniels, D. (1992). Parents' Beliefs About Appropriate Education for Young Children. *Journal of Applied Developmental Psychology*, 13, 293-310.
- U.S. Department of Education, Office of the Secretary, & Office of Public Affairs. (2003). *No Child Left Behind: A Parents Guide*. Retrieved from <http://www.ed.gov/parents/academic/involve/nclbguide/parentsguide.html>.
- Uphoff, J.K., G., J. (1986). Pupil Age at School Entrance - How Many are Ready for Success? *Young Children*, 41, 11-16.
- US Department of Education. (n.d.). No Child Left Behind: Executive Summary. Retrieved January 7, 2007, from <http://www.whitehouse.gov/infocus/earlychildhood/earlychildhood.pdf>.

- US Department of Health and Human Services, & Administration for Children and Families. (2005). *Head Start Impact Study: First Year Findings*. Washington DC. Document Number)
- Valsiner, J. (1997). *Culture and the Development of Children's Action: A Theory of Human Development*. New York: John Wiley & Sons, Inc.
- West, J., Denton, K., & Germino-Hausken, E. (2000). *America's Kindergartners: Findings from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99, Fall 1998*. Washington, DC: US Department of Education, National Center for Education Statistics. Document Number)
- West, J., & Germino-Hausken, E. (1995). *Approaching Kindergarten: A Look at Preschoolers in the United States*. Washington DC: National Household Education Survey. Document Number)
- Willie, C. V. (1986). The Black Family and Social Class. In R. Staples (Ed.), *The Black Families: Essays and Studies* (3rd ed.). Belmont, CA: Wadsworth.
- Wright, C., Diener, M., & Kay, S. (2000). *Journal of Children & Poverty*. 6, 2, 99-117.
- Zill, N., Collins, M., & West, J. (1995). Approaching Kindergarten. A Look at Preschoolers in the United States. *Young Children*, 51, 35-38.

APPENDIXES

APPENDIX A
INDEPENDENT VARIABLES

Independent Variables	Measures
<p>Type of child care The use of child care the year prior to children entering kindergarten. Originally nine items: 1 - non parental care, 2 - relative care, child's home, 3 - relative care, others home, 4 - non relative care, child's home, 5 - non relative care, others home, 6 - Head Start program, 7 - Center based program, 8 - Two or more programs, 9 - Location varies</p>	<p>PIPRIMPK Recoded into five categories 1 – none 2 – relative care 3 – non-relative care 4 – Head Start 5 – Center based care</p>
<p>Type of School Originally three categories, 1 - Catholic / other religious, 2 - Private 3 – Public school</p>	<p>S2KSCTYP Recoded into two categories 1. Public, and 2 Private/Religious</p>
<p>Type of kindergarten Program</p>	<p>F1CLASS, F2CLASS 1 – Half day kindergarten programs 2 – Full day kindergarten program</p>
<p>Parents' Age Continuous variable, recoded into four categories.</p>	<p>PIHMAGE Current mother (yrs) 1 – (18-23); 2 – (24-29); 3 – (30-35); 4 – (36 and older)</p>
<p>Race/ethnicity From the dummy variables created based on parents report of race/ethnicity. Originally, nine items. 1 - White, 2 - Black, 3 - Hispanic, race specified, 4 - Hispanic, race not specified, 5 - Asian, 6 - Native Hawaiian, 7 - American Indian, 8 - More than 1 race</p>	<p>PIHMRAC Recoded into five categories. 1 – White, 2 – Black, 3 – Hispanic, 4 – Asian, 5 – Other</p>
<p>Level of Education Parents' highest level of education attainment: 1 - 8th grade or less, 2 - 9th – 12th grade, 3 - High School Diploma, 4 - Vocational/Technical Program, 5 - Some college, 6 - Bachelors Degree, 7 - Graduate/Professional Degree, 8 - Master's Degree, 9 - PhD / Professional Degree</p>	<p>WKMOME Responses are coded: 1 – less than HS diploma, 2 – HS diploma, 3 – Some college, 4 – BA degree, 5 – Master's degree 6 – PhD / Profess. degree</p>
<p>Family Composition</p>	<p>PIHFAMIL 1 – Single Parent with 1 child 2 – Single Parent with 2+ children 3 – Dual parent household with 1 child 4 – Dual parent household with 2+ children</p>
<p>Socioeconomic Status Composite variable for ECLS-K using the following components for the creation of the SES variable: parents' educational attainment, parents' occupational prestige, and household income</p>	<p>WKSESQ5 1 Low SES 2 Middle SES 3 High SES</p>

APPENDIX A
INDEPENDENT VARIABLES CONTINUED

Independent Variables	Measures
<p>Views of School Readiness Ordinal variable of parents' response to question, "How important do you believe the following characteristics are for a child to start kindergarten?" .</p>	<p>P1COUNT – child can count P1SHARE – child can share P1PENCIL – child can use pencil P1STILL – child can sit still P1LETTER – child knows letters P1VERBAL – child can communicate Responses coded: 1 – essential, 2 – very important, 3 – somewhat important, 4 – not very important, 5 – not important</p>
<p>Academic Expectations Ordinal variable of parents response to question, "How far is school do you expect child to go?"</p>	<p>P1EXPECT 1-less than high school, 2- graduate from high school 3-2+ years college, 4-Bachelors degree, 5-Masters degree, 6-PhD / Professional Degree</p>
<p>Racial Socialization Parents were asked to respond to, "How often does someone in your family participate in special cultural events or traditions with ethnic background?"</p>	<p>P2ETHNIC Responses coded as: 1 – never 2-almost never 3 – several times a year 4 – several times a month 5 – several times a week or more</p>
<p>Book Reading "How often do you read book?"</p>	<p>P1READBO – read books Responses range from "1-never" to "4-several times a week or more".</p>
<p>Social Activities In the past month has anyone done the following with your child...?"</p>	<p>P2CONCRT – concert Responses coded: 1 yes 2 no</p>
<p>School Related Activities Responses to the following question, "Since the beginning of the school year have you or other adults in your household".</p>	<p>P2PARGRP – Parent teacher conference P2VOLUT – acted as school volunteer Responses coded: 1 yes 2 no</p>

APPENDIX B
PARENT CHARACTERISTICS AND VIEWS OF SCHOOL READINESS SKILLS

Mother's Characteristics	Academic School Readiness Skills		Social-Emotional School Readiness Skills	
	M	SD	M	SD
Age				
18-23	2.07	0.57	1.81	0.44
24-29	2.10	0.60	1.77	0.45
30-35	2.18	0.67	1.78	0.47
36 and older	2.30	0.71	1.84	0.48
	F (76.86)***		F (21.67)***	
Race / Ethnicity				
White	2.27	0.70	1.76	0.48
Black	1.98	0.54	1.79	0.43
Hispanics	2.11	0.58	1.86	0.40
Asians	2.17	0.63	1.97	0.48
Other	2.29	0.64	1.96	0.47
	F (92.26)***		F (66.03)***	
Education Level				
Less than HS	2.12	0.54	1.92	0.39
HS diploma	2.17	0.61	1.80	0.45
Some College	2.15	0.68	1.74	0.47
Bachelor's Degree	2.31	0.73	1.80	0.50
Master's Degree	2.44	0.77	1.80	0.53
PhD / Prof. Degree	2.38	0.83	1.84	0.51
Other	2.24	0.71	1.78	0.48
	F (38.19)***		F (31.34)***	
SES				
Low SES	2.13	0.57	1.85	0.43
Middle SES	2.16	0.66	1.76	0.46
High SES	2.28	0.74	1.78	0.50
	F (77.52)***		F (47.47)***	

APPENDIX C
PARENT CHARACTERISTICS AND ACADEMIC EXPECTATIONS OF CHILD

Mother Characteristics	Less than HS Diploma		HS Diploma		Complete 2+ years of college		Bachelor's Degree		Master's Degree		PhD, MD, or Prof. Degree	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Age^a												
<i>Chi (15)= 331.96***</i>												
18-23	3	0.5	96	15.6	123	19.9	236	38.2	65	10.5	94	15.2
24-29	9	0.3	399	11.6	608	17.7	1472	43.0	389	11.4	549	16.0
30-35	10	0.2	347	7.3	671	14.1	2442	51.4	602	12.7	676	14.2
36 and older	13	0.3	309	6.1	533	10.5	2772	53.6	807	15.9	692	13.6
Race / Ethnicity^b												
<i>Chi (20)= 803.07***</i>												
White	15	0.2	682	8.0	1355	15.8	4670	54.5	1036	12.1	818	9.5
Black	6	0.3	212	11.4	245	13.1	771	41.4	260	13.9	370	19.8
Hispanic	11	0.5	160	7.6	223	10.6	811	38.6	344	16.4	553	26.3
Asian	0	0.0	22	2.8	28	3.5	386	48.9	163	20.7	190	24.1
Other	3	0.6	73	14.3	79	15.5	227	44.4	53	10.4	76	14.9
Educational Attainment^c												
<i>Chi (30)=1987.79***</i>												
Less than HS	12	0.7	375	21.2	261	14.7	610	34.4	171	9.7	342	19.3
HS diploma	16	0.4	542	13.0	879	21.1	1811	43.4	383	9.2	543	13.0
Some College	6	0.2	143	3.8	545	14.5	2049	54.6	503	13.4	506	13.5
Bachelor's Degree	0	0.0	29	1.3	75	3.3	1521	65.9	410	17.8	272	11.8
Master's Degree	0	0.0	2	0.3	12	1.8	299	46.1	209	32.2	127	19.6
PhD / Prof. Degree	0	0.0	1	0.4	2	0.8	78	32.6	63	26.4	95	39.7
Other	1	0.1	62	6.0	173	16.7	533	51.3	131	12.6	139	13.4
Socio Economic Status^d												
<i>Chi (10) =1618.75 ***</i>												
Low SES	27	77.1	865	73.4	958	48.3	1921	27.5	465	24.5	794	38.8
Middle SES	6	17.1	187	15.9	576	29.0	1412	20.2	295	15.6	380	18.6
High SES	2	5.7	127	10.8	450	22.7	3657	52.3	1135	59.9	873	42.6

*= p<.05; **= p<.01; ***= p<.001. ^a N=13,867 (missing 341). ^b N=13,842 (missing 366). ^c N=13,931 (missing 277). ^d N=14,130 (missing 78). Due to missing values the sum of percentages may not equal 100.

APPENDIX D
ASSOCIATIONS OF PARENT CHARACTERISTICS AND PARENT BEHAVIORS

Mother Characteristics	Attend Plays & Concerts		School Volunteering		Attend Parent Teacher Conferences	
	N	(%)	N	(%)	N	(%)
Age	13,462	94.7	13,470	94.8	13,466	94.8
18-23	194	3.7	171	2.5	449	3.9
24-29	1106	21.1	1269	18.5	2717	23.4
30-35	1799	34.4	2481	36.3	4030	34.7
36 and older	2132	40.8	2920	42.7	4412	38.0
	<i>Chi (3) 80.17***</i>		<i>Chi (3) 446.32***</i>		<i>Chi (3) 112.14***</i>	
Race / Ethnicity	13,435	94.6	13,444	94.6	13,440	94.6
White	3419	65.5	5088	74.4	7567	65.3
Black	710	13.6	552	8.1	1284	11.1
Hispanic	639	12.2	738	10.8	1709	14.7
Asian	300	5.7	294	4.3	612	5.3
Other	150	2.9	170	2.5	419	3.6
	<i>Chi (4) 73.95***</i>		<i>Chi (4) 834.90***</i>		<i>Chi (4) 376.65***</i>	
Education Level	13,524	95.2	13,533	95.2	13,529	95.2
Less than HS	418	8.0	387	5.6	1280	11.0
HS diploma	1380	26.3	1648	24.0	3327	28.5
Some College	1539	29.3	2087	30.4	3264	28.0
Bachelor's Degree	1060	20.2	1585	23.1	2085	17.9
Master's Degree	338	6.4	453	6.6	601	5.2
PhD / Prof. Degree	124	2.4	158	2.3	219	1.9
Other	398	7.6	550	8.0	866	7.6
	<i>Chi (6) 311.27***</i>		<i>Chi (30) 1175.05***</i>		<i>Chi (6) 287.63***</i>	
Socio Economic Status	13,714	96.5	13,724	96.6	13,720	96.6
Low SES	1442	27.0	1470	21.2	380.	32.2
Middle SES	1070	20.0	1364	19.7	2416	20.5
High SES	2830	53.0	4092	59.1	5594	47.4
	<i>Chi (2) 287.87***</i>		<i>Chi (2) 1391.34 ***</i>		<i>Chi (2) 309.72***</i>	

APPENDIX E
MEANS OF PARENT CHARACTERISTICS AND PARENT BEHAVIORS

Mother's Characteristics	Reading Books		Discussing Racial/Ethnic Heritage	
	M	SD	M	SD
Age				
18-23	3.05	0.88	2.78	1.34
24-29	3.15	0.83	2.78	1.30
30-35	3.29	0.75	2.70	1.24
36 and over	3.33	0.75	2.74	1.22
F	53.84***		2.31	
Race / Ethnicity				
White	3.37	0.70	2.40	1.12
Black	3.02	0.85	3.23	1.26
Hispanic	3.04	0.89	3.25	1.30
Asian	3.25	0.81	3.49	1.22
Other	3.15	0.84	3.41	1.24
F	140.60***		96.84***	
Education Level				
Less than High school	2.91	0.91	2.92	1.39
HS Diploma	3.15	0.81	2.62	1.27
Some college	3.31	0.72	2.73	1.24
BA Degree	3.48	0.65	2.76	1.13
Master's Degree	3.64	0.59	2.81	1.13
PhD/Prof. Degree	3.54	0.63	3.01	1.22
Other	3.31	0.74	2.76	1.24
F	148.30***		13.75***	
Socioeconomic Status				
Low SES	3.04	0.86	2.77	1.35
Middle SES	3.24	0.75	2.69	1.25
High SES	3.45	0.67	2.73	1.18
F	411.17***		4.42**	