SUMMER LEARNING IN THE CITY: HOW SCHOOLS, FAMLIES, AND NEIGHBORHOODS INFLUENCE URBAN ELEMENTARY SCHOOL STUDENTS' OPPORTUNITIES AND ACHIEVEMENTS

by
Barbara Falk Condliffe

A dissertation submitted to Johns Hopkins University in conformity with the requirements for the degree of Doctor of Philosophy

Baltimore, Maryland
August, 2014

ABSTRACT

It has been well documented that educational inequality grows during the summer months. While this much is clear, researchers, policymakers, and practitioners seek deeper understandings of why low-income children tend to lose academic ground over the summer and what schools can do to intervene. This mixed methods dissertation uses qualitative data to explore how disadvantaged family and neighborhood contexts influence children's summer learning experiences, and uses quasi-experimental techniques to investigate whether and how summer learning programs can curb summer learning loss among low-income urban elementary school students.

For the quantitative analysis, I used propensity score matching methods to identify the effects of enrollment in a Baltimore City summer learning program. Two variants of the program were offered to elementary school students during the summer of 2012: a half-day program featuring a highly structured literacy curriculum, and a full-day program featuring the same curriculum as the half-day program, but also offering students an afternoon of non-academic activities including enrichment, field trips, recreation, and a warm evening meal. I found that students who enrolled in the full-day program had higher fall reading test scores than a matched comparison group of students who did not enroll in any program and higher scores than a comparison group of students who enrolled in the half-day program.

For the qualitative analysis, I conducted semi-structured interviews with 24 parents of first grade children attending two Baltimore City elementary schools located in a single high-poverty neighborhood. I found heterogeneity in how parents thought about summer learning and in the parenting strategies they enacted over the summer. These

differences had important ramifications for children's access to learning resources and exposure to neighborhood risks over the summer. Additionally, I found that parents who valued high-quality summer learning experiences often faced a number of non-monetary constraints that prevented them from creating enriching home environments for their children over the summer and from accessing summer learning programs. Finally, I found that even when not in session, schools could augment their role as compensatory institutions by connecting their students to summer learning opportunities.

Dissertation Advisors: Stefanie A. DeLuca & Stephen B. Plank

Committee Members: Karl L. Alexander, Elizabeth A. Stuart & Marc L. Stein

ACKNOWLEDGEMENTS

I am grateful to many people for their encouragement, guidance, and support during graduate school and the process of writing this dissertation project. First, I would like to thank my advisor, Stefanie DeLuca, for the invaluable learning opportunities she afforded me during graduate school and for all the guidance and support she offered throughout the dissertation writing process. Stefanie's passion for sociology is infectious and her commitment to doing policy-relevant research has been a real inspiration to me.

I am deeply grateful to Stephen Plank for being a mentor to me throughout graduate school and for his consistent encouragement of this project and my career. I have learned a tremendous amount about sociological theory, research design and methodology, and teaching from working with Steve. His insights, feedback, and encouragement during all stages of this dissertation writing process were critical to the project's development and completion.

This study would not have been possible without the willingness of the Baltimore Education Research Consortium (BERC) to collaborate with a graduate student. In particular, I am incredibly grateful to Faith Connolly for her support and guidance throughout the entire process. Faith went out of her way to help me get access to data and worked with me on developing a project that would be of interest to local stakeholders. Along the way, Faith has taught me a great deal about doing policy-relevant research. In addition to Faith, I am grateful to Martha Mac Iver and Linda Olson at BERC who were always willing to answer my many questions about the data.

The work of Karl Alexander and his colleagues with the Beginning School Study (BSS) was a major motivation for this dissertation. I am very grateful to Karl for his invaluable feedback on multiple drafts. Elizabeth Stuart and Marc Stein both offered feedback to me on my dissertation proposal and during my proposal defense. The project was greatly improved because of their involvement. I would like to acknowledge the Institute for Education Sciences' (IES) Predoctoral Interdisciplinary Training Grant to Johns Hopkins University for its financial support.

I am very grateful to Baltimore City Public Schools for giving me access to the quantitative data. In particular, the Office of Achievement and Accountability, was very helpful to me in responding to my requests for data and answering all of my questions. I would also like to acknowledge the twenty-four individuals in my qualitative sample who welcomed me into their homes and generously shared their stories with me. I was in my final trimester of pregnancy during my fieldwork and was overcome by the kindness and well wishes offered by the parents with whom I was fortunate enough to meet with.

I am lucky to have incredible friends and family who have been supportive throughout this dissertation writing process. At JHU, I am very grateful to Siri Warkentien, Wei-ting Chen, Stephanie Slates, Elizabeth Talbert, and Jennifer Carinci for their friendship and for their feedback on drafts along the way. I am fortunate to have a very supportive family. The unconditional love and support of my parents and my two wonderful sisters have carried me through this project and countless others. I am also grateful to my aunt Ellen who offered lots of advice and support along the way. The Fleck family has also provided all kinds of support these past five years for which I am

very thankful. I'm particularly grateful to Alexine for being such an amazing sounding board and for proofreading multiple drafts.

This dissertation is dedicated to Matthew. I could not have asked for a more supportive, patient, and kind partner in this graduate school journey. Matthew, your commitment to public education, your artful approach to teaching, and your unwavering support of and belief in your students inspire me every day. Thank you for always believing in me, for challenging me, for reminding me to take breaks, and for loving me no matter what. Cecilia—it's hard to believe that you were just an idea at the outset of this project. Thank you for providing the best motivation for staying focused on my work—getting to play with you!

TABLE OF CONTENTS

Chapter One: Introduction…….....1

Background……3

Study Overview…….6

Organization of Dissertation……..9

Chapter Two: Literature Review……11

The Seasonal Pattern of Inequality……..12

Summer Learning Programs ……...27

Discussion……34

Chapter Three: Research Design & Methodology……..…….....37

Quantitative Data & Methods……..38

Qualitative Data & Methods……71

Chapter Four: Summertime in the City: How Parents Manage Resources & Risk Over The Summer. ……..83

Results……..84

Conclusion…….117

Chapter Five: What Does It Take To Curb Summer Learning Loss Among Low-Income Urban Elementary School Students? ……124

Descriptive Analysis……..125

Propensity Score Matching……136

Treatment Effect Estimates……....144

Conclusion…….153

Chapter Six: Selecting Summer: How Low-Income Families Navigate Choice in the Summer……..163

Context……...165

Results……...167

Conclusion……195

Chapter Seven: Conclusion……202

Summary……...….202

Limitations……207

Implications For Research & Policy……..209

Tables……218

Figures……232

References……..237

Appendix……256

CV……..266

LIST OF TABLES

Table 3.1: Comparison of final analytic sample to those dropped from sample because of missing data.....218

Table 3.2: Characteristics of two sampled schools and all other elementary schools….219

Table 4.1: Background characteristics of analytic subsample……220

Table 4.2: Typology of summertime parenting in high-poverty contexts……...221

Table 5.1: Characteristics of student sample …….....222

Table 5.2: Characteristics of schools attended by sample ……..223

Table 5.3: Mean DIBELS scores, by season…….....224

Table 5.4: DIBELS score piecewise growth model for academic and summer learning of first and second grade students…….....225

Table 5.5: Characteristics of analytic sample, by enrollment status.....226

Table 5.6 School and neighborhood characteristics of schools that hosted a summer program and those that did not……...…….....…227

Table 5.7: Characteristics of students who enrolled, by program type……228

Table 5.8: Model for Fall 2012 Oral Reading Fluency Score (ORF) in three matched samples.....…….....229

Table 5.9: Sensitivity analysis for the effects of the full-day program on students who enrolled……...…….....230

Table 6.1: Summer learning programs most accessible to qualitative sample…...…....231

LIST OF FIGURES

Figure 3.1: Map of summer 2012 Read to Succeed sites…….....……..232

Figure 5.1: Seasonal pattern of achievement in analytic sample, by family income.....233

Figure 5.2: Predicted achievement trajectory for two hypothetical students who differ only by their family income……...…….……234

Figure 5.3: Standardized biases of all covariates before and after implementation of propensity score matching routine……...……...…235

CHAPTER ONE

INTRODUCTION

Achievement gaps between children born to high-income parents and those born into low-income families have grown substantially. In his recent investigation of changes in income achievement gaps over time, Sean Reardon (2011) estimated that the reading achievement gap between low- and high-income students has increased by over 40% since the 1980s. According to analyses of National Assessment of Education Progress (NAEP), 80% of the nation's fourth grade public school students who were eligible for free or reduced priced meals were not reading at a proficient level in 2013 (The Annie E. Casey Foundation, 2014). Donald Hernandez's (2011) analysis of National Longitudinal Survey of Youth (NLSY79) found that the high school dropout rate among children who were not proficient readers by third grade was four times greater than the dropout rate among proficient third grade readers. Poor children with low reading skills appear to be at the greatest risk of high school dropout. Hernandez (2011) also found that 26% of poor students who were not proficient third grader readers did not graduate from high school whereas only nine percent of non-poor students who had low reading skills in third grade had failed to graduate by the age of 19.

In the public discourse, schools are considered the central players in the effort to reduce educational inequality; they are also often maligned for the failure to do so. Since the publication of *A Nation at Risk,* the education reform movement has rallied around the notion that low academic standards, poor teacher quality, and a lack of accountability in schools--particularly those serving poor and minority students--are to blame for the decline in American competitiveness and the persistence of achievement gaps between

rich and poor students (Ravitch, 2010). Notably, however, research on local and nationally representative datasets has demonstrated that achievement gaps are present *before* children enter formal schooling and grow primarily over the summer, when schools are generally *not* in session (Alexander, Entwisle & Olson, 2007; Downey, von Hippel & Broh, 2004; Heyns, 1978). This seasonal pattern of achievement suggests that inequality in children's non-school environments (family and neighborhood contexts) exacerbates educational inequalities and that schools "compensate" for these disparities (Alexander et al., 2007; Downey et al., 2004; Heyns, 1978).

Analyses of seasonal testing data from the Beginning School Study (BSS), which followed a sample of Baltimore City elementary school students for over two decades, demonstrated just how consequential inequalities in children's non-school environments are (Alexander et al., 2007; Alexander, Entwisle, & Olson, 2014; Entwisle, Alexander, & Olson, 1997). Alexander and colleagues (2007) found that two-thirds of the achievement gap observed between low- and high-socioeconomic status (SES) students in ninth grade was attributable to accumulated summer losses over the course of elementary school. The authors also estimated the effects of out-of-school time learning gaps (learning before formal schooling begins and during the summer months) on the likelihood of students being placed in a college-track for high school, graduating from high school, and enrolling in a four-year college. They concluded that the differences in children's learning before formal schooling begins and during the summer months of elementary school, "reverberate to constrain later high school curriculum placement, high school dropout, and college attendance" (Alexander et al.,2007: p. 175).

While the seasonal pattern of inequality and its implications for our understanding of the role of schools as compensatory institutions seems abundantly clear (Alexander et al., 2007; Downey et al., 2004; Heyns, 1978), policymakers and practitioners want to know why low-income children tend to lose academic ground over the summer and what can be done about it. This mixed methods dissertation uses qualitative data to explore how disadvantaged family and neighborhood contexts influence the summer learning experiences of low-income elementary school students and uses quasi-experimental techniques to investigate whether and how summer school programs can curb summer learning loss among low-income urban elementary school students. Finding from this research offer new hypotheses regarding why low-income elementary school children tend to lose academic ground over the summer months and what can be done to reverse the trend.

Background

A rich tradition of research has noted that children's academic achievement is directly influenced by the multiple and overlapping social spheres in which they spend their time —family, school, and neighborhood contexts (Bronfenbrenner, 1979; Duncan & Raudenbush, 1999; Epstein, 1987). For most of the year, all three contexts are simultaneously contributing to children's achievement. As a result, the independent effect of each is difficult to discern using cross-sectional estimates of achievement or even measures of annual growth. A key insight of the early sociological studies of summer learning conducted in Atlanta (Heyns, 1978) and Baltimore (Entwisle et al., 1997) was that measuring student learning over the summer is one way to isolate the effect that the non-school environment has on student learning. These studies of the seasonal pattern of

achievement demonstrated that inequalities in students' non-school environments widened achievement gaps between low- and high-SES students and that the resources provided by schools narrowed these gaps. Analyses of the seasonal pattern of achievement in nationally representative data confirmed the seasonal pattern of the socioeconomic achievement gap noted in the early summer learning research. Downey and colleagues (2004) also found that the total amount of variation in students' learning trajectories that is *unexplained* by student background (gender, race, and SES) also increased over the summer between kindergarten and first grade, and decreased during the school year. As a result, they concluded that the non-school environment not only exacerbates inequalities between, but also within, social classes.

Quantitative and qualitative research has investigated why inequality grows over the summer by describing social class differences in family social and cultural capital, children's summer activities, and parents' attitudes about summer learning (Burkam, Ready, Lee, & LoGerfo, 2004; Cheadle, 2008; Chin & Phillips, 2004; Entwisle et al., 1997; Gershenson, 2013; Heyns, 1978). For example, high-SES students are more likely to take summer trips, to engage in literacy activities over the summer, and to participate in enrichment and sport activities over the summer than low-SES students are. Notably, however, Burkam and colleagues (2004) found that very few of the summer learning experiences measured by the Early Childhood Longitudinal Study, Kindergarten Class (ECLS-K) survey predicted how much or how little a nationally representative sample of children learned between the summer of kindergarten and first grade. They speculated that characteristics of children's family and neighborhood environments that are not easily measured in a survey like the ECLS-K are what really make a difference to

children's achievement when school is not in session. Clearly, if we want to understand why low-SES students are vulnerable to summer learning loss, we need to deepen our understanding of how disadvantaged family and neighborhood contexts interact to influence children's summer learning experiences.

One logical implication of the findings regarding the seasonal pattern of educational inequality is that low-income elementary school children should attend summer learning programs over the summer so that they have the opportunity to catch-up with their more advantaged peers. Researchers have found that, on average, summer learning programs that include an academic component have a positive effect on children's literacy skills (Cooper , Charlton, Valentine, Muhlenbruck, & Borman, 2000; Kim & Quinn, 2013). However, the types of summer learning programs available to elementary school children vary greatly. As has been the case for decades, many school districts offer summer school programs that feature academic instruction only (National Summer Learning Association, 2010). With the increased attention to the issue of summer learning loss, more and more public and private agencies have also developed free or reduced-cost summer learning programs that aim to support low-income students' academic achievement over the summer (National Summer Learning Association (NSLA), 2010).

Middle-and high- SES children are not simply doing reading, writing and, arithmetic over the summer; they are engaged in enrichment activities, recreation, trips, and cultural events (Chin & Phillips, 2004; Burkam et al., 2004). Therefore, we might imagine that non-academic activities might also curb summer learning loss among low-income students. In discussing the implications of their findings regarding the seasonal

pattern of inequality in their Baltimore sample, Entwisle and colleagues (1997) recommend:

> One possibility worth trying is to design summer programs for first and second grade children that contain some of the ingredients of life in better-off families and neighborhoods—a variety of activities, away from classrooms, where children can often choose what they wish to do, and with adults who are not cast in the role of 'teacher' but rather in the role of adult companions who have a sincere interest in and liking for the child. (pp. 60)

Although supplementing an academic summer school program with camp-like activities is increasingly common (NSLA, 2010), researchers have not yet identified whether and how non-academic activities intended to support student non-cognitive skill development influence academic achievement over the summer. Identifying the effect of academic *and* non-academic summer program resources is critical for program developers who are increasingly required to call upon evidence-based strategies when proposing summer learning programs to private or public funding agencies (NSLA, 2013). Investigating whether and how non-academic summer program resources support students' academic achievement over the summer is also important to policymakers and researchers who want to understand the role that non-academic resources can play in efforts to reduce educational inequality.

Study Overview

This dissertation seeks to fill the gaps in research literature that are described in the previous section. The goal of the qualitative analysis is to describe how the resources and risks present in high-poverty neighborhood and family contexts influence children's

summer learning experiences. To achieve this objective, I conducted semi-structured interviews with parents of first grade children attending two Baltimore City Public Schools neighborhood elementary schools (referred to as City Schools hereafter) in a single high-poverty neighborhood. By examining variation in low-income African American children's summer learning experiences, this study puts forth new hypotheses about how family, school, and neighborhood environments interact over the summer to exacerbate inequality in children's educational experiences and outcomes.

Although the families in my sample all had limited material resources, I found significant heterogeneity in how parents' thought about summer learning and in the parenting strategies they enacted over the summer. These differences had important ramifications for children's access to learning resources and their exposure to neighborhood risks over the summer. Additionally, I found that parents who valued high-quality summer learning experiences often faced a number of non-monetary constraints, such as erratic work schedules, challenging family dynamics, and residential instability. These variables often prevented parents from creating enriching home environments for their children over the summer and from enrolling their children in a free summer learning program. Finally, I found that even when not in session, schools could augment their role as compensatory institutions by reaching out to their students' parents to "broker" students' enrollment in summer learning opportunities (Small, 2009). Although seemingly critical to the summer learning experiences of many families in my sample, I found the school was not an effective broker for all (Small, 2009).

The objective of the quantitative analysis in this dissertation was to identify the effects of academic and non-academic summer school resources on the achievement of a

predominantly low-income African American sample of elementary school children. In this dissertation, I refer to features of the summer school environment that are intended to support students' cognitive skills as "academic resources," which include resources like books, academic curriculum, and teachers trained in standards-based instruction. I refer to features of the summer school environment that are intended to support students' social, emotional, and physical development (non-cognitive skills) as "non-academic resources." Non-academic resources include: aspects of the school curriculum designed to foster students' social and emotional development, free meals, field trips, enrichment lessons, and the emotional support students receive from teachers, staff, and administrators. For children living in high-poverty neighborhoods, the fact that summer learning programs take students out of potentially stressful and dangerous neighborhoods for a good portion of their day can also be considered a non-academic summer school resource.

Using propensity score matching methods, I evaluated two variants of a summer learning program that served a predominantly low-income sample of urban elementary school students in 2012. At eleven of the program sites, enrollees were offered a half-day academic program ("Read to Succeed"). At another ten sites, enrollees were offered a full-day program ("Read to Succeed-Plus!") that featured the same academic curriculum as the half-day program, but also offered students an afternoon of non-academic activities including enrichment, field trips, recreation, and a warm evening meal. I estimated the effects of both programs on a range of student learning outcomes and isolated the effects of the non-academic resources. I found that students who enrolled in the full-day program had higher fall reading test scores than a matched comparison group of students who did not enroll in any program. They also had higher scores than a matched comparison group

of students who enrolled in the half-day program. The scores of students who enrolled in the half-day program were not significantly different from those of a matched comparison group of students who did not enroll in any program.

Organization of Dissertation

Chapter Two of this dissertation summarizes the research literature that motivates this project and describes how this dissertation will address gaps in this body of research. First, I summarize the existing evidence on the seasonal pattern of inequality. Next, I review the research that speaks to the questions of why inequality between and within social classes grows over the summer. Finally, I describe the evaluation literature on whether and how summer learning programs can curb summer learning loss. Chapter Three reports the quantitative and qualitative data and methods used in this dissertation project. Chapter Four describes how a sample of low-income parents of first grade students who attended elementary school in a high-poverty neighborhood managed the resources and risks present in their family and neighborhood environments to create their children's summer learning experiences. The objective of this chapter is to identify the possible mechanisms through which family and neighborhood contexts interact to constrain and/or support low-income elementary school students' summer learning. Chapter Five reports the results of an evaluation of the two variants of the summer learning program described in the previous section. The objective of this chapter is to estimate the effect that academic and non-academic summer school resources have on low-income Baltimore City students' summer learning. As a result, I am able to comment on the ways in which the school context can compensate for or complement the influential features of the family and neighborhood environment that are identified in

Chapter Four. Chapter Six describes how low-income elementary school parents in high-poverty contexts make decisions about whether to enroll their children in the summer learning opportunities available to them (including the program evaluated in Chapter Five). The goal of this chapter is to elucidate how school, family, and neighborhood contexts interact to influence whether low-income elementary school students access summer learning resources that are intended to curb summer learning loss. Chapter Seven concludes the dissertation. Implications for research and policy are discussed.

CHAPTER TWO

LITERATURE REVIEW

Sociological research on seasonal patterns of inequality began when Barbara Heyns (1978) used seasonal testing data in Atlanta, Georgia to demonstrate that inequality grows much faster over the summer than it does during the school year.[1] Doris Entwisle, Karl Alexander, and colleagues (1992; 1997; 2001; 2007) continued this line of research with their sample of children in Baltimore City who started first grade in 1982. Through their longitudinal seasonal testing data and survey data, they were able to show that children's non-school environments strongly influence learning before formal schooling begins and when school is not in session (Entwisle et al.,1997). In recent years, scholars have used the seasonal testing data in the Early Childhood Longitudinal Study, Kindergarten Cohort (ECLS-K) to describe the seasonal pattern of inequality in a nationally representative dataset of very young children (Downey et al., 2004) and to identify other predictors of summer learning loss (Burkam et al., 2004; Borman & Benson, 2010; Cheadle, 2008). Taken together, this body of research has made abundantly clear that there is something about children's non-school environments that exacerbates inequality between and within social classes. Qualitative research suggests that differences in parental monetary resources help to explain some of the social class differences in children' summer learning experiences (Chin & Phillips, 2004). Quantitative research provides some evidence that differences in family social and cultural capital also play a role (Burkam et al., 2004; Cheadle, 2008; Entwisle et al., 1997;Slates, Alexander, Entwisle, & Olson, 2012). As my review of the literature will

[1] As Heyns (1978) acknowledged, she was not the first to document summer learning loss (see for example Murnane (1974)). However, her study was the first to use seasonal testing data to investigate the seasonal pattern of inequality.

demonstrate, more research is needed to identify exactly how disadvantaged family and neighborhood contexts often lead to summer learning loss. One of the objectives of the qualitative analysis featured in this dissertation is to fill that gap in the literature.

Motivated by the robust findings regarding the seasonal pattern of achievement, sociologists and other researchers have conducted numerous evaluations to see whether summer programming can curb summer learning loss. However, as I will demonstrate, most of this research has focused on the role of academic summer resources and has not yet explored the impact that non-academic summer school resources might have on students' summer learning. Additionally, summer program evaluations have not used qualitative data to explore the process of selection into these programs. This dissertation seeks to fill these gaps in the literature. In so doing, I develop new theories to explain why there is such inequality in children's summer experiences and achievements and how summer learning programs and policies can intervene.

The Seasonal Pattern of Inequality

In their meta-analysis about summer learning, Cooper and colleagues (1996) found that, on average, all students returned to school after summer vacation having lost some of the skills they learned in the prior school year. While this average loss is worrisome to those who are concerned about the low levels of achievement among school-age children in general, summer learning loss would not have negative implications for issues of social inequality if all children learned or lost the same amount of skills over the summer. However, researchers have found that middle and high income students tend to maintain or gain skills over the summer while low-income students tend to experience a decline in measured skills or aptitude. Average summer learning loss is

generally found to be greater in mathematics than in literacy, though there is stronger evidence of the seasonal pattern of inequality in children's reading skills (Cooper et al., 1996). That is, all children tend to lose math skills over the summer, but disadvantaged children are more likely, to lose reading skills (Cooper et al., 1996). It serves to reason that parents of *all* social classes will probably have difficulty facilitating mathematics learning in the absence of school; however, highly educated and well-resourced parents are equipped to facilitate their children's literacy skills over the summer (Bryk & Raudenbush, 1988; Murnane 1975).

Sociological research on the seasonal pattern of inequality has measured inequality in a number of different ways. The most common approach that researchers have taken is to compare the summer and school year learning of students from low-SES and high-SES families (Alexander, Entwisle, & Olson, 2001; Downey et al., 2004; Entwisle et al., 1997; Heyns, 1978). In these studies, SES is most often a composite measure of family income and other parent characteristics such as educational level and occupational status. These studies consistently show that low-SES students keep up (or nearly keep up) with their higher SES peers during the school year, but fall behind over the summer. Notably, analyses of nationally representative samples have found that differences between black and white students in their rate of literacy skill acquisition is not significant during the summer (controlling for family SES), but is significant during the school year (Condron, 2009; Downey et al., 2004). This finding suggests that although schools may temper inequalities due to socioeconomic status, they exacerbate racial inequalities.

The dominant interpretation of this seasonal pattern of inequality between high- and low-SES students is that schools are compensatory institutions; that is, schools compensate for the disadvantages that low-SES students tend to face in their non-school environments. As a result, in the absence of compulsory schooling, achievement gaps between low and high-SES students would be even wider (Downey et al., 2004). Condron's (2009) investigation of school year learning gains among a nationally representative sample of first grade students confirms the conclusion of the summer learning research that inequality between low- and high-SES elementary school students in their literacy acquisition is primarily due to inequalities faced in children's non-school environments. Condron (2009) found that social class differences in the rate of children's literacy skill acquisition during the school year could be completely explained by non-school factors such as student health, behavior, and a measure of how often a student reads books outside of school.

In their analysis of the seasonal pattern of inequality in the ECLS-K data, Downey and colleagues (2004) expanded the measure of student disadvantage beyond socioeconomic status and race. They conceptualized students' performance level at the start of schooling (achievement test scores at the start of kindergarten) as an additional measure of student disadvantage. They found that children who entered kindergarten at high reading levels tended to learn at equal rates to their lower achieving peers during their kindergarten and first grade school year, but they learned more during the intervening summer, suggesting that "schools rein in the initial advantages of some students" and that non-school environments exacerbate these differences (Downey et al, 2004: p. 623).

Downey and colleagues (2004) also broadened the operationalization of inequality in two ways. First, they measured seasonal inequality by comparing the total variation in students learning rates during the summer and school year. They found that learning rates were "more equal (less variable)" during the school year than they were during the summer (Downey et al., 2004: 623). Second, they investigated the "unexplained" sources of variation in learning rates (residuals) that were not accounted for by the student and family background characteristics. They found that the portion of the total variance that was unexplained by student and family background characteristics was much lower during the school year than it was during the summer months. Schools do not only temper inequality between students of different socioeconomic status but also temper inequalities among students of similar family backgrounds (Downey et al., 2004). Researchers have not yet explored why it is that inequalities among students of similar family backgrounds grow over the summer months. Through qualitative analysis of the summer learning experiences of a high-poverty sample of African American families with first grade students, this dissertation identifies potential mechanisms to explain this phenomenon.

The dominant explanation for the seasonal pattern of the socioeconomic achievement gap is Entwisle, Alexander, and Olson's (1997) "faucet theory"-- the resources necessary to support students' academic development are like water flowing from a faucet. During the school year, all children have an equal opportunity to learn because the school resource faucet distributes resources to all children equally. However, "when school is not in session, children whose families are poor stop gaining because for them the faucet is turned off" (Entwisle et al., 1997: p. 37). In contrast to low-SES

households where the "faucet is turned off" over the summer, the resource faucet is more likely to stay on in the homes of high-SES children whose parents are able to use their economic, social, and cultural resources to provide opportunities to learn.

To identify how summer learning programs could enhance their compensatory function, we need to know what resources are missing from some low-income home environments during the summer months. Additionally, we know that not all low-SES elementary school children lose ground over the summer (Downey et al., 2004; Slates et al., 2010) suggesting that for some low-SES students, the "resource faucet" remains on despite the fact that their parents have limited economic capital and the school is generally not providing them with services. More research is needed to identify how and why some low-SES families are able to keep the faucet flowing during the summer months while others are not. The qualitative data and analysis featured in this dissertation aims to achieve that objective.

Sociologists have attempted to understand the causes of summer learning loss by identifying the predictors of summer learning loss via quantitative survey data. This body of research has consistently found that measures of family and neighborhood socioeconomic status predict summer learning loss (Benson & Bornman, 2010; Burkam et al., 2004; Entwistle et al., 1997; Heyns, 1978) Additionally, quantitative and qualitative researchers have attempted to explain *how* family SES influences summer learning by investigating the influence that children's summer activities, parental expectations, children's exposure to stress, and family social capital have on how children spend time over the summer and how much or how little they learn (Burkam et al., 2004; Borman, Benson, & Overman, 2005; Chin & Phillips, 2004; Entwisle et al.,

1997; Heyns, 1978) . The next section of this chapter provides greater detail on this body of research and makes clear the gaps in the existing literature.

Why Do Achievement Gaps Between Social Classes Widen Over the Summer?

Research on the relationship between family socioeconomic status and summer learning is consistent with the research documenting the relationship between parental socioeconomic status and children's academic achievement more broadly (see for review Brooks-Gunn & Duncan, 1997; Reardon, 2011). In local and nationally representative samples, scholars have demonstrated that parental socioeconomic status is positively related to children's summer learning (Alexander et al.,2001; 2007; Burkam et al., 2004; Heyns, 1978). For example, Alexander and colleagues (2001) found that although all children learn less during the summer than they do during the school year, low-SES children learn much less than their more advantaged peers. Using nationally representative data (ECLS-K), Burkam and colleagues (2004) confirmed that the influence of family SES on summer learning is not unique to unique to the Baltimore and Atlanta samples as they identified the same pattern in nationally representative data. They found that, on average, middle-SES students maintained their literacy skills during summer between kindergarten and first grade, low SES students fell behind, and high SES students pulled ahead.

Just as family socioeconomic status predicts summer learning loss, so too does neighborhood socioeconomic status. In their analysis of the effects of neighborhood socioeconomic status on children's learning in a nationally representative sample of young children, Benson and Borman (2010) found that even after controlling for family income, neighborhood socioeconomic status influenced children's achievement before

schooling begins (at kindergarten entry) and during the summer. In this way, a low-income child living in a high-poverty neighborhood is doubly disadvantaged over the summer by their family and neighborhood contexts. Importantly, the influence of neighborhood status was not significant during the school year suggesting that, "when school is in session, it supersedes the influence of other contexts" (Borman & Benson, 2010: 1373). Borman and Benson's (2010) findings are consistent with research on the Baltimore sample, which found that neighborhood characteristics influenced summer, but not school year learning (Entwisle et al., 1997).

Family SES and summer activities. What is it about socioeconomically advantaged children's non-school environments (family and neighborhood contexts) that promote summer learning? Quantitative researchers have tried to answer this question by investigating differences between low- and high-SES families in terms of the quantity and quality of educational resources in the home and in the types of out-of-school time activities in which elementary school children are enrolled. Using nationally representative data on young children, researchers have found that parental income is related to children's access to learning related items and out-of-school time activities (Cheadle, 2008; Covay & Carbonaro, 2008; Kaushal, Magnuson & Waldfogel, 2011). Similarly, the research on summer learning loss has found that higher SES families are more likely to enroll their children in summer activities and take them to the library (Burkam et al., 2004; Entwisle et al., 1997; Heyns, 1978).

The social class gaps in summer activities are particularly large for non-academic activities like television viewing, summer trips, and enrichment lessons. For example, Burkam and colleagues (2005) found that low-SES children spend twice the amount of

time watching television as high-SES children do. Similarly, Gershenson (2013) found that during the summer months all children increased their television viewing, but this increase was significantly greater in low-income households. Burkam and colleagues (2005) also found significant differences between social classes in activities that usually require investment of monetary resources like swim lessons, dance lessons, sports teams, and trips.

Qualitative research on middle and working class confirms that higher SES children are more likely to have access to high-quality out-of-school time (summer and after-school) learning opportunities (Bennett et al., 2012; Chin & Phillips, 2004). Both studies found that class-based differences in students' activity participation were related to class differences in economic capital and *not* to differences in the extent to which parents value out-of-school time learning opportunities. Tiffany Chin and Meredith Phillips (2004) spent time with a diverse sample of families during the summer between children's fourth and fifth grade school year. They found that lower SES parents wanted to enroll their children in enriching summer learning experiences but could not afford those types of activities or were constrained by a lack of transportation and inflexible job schedules. Through their focus groups and interviews with a diverse sample of urban elementary school parents, Pamela Bennett and colleagues (2012) found that working class parents relied on schools to provide out-of-school time learning opportunities. Although these researchers did not examine SES gaps in summer learning activity participation, they speculated that working class parents' reliance on the school to provide their children with after-school enrichment activities would make it challenging for these parents to engage their children in educationally enriching activities over the

summer. More research on how low-income parents make decisions about what their children do over the summer is clearly needed. The qualitative component of this dissertation seeks to fill this gap in the literature.

Studies have shown that concerns about neighborhood safety also influence children's out-of-school time activity participation (Bennett et al., 2012; Coulton & Irwin, 2009; Furstenberg et al., 1999). Bennett and colleagues (2012) found that working class parents concerned about neighborhood safety saw involvement in afterschool programs as a way to keep their children safe. On the other hand, in their fieldwork with a diverse sample of families living in different types of Philadelphia neighborhoods, Furstenberg and colleagues (1999) found that families in high-poverty neighborhoods were less likely to be involved in the neighborhood themselves and that their children were also less likely to enroll in extracurricular community activities than children in more advantaged neighborhoods. This lack of neighborhood involvement was often a result of parents' concerns about neighborhood safety and a belief that the best way to keep children safe was to keep them inside the home. Although a number of studies have documented this pattern of preventative parenting in high-poverty neighborhoods (Jarret, 1997), research has not yet considered whether or not preventative parenting changes over the summer. Also, research has not yet considered whether parents think about summer *school* programs in the same way that they think about other out-of-school time programs. The qualitative study in this dissertation addresses these questions by talking to parents of first grade students who chose to enroll their children in summer learning programs and parents of first grade student swho did not enroll their children in programs.

With the exception of family literacy activities and library use, which have been identified in local (Heyns, 1978) and national samples (Burkam et al., 2005) as having independent effects on summer learning, social class differentials in summer activities and home resources generally do not explain a significant portion of variation in children's summer literacy achievement (Burkam et al, 2004; Heyns, 1978). Burkam and colleagues (2004) speculated that their inability to explain how social class "translates" into summer learning may be due to the fact that the types of summer activities typically reported on survey "may reflect only the intentional influences of social class on children's summer learning (Bourdieu 1986)" and that "the unconscious and inadvertent influences" are what really make a difference (p. 23). They noted that these inadvertent influences may include things like housing conditions, parenting practices, residential mobility, employment, and health care, which are all related to social class and academic achievement. Even though these conditions exist throughout the year, "they may be more important during the summer because of the lack of additional resources and regularity in children's lives when children are not in school" (Burkam et al., 2004: p. 23). The qualitative analysis of this dissertation specifies some of these "inadvertent influences" and the ways in which they influenced the summer learning experiences of low-income first grade students.

Why Does Inequality Within Social Classes Grow Over the Summer?

Considerable attention has been paid to the summer learning SES gap. However, as Downey and colleagues (2004) noted, over 90% of the variation in children's summer learning rates is not explained by family SES, gender, or race. This high proportion of unexplained variation suggests that summer learning rates reflect monetary *and* non-

monetary resources in a child's home environment. In the paragraphs that follow, I summarize the research literature on the relationship between non-monetary family resources and children's summer learning.

Entwisle and colleagues (1996; 1997) found that parental psychological resources were as important to children's achievement trajectories as parental economic resources (Entwisle and Alexander, 1996). They noted that parental psychological resources were highly correlated with family SES, but also had independent effects on students' achievement trajectories, suggesting that parental psychological resources confer benefits to students even in the absence of financial resources.

> Perhaps the major contribution so far made by the Beginning School Study is the finding that parents' expectations and other psychological resources, which are higher or more plentiful in families of higher socioeconomic status, bear fruit mainly in summer when school is closed. The 'psychological capital' of the family, which can be independent of its social or financial capital, is a key parental resource for children's achievement (Entwisle et al.1997, p.153).

Some sociologists refer to parents' attitudes toward their child and style of interaction with their child as an expression of parental cultural capital (Farkas, 1996; Swidler, 1986). Parents' cultural capital promotes students' academic achievement because it instills habits, beliefs, and styles (non-cognitive traits) that are rewarded in school and the labor market (Farkas 1996, 2003; Lareau, 2003). Cheadle (2008) used quantitative data from the ECSL-K survey to develop a measure of family cultural capital and to investigate its relationship with children's summer learning. His measure of cultural capital was an attempt to quantify Annette Lareau's (2003) concept of "concerted

cultivation," which is the process through which middle class families in her ethnographic sample transmitted values, behaviors, and dispositions that served their children well at school. Cheadle's (2008) measure of concerted cultivation included parent and child activities, family conversations at the dinner table, and parental involvement at school since these activities are likely to foster the types of values and dispositions that Lareau (2003) observed in her middle class sample. He found that concerted cultivation explained a portion of the socioeconomic differences in children's reading ability at kindergarten entry, but not during the summer months. Notably however, his measure of family cultural capital had a positive influence on children's summer learning rate in mathematics even after controlling for family socioeconomic status.

In recent research, Slates and colleagues (2012) considered the relationship between within-family social capital and low-SES Baltimore City school children's summer learning. Their measures of social capital included structural forms of social capital, such as having a two-parent home, and functional forms of social capital, such as the frequency with which a parent read to his/her child and the parent's expectations for his or her child's school conduct. They found that low-SES children who achieved higher than expected summer learning gains in reading over multiple summers were more likely to be living in households where within-family social capital was at levels on par with or higher than the mean levels observed in the middle and high-SES sample. This finding confirms that when within-family social capital is high, it can translate into summer learning gains even when a parent has a low level of education and the household has few economic resources.

Nearly two decades after the Beginning School Study data was collected, Geoffrey Borman and colleagues (2005) investigated the relationship between measures of family social capital, children's summer activity participation, and summer learning among a sample of Baltimore City elementary school students attending high-poverty elementary schools. They found that their measure of family social capital (how involved the family was with a church) predicted children's attendance in a free summer learning program (Teach Baltimore). However, among those children who did not attend a summer learning program, measures of family social and cultural capital were not significantly related to how much or how little children learned over the summer. Taken together, the findings from these two Baltimore studies suggest that family social capital directly and indirectly affects the summer learning experiences and achievements of low-SES Baltimore city elementary school students. More research is needed to understand how low-SES parents develop the types of social capital that support their children's access to summer learning opportunities as well as other processes that explain variability among low-SES families in their proclivity to take advantage of summer learning opportunities.

Family dynamics and summer learning. The research reviewed in the previous section investigated how parental psychological resources and social capital promote summer learning. However, we might also expect that educational inequalities grow over the summer because there is something about some low-SES children's non-school environments that negatively influences children's learning. The notion that the level of stress in the home environment influences child well-being is supported by a long line of research in the child development and sociology of family research literatures (see for

review Conger, Conger & Martin, 2010). The family stress model (FSM) attempts to identify the mechanism through which socioeconomic stress influences child well-being. This model, developed in the field of psychology but often invoked by sociologists, argues that: "economic disadvantage triggers feelings of economic pressure, which in turn lead to psychological distress in parents that ultimately negatively impacts child development" (Barnett 2008: 146). Most family stress models posit that parent's economically-induced psychological distress impacts children because it strains family relationships and further depletes family resources. These increasing levels of familial discord and economic strain lead to even greater parental distress and the onset or intensification of negative parenting practices (Conger et al., 2010). This body of research suggests that a high level of psychological stress in low-income households and the effects that this stress has on parenting practices may explain some of the gap between low- and high-income children in their cognitive and non-cognitive skills.

Children are more likely to be affected by family dynamics during the summer, when they spend significant amounts of time at home, than they are during the school year (Downey et al., 2004; Entwisle et al., 1997). As Entwisle and colleagues (1997) speculated, "in addition to serving as a forum for learning, the school may also serve as a social environment that neutralizes or buffers the stress in the home" (Entwisle et al., 1997: p. 54). In this way, family stress and negative parenting practices are likely to have more of an impact on the well-being of school-age children during the summer than they do during the school year; thus, parenting practices may help to explain inequalities in children's summer learning.

There is a rich tradition of research on differences between socio-demographic groups in parenting practices and on the consequences that specific parenting practices have on youth outcomes (Amato & Fowler, 2002; Baumrind, 1972, 1991; Burton & Jarrett, 2000; Lareau, 2003). Some researchers have found that the racial and socioeconomic differences in parenting practices are functional in that parenting styles develop in response to the resources and risks present in the family's neighborhood environment (see review in Amato & Fowler, 2002; McLoyd et al., 2000). For example, Furstenberg and colleagues (1999) found that African American parents living in high-poverty neighborhoods with high crime rates and few institutional resources needed to be more authoritarian and restrictive in their parenting style in order to reduce children's exposure to dangerous elements in their neighborhoods.

Although there are certainly racial and socioeconomic differences in the prevalence of certain types of parenting practices and in their effect on outcomes, quantitative analyses have demonstrated that certain practices transcend race and class. Amato and Fowler (2002) explored the association between specific parenting practice and child outcomes for a nationally representative sample of households. Their findings suggested a "common core" of parenting practices that affects children in the same way regardless of their social context. These practices include high levels of emotional support, parental monitoring, and avoidance of harsh punishment.

The research literature on resilience among low-income African American children and families has demonstrated that parenting practices are the mechanism through which some low-income African American youth are able to "beat the odds" and achieve at higher than expected levels given their socioeconomically disadvantaged

family and neighborhood contexts (Jarrett, 1997; 1999). Thus, heterogeneity in the summertime parenting practices of low-SES families may help to explain why educational inequality among students who share similar family backgrounds is greater over the summer than it is during the school year (Downey et al., 2004).

The summer learning research literature has not yet explored causal links between specific parenting practices and children's summer learning. However, as described in prior sections, multiple studies have demonstrated that there is a positive relationship between the frequency of a child's library use, the number of books a child reads over the summer, and summer learning (Burkam et al., 2004; Entwisle et al., 1997; Heyns, 1978). Taking one's child to the library may be indicative of parent's level of involvement and emotional bond with their child. More research is needed to identify the relationship between parenting practices and children's summer learning experiences and outcomes. This dissertation seeks to address that gap in the literature by describing the parenting practices of parents of low-income elementary school children living in a high-poverty neighborhood.

Summer Learning Programs

A straightforward implication of the seasonal pattern of achievement is that summer learning programs have an important role to play in reducing educational inequality. Early research on the effects of summer school programs on academic achievement were largely disappointing (see Heyns 1987 for review). However, the two published meta-analyses that synthesized the findings from summer program evaluations concluded that, on average, summer learning programs that include an academic component have positive effects on student achievement. The first of these meta-analyses

was conducted by Harris Cooper and colleagues (2000) who synthesized the evaluations of 93 summer programs to identify the average effect of summer learning programs on academic outcomes. They found an average weighted effect size across the programs of +0.26 suggesting that summer learning programs *can* curb summer learning loss (Cooper et al., 2000). Recognizing that evaluations that used random assignment to assign children to programs provided the strongest evidence, the authors separately considered the effects of studies that had used random assignment. Across the five studies included in this sub-analysis, the average effect size was .14. In their examination of the common characteristics of effective programs, they found that small program and class size, an academic focus, and individualized instruction were critical to program effectiveness.

Kim and Quinn (2013) recently published a meta-analysis summarizing the effects of classroom-based and home-based summer reading interventions for children in grades K-8. Their meta-analysis was restricted to studies that were published after 1999 and used experimental or quasi-experimental designs to identify treatment effects. Across all 41 programs included in their analysis, they found an average effect size of .10 on total reading achievement. Notably, effect sizes varied depending on the reading outcome under consideration, ranging from an average insignificant impact on reading vocabulary to an effect size of .24 on fluency and decoding. The mean effect sizes for home-based and classroom-based interventions were not significantly different from one another; however, the authors reported much greater between-study heterogeneity in the classroom-based interventions than in the home-based interventions. They tried to explain some of the heterogeneity in classroom-based interventions by investigating whether the use of research-based instructional strategies moderated intervention effects.

They found that programs that used at least one of the research based instructional strategies recommended by the National Reading Panel (2000) had moderate to large effects (d=.25 to d=.63) on four of the five reading outcomes under consideration. The programs that did not use research-based strategies did not have a significant effect on four of the five outcome measures. The instructional strategies recommended by the NRP are highly specific strategies intended to support students' improvement in phonemic awareness, phonics, fluency, comprehension, and vocabulary such as the use of small-group instruction and graphic organizers.

Kim and Quinn (2013) also explored the role of class size, program duration (half-day vs. full-day), and program intensity (total number of hours of reading instruction). On their own, these three variables did not moderate the intervention effects of the classroom-based interventions. However, they found suggestive evidence that resource-intensive classroom-based interventions (programs with fewer than 13 students per class, 4-8 hours of instruction per day, and 70-175 hours of total instruction) had a more positive effect than less intensive classroom-based programs.

Both meta-analyses considered the role of student income in moderating the effects of summer programming (Cooper et al., 2000; Kim and Quinn, 2013). The two reviews came to different conclusions in this regard. Cooper and colleagues' (2000) review of the effects of summer interventions on the math and reading outcomes of children of all ages found that middle and upper class children benefitted more from summer learning programs, but Kim and Quinn (2013) found that mean effects were higher for children from low-income backgrounds. One likely reason for the divergent findings of these two studies is that Cooper and colleagues (2000) considered math and

reading outcomes and programs serving children at all grade levels, whereas Kim and Quinn (2013) only focused on reading interventions serving children in grades K-8. Kim and Quinn (2013) speculated that low-income children tend to benefit more from summer reading programs because in the absence of summer reading interventions, low-income children do not tend to improve their literacy skills over the summer, but middle- and high-income children do. In this way, a summer reading intervention may create a greater "treatment control contrast in program activities and outcomes" when the majority of children are from low-income households (p. 421). Without qualitative data about the summer activities of children who were not enrolled in a summer learning program, Kim and Quinn (2013) were not able to investigate this claim.

Although both meta-analyses have made important contributions to the summer learning research literature, neither one has illuminated the specific features of summer learning programs that are most important for low-income elementary school children. In the paragraphs that follow, I review the randomized control trials (RCTs) of summer learning programs serving low-income elementary school children and discuss what they suggest about what it takes to curb summer learning loss among low-income elementary school students. In the final section of the chapter, I summarize the summer learning research literature reviewed thus far and discuss the gaps in the research that this dissertation tries to address.

Experimental Evidence of Summer Learning Programs

A handful of published summer learning program evaluations have used random assignment to identify the effects of summer learning programs on low-income elementary school children (Borman & Dowling, 2006; Borman, Goetz, & Dowling,

2009; Schacter & Jo, 2005). Schacter and Jo (2005) evaluated a summer reading program for low-income rising second grade students from three schools in the Los Angeles school district. Students in this program received 2 hours of reading instruction in the morning and spent their afternoon in camp-like activities. Schacter and Jo (2005) reported that the program had a positive effect on students' decoding (ES=.96) and comprehension (ES=1.35) skills directly after the program had concluded but that the effect started to fade as the school year progressed. Geoffrey Borman and colleagues (2006) used experimental and quasi-experimental techniques to evaluate a Baltimore City summer learning program – Teach Baltimore. Teach Baltimore served a randomly selected sample of rising 1st through 4th grade students from ten high-poverty elementary schools. The program provided students with full-day summer learning activities that included direct reading instruction and an afternoon of enrichment activities. Borman and colleagues' (2006) experimental analyses demonstrated that the offer of the program did not have a statistically significant effect on student achievement in the first year. However, in their quasi-experimental analyses they found that the program had a positive and significant effect on the literacy outcomes of students with above-average attendance rates for two of the three summers that the program was offered (effect sizes between 0.28 and 0.32 for the three different outcomes). After their Teach Baltimore study, Borman et al. (2009) conducted an experimental analysis of another full-day summer learning program called KinderARTen. This program offered 93 randomly selected rising first grade students a full-day six-week program that included morning reading instruction and afternoon enrichment. The authors found that the offer of this program had a positive effect on students' reading scores with an effect size of d= .27 for

recognizing site words on a standardized word list and d= .40 for the Development Reading Assessment (DRA)[2].

The programs under investigation for the Borman et al. (2006; 2009) and Shacter and Jo (2005) evaluations all provided students with academic *and* non-academic school resources. As a result, the studies did not allow the researchers to identify what aspects of these programs (academic resources, non-academic resources, or both) were most critical to the programs' effectiveness. In their review of the scientific evidence on the effectiveness of out-of-school time (OST) programming (including summer programming) for the What Works Clearinghouse, Beckett and colleagues (2009) noted that "studies of OST programs tend to examine combined effects of a variety of practices and procedures on student achievement, making it difficult to determine the specific practices contributing to achievement gains" (p. 9). The type of variation that existed in City Schools' summer learning programming during the summer of 2012 allowed me to identify the role that non-academic resources played in curbing summer learning loss because approximately half of enrolled students were offered academic summer school resources only and another half were offered academic and non-academic summer school resources. As a result, I am able to address this critical gap in the research literature.

Summer book distribution programs. The evaluations of summer book distribution programs suggest that academic resources are probably a critical component of summer program effectiveness. Both James Kim (2008) and Richard Allington (2010) have independently conducted experiments to see what happens when low-income elementary school students are given access to books over the summer. Allington and

[2] Notably, Borman and colleagues (2009) also administered two DIBELS assessments (letter naming fluency and phoneme segmentation fluency). There were no statistically significant differences between the treatment and control group in these test scores.

colleagues' (2010) study found that just giving students in grades ones and two access to appropriately leveled books to read at home during the summer had a positive effect on reading skills. After three summers of receiving books from the summer book distribution program, students in the treatment group outperformed the control group on the state standardized test (d=.14). Importantly, the effect size was even higher (d=.21) when Allington and colleagues (2010) only compared the treatment and control group members who were eligible for Free and Reduced Priced Lunch. They explain: "This indicates that the book distribution had positive effects on the reading achievement of the children from the lowest income families in the study" (Allington et al., 2011: p.421).

Kim and White (2008) also evaluated a summer book distribution program using an experimental design. The third, fourth and fifth grade students in their study were randomized into one of three treatment groups (books only, books with oral reading scaffolding, and books with oral reading and comprehension scaffolding) or the control condition. All students in the three treatment groups received eight books to read over the summer that were matched to their reading level and received postcards home during the summer that encouraged them to read and asked them to report back on how much of each book they had read. Children in the two scaffolding conditions participated in lessons before the summer started that aimed to support their oral reading of the books and, for those in the oral reading and comprehension scaffolding group, their comprehension of the texts as well. The parents of children randomized into the two scaffolding conditions received postcards over the summer that provided instructions to parents about how to support their students' reading over the summer and required that parents report back on how much their children had read over the summer. Kim and

White (2008) found significant differences in the ITBS reading scores between students in the treatment group that received oral reading and comprehension scaffolding and students in the control group (ES = 0.14). The differences between those randomized into the books only condition and the control condition were not statistically significant. It seems likely that one of the mechanisms through which the scaffolding condition had its effect was that it encouraged parental involvement in the children's summer academic activities. In so doing, it may have influenced parental expectations children's academic achievement over the summer.

Discussion

The sociological research on the seasonal pattern of inequality has clearly demonstrated that educational inequality between and within social classes grows over the summer at a much faster rate than it does during the school year. Understanding how non-school environments exacerbate inequalities and how school-based learning opportunities can reduce these differences is critical to the development of both theories of social stratification and for the improvement of educational policies and programs to reduce educational inequality.

The extant research shows that family monetary resources and neighborhood SES play a significant role in shaping children's summer learning achievements (Benson & Borman, 2010; Borman et al., 2005; Chin & Phillips,2004 ;Entwisle et al., 1997). Family dynamics including family social capital, parental attitudes, parenting practices, and stress in the home also influence children's summer learning experiences (Borman et al., 2005; Entwisle et al., 1997; Slates et al., 2010). Fieldwork in high-poverty neighborhood has identified consequential differences in the parenting strategies of low-SES parents in

high-poverty neighborhoods and in the ways that parents manage their children's interaction with the school and neighborhood (Furstenberg et al., 1999; Jarret, 1997; Jarret, 1999). Understanding how family management styles influence low-SES children's summer learning experiences will help to refine our theories of why inequality between and within social classes grows during the summer months and will suggest ways in which policies and programs can intervene. The qualitative analyses featured in Chapters Four and Six of this dissertation seek to achieve those objectives.

A clear implication of previous research is that educational inequality will likely be reduced if disadvantaged children have access to high-quality summer learning resources. Although summer learning programs for low-income students can have positive effects on reading skills over the summer, the mechanisms are less well-understood. Specifically, it remains unclear whether non-academic camp-like experiences intended to support students' non-cognitive skill development make a difference.

Existing research suggests that supporting children's non-cognitive skill development over the summer is essential to ensuring that children make academic gains. Non-cognitive development is strongly correlated with cognitive development and academic achievement (Bodovski & Farkas, 2008; Duckworth & Seligmen 2005; Farkas, 2003; Farrington et al., 2012; Jennings & DiPetre, 2010). Inequalities in children's opportunities to acquire non-cognitive skills are likely related to inequalities in children's cognitive skill development. The "schools as compensatory institutions" hypothesis (Alexander et al., 2007; Downey et al., 2004; Heyns, 1978) would suggest that inequalities in children's opportunity to develop non-cognitive skills are greatest during periods when school is not in session. Recent research on the relationship between

extracurricular activity participation and child development lends support to this idea. In their analysis of the relationship between extracurricular activity participation (i.e. activities like sports teams, dance and music lessons) and student learning in a nationally representative sample of third grade students, Covay and Carbonaro (2010) found that participation in extracurricular activities influenced students' academic behaviors (non-cognitive skills) and achievement outcomes in reading and math. Notably, they found that the effect of extracurricular activities on students' academic achievement was almost entirely explained by the positive relationship between extracurricular activity participation and non-cognitive skills.

Covay and Carbonaro's (2010) findings suggest that inequality in children's access to out-of-school time enrichment opportunities is related to inequality in children's cognitive and non-cognitive skills development. Research has not yet identified whether and how summer program resources intended to support students' non-cognitive development (resources that I refer to as non-academic summer program resources) influence students' summer learning. The quantitative analysis of this dissertation addresses this gap in the program evaluation literature by identifying the effects of academic and non-academic summer school resources on the summer learning of a predominantly low-income African American sample of City Schools' elementary school students.

CHAPTER THREE

RESEARCH DESIGN & METHODOLOGY

This dissertation aims to achieve the following three objectives:

1. Identify the effects of academic and non-academic summer school resources on the summer learning of early elementary school students.
2. Describe how low-income parents of first grade students who attend elementary school in a high-poverty neighborhood manage the resources and risks present in their family and neighborhood environments to create their children's summer learning experiences.
3. Describe how low-income parents of first grade students who attend elementary school in a high-poverty neighborhood make decisions about whether to access summer program resources on behalf of their children.

To achieve the first objective, I used quantitative data and quasi-experimental techniques to identify the effects of enrollment in two variants of a summer learning program offered to students in City Schools' non-charter elementary schools. To achieve the second and third objectives, I analyzed qualitative data that was gathered through in-depth semi-structured interviews that I conducted with parents of first grade students who attended two schools in a high-poverty neighborhood in Baltimore City.

The first section of this chapter describes the research design and methodology of the quantitative analysis. I begin with background information on the program that is evaluated in the quantitative analysis. Next, I present the research questions and hypotheses that guided my research design. Finally, I provide an overview of the data and

of the analytic strategy that was implemented. In the second section of this chapter, I describe the sampling design, recruitment strategy, and interview protocol used to collect the qualitative data as well as the analytic strategy.

Quantitative Data & Methodology

Background: Read to Succeed

City Schools' Read to Succeed academies were started during the summer of 2012 as part of a citywide effort to address the low levels of reading achievement among Baltimore City's low-income early elementary school students (Eberhart & Michel, 2012; Green, 2012). The school district selected 21 elementary schools to serve as host sites for the citywide program and mandated that all sites follow a scripted literacy curriculum. In deciding where to host summer school sites, the school district reported that they considered a number of factors. First, they wanted to have programs across the city so that they could easily transport students to a program without needing buses that would have to travel long distances. Although the program would be open to all students even if their school did not serve as a host site, developers knew that parents would be more likely to send their children to the program if their home school was serving as a site. For this reason, the district targeted schools with high numbers of students who scored below grade-level on their state standardized tests. Finally, the program could only be hosted in schools that had functional air conditioning. Figure 3.1 is map of Baltimore City's 55 community statistical areas, which are shaded according to their median household income (darker shades signify higher income areas). The dots on the map are the locations of the summer 2012 Read to Succeed Academies.

As intended by program developers, there were opportunities to attend a reading academy in most regions of the city and the academies were most accessible to students living in low-income neighborhoods (lighter shades) where we know students are most vulnerable to summer learning loss (Benson and Borman, 2010). The following paragraphs describe the activities that were designed for the half- and full-day programs.[3]

In the morning, all sites were to follow the same schedule of activities and implement the same curriculum. In total, sites featured 170 minutes of literacy instruction each day. The daily reading instruction included a scripted 30-minute "word study" lesson created by the district, 25 minutes of whole group reading instruction, and 40 minutes of independent reading and practice. The whole group-reading curriculum was created by the American Reading Corporation and all summer school classrooms were supposed to be equipped with leveled libraries so that students could be reading books at their grade levels. Reading instruction was followed by 45 minutes of writing instruction. These writing lessons were also provided by the American Reading Corporation. The curriculum materials provided by the American Reading Corporation all focused on a common theme of animal habitats and were adapted by the company to align with City Schools' elementary school literacy curriculum. The morning ended with a 30-minute period of the "Walk to Reading Achievement." The Walk to Reading achievement was a time for small group instruction when all the adults in the building worked with pre-determined groups of students on particular literacy skills. One reason why the district chose the summer school instructional model and curricular materials that they did was

[3] It is important to note that an implementation study was outside the scope of this project. As a result, my description of these programs reflects my understanding of the "intended curriculum" as described to me by program developers and administrators. The extent to which sites enacted the intended curriculum is an important topic of study, but outside the scope of this project.

that they aligned with City Schools' instructional framework for literacy adopted by all elementary schools during the school year and with the content of the elementary school curriculum. This type of alignment between school year and summer program curricula is a common characteristic of highly effective summer school programs (Terzian, Moore, & Hamilton, 2009). Additionally, the individualized instruction featured during the independent practice and "walk to reading achievement" component of the morning program have been identified by the What Works Clearinghouse as an out-of-school time practice that is associated with effective OST programs (Beckett et al., 2009).

The program aimed not only to curb summer learning loss among participating students but also to support the development of elementary-level teachers' capacity to improve students' literacy skills during the school year. To be selected for the program, teachers had to have at least one year of teaching experience and could not have received an unsatisfactory rating from their principal during the prior school year. Before the program started, all selected teachers attended 40 hours of professional development in how to implement the curriculum and how to use data to drive instruction. Additionally, each site was staffed by at least one reading coach who observed teachers during their lessons. During the afternoon, reading coaches facilitated two hours of mandatory professional development with all teachers. This time was used for additional training as well as reflection and collaboration. In total, teachers were supposed to receive 78 hours of professional development over the course of the summer. Hiring qualified teachers and providing summer staff with training has consistently emerged as a common characteristic of highly successful summer learning programs (Terzian et al., 2009).

Read to Succeed-Plus! At ten of the program sites, an afternoon component was added to the half-day academic program because program developers wanted to ensure that low-income parents were not deterred from the morning program because of a need for a full-day of childcare and because developers were interested in augmenting the impact of the morning program by supporting students' development in the afternoon. Full-day programs were referred to as Read to Succeed-Plus! sites. To implement the afternoon program, City Schools collaborated with a local non-profit organization. The staff of the organization was responsible for implementing the afternoon program, which began after lunch at noon each day. At least once a week students in the program went on a field trip to a local swimming pool, their public library, or a cultural institution such as the Baltimore Zoo. On days that children were not traveling to a field trip, children rotated between camp-like activities at their host sites. These activities included an arts program developed by the Baltimore Office of Promotion and Arts, the 100 Book Challenge, and structured play-time.[4] Staff was trained by Play Works, a national nonprofit organization that aims to promote students' social, physical, and emotional development through structured play. In addition to organizing the afternoon program for the four weeks of City Schools' summer school, the local non-profit organization was responsible for providing a full-day of camp-like activities to students during the week before and the week after the half-day program. Afternoon programming ended each day at 3:30, when a warm meal was served to all students. Students were dismissed each day at 4:30.

[4] The 100 book challenge is an independent reading program developed by the American Reading Company. Students are given appropriately leveled books to read independently in a school-setting and at home. Their progress is tracked and rewarded.

The collaborating non-profit organization was responsible for recruiting and training their staff. In addition to hired staff members the organization trained AmeriCorps volunteers to support the program. The organization mandated that all staff receive five days of training before the summer began. They reported that their professional development consisted of training in character education, behavioral management, project-based learning, and instructions on how to implement the various aspects of their curriculum such as the 100 Book Challenge.

Student recruitment & selection. The program was open to all elementary school students who attended a neighborhood (non-charter) school and were in grades K-3 during the 2011-2012 school year. The developers of the program wanted to attract the City's lowest achieving students. As a result, students reading below grade level were given the first opportunity to enroll. This population of students was referred to as the "target population." The target population received postcards in the mail, addressed to parents or guardians, encouraging them to enroll their children. Additionally, some schools made extra efforts to encourage these families to register. Although the program developers wanted to fill the program with students from the target population, developers were not able to fill the program with students from the target population. By June, the programs had not filled with the target population and the district opened enrollment to all elementary school students in neighborhood (non-charter schools). These parents heard about the program through the guide to summer learning that the district published, advertisements on television and the internet, as well as formal and informal messages communicated from individual schools.

Although the program was only supposed to be hosted in 21 schools, students from any of the City's neighborhood (non-charter) schools were eligible to enroll. If a child did not live in host site's attendance zone, the district provided free transportation so that the student could get to the closest summer program site to their home. Spots in the full-day and half-day program were available on a first-come first-served basis. Parents who were interested in the full-day program were asked to pay a $60 fee for the six-week program. Importantly however, this fee was waived if a parent had an income that was less than $1,300 month.

Research Questions and Hypotheses

My first research question for the quantitative analysis featured in this dissertation is: How do academic summer school resources affect student learning (cognitive and non-cognitive skill development)? I define academic school resources as features of a school program that are intended to support students' cognitive skill development. As described in the previous section, students enrolled in the half- and full-day programs were offered a strong dose of academic summer school resources through the morning academic curriculum. I considered students who enrolled in the half-day program to have had the opportunity to receive academic resources only and those who enrolled in the full-day program to have had the opportunity to receive academic *and* non-academic resources over the summer. I hypothesized that the academic summer school resources offered in the morning program had a positive effect on students' cognitive development by providing them with instructional resources to develop and practice their reading skills. Therefore, I predicted that students who enrolled in the half-day program performed higher on end-of-summer measures of cognitive development

than did a matched comparison group of students who did not enroll in any City Schools' summer program.

The development of non-cognitive skills was not an explicit goal of the half-day program. During the school year, children are able to procure resources for non-cognitive skill development through the emotional support they receive from their teachers (Luckner & Pianta, 2011; Wilson, Pianta & Stuhlman, 2007). While it is possible that these types of support were offered to children enrolled in the half-day summer program, the short duration of the morning program (3 hours a day, 5 days a week for 4 weeks) and the fact that many students were attending the program at a school that was not their own makes that possibility it unlikely. Notably, however, it is possible that the half-day program did promote non-cognitive skill development through the program's requirement that students practice critical academic behaviors (such as organization and self-discipline) that may not have otherwise been practicing over the summer. For this reason, I hypothesized that enrolling in the morning academic program had a small positive effect on measures of student non-cognitive skills. I predicted that students who enrolled in the half-day program performed more highly on measures of non-cognitive skills than a matched comparison group of students who did not enroll in any City Schools' summer program.

The second research question is: How do non-academic summer school resources affect student learning (cognitive and non-cognitive skills)? I define non-academic school resources as features of a school program that are intended to support students' non-cognitive skills. As described in the description of Read to Succeed-Plus!, the full-day program offered students who enrolled a strong dose of non-academic school resources

through the afternoon enrichment program, which provided students with time in a safe and structured environment as well as instruction in enrichment activities and character education. I hypothesized that the offer of these non-academic resources had a positive effect on the cognitive skills of students who enrolled in the full-day program by making it more likely that they would fully engage in the academic resources featured in the morning program and by increasing their exposure to academic content through the activities featured in afternoon enrichment. For these reasons, I predicted that students who enrolled in the full-day academic program performed more highly on measures of cognitive skill development than a matched comparison group of students who did not enroll in any City Schools' summer program and more highly than a matched comparison group of students who enrolled in the half-day program.

The afternoon curriculum offered to students in the full-day program featured a number of elements intended to improve students' non-cognitive skill development. I hypothesized that enrollment in the non-academic summer school resources in the full-day program had a positive effect on the non-cognitive skills of students who enrolled in that program by improving their attachment to schooling, improving their self-concept as a student, and by decreasing their exposure to potentially stressful non-school environments. Therefore, I predicted that students who enrolled in the full-day program performed higher on measures of non-cognitive skill development than a matched comparison group of students who did not enroll in any City Schools' summer program and higher than a matched comparison group of students who enrolled in the half- day program.

Research Design

The primary goal of the quantitative analyses featured in this dissertation was to make causal inferences regarding the role that academic and non-academic school resources play in supporting summer learning. My research design was guided by the potential outcomes framework (Rubin, 2005). Through this framework, the event or behavior that we are curious about is conceived of as a treatment. The individuals who experienced the treatment are thought of as the "treatment group" and those who did not experience the treatment can be thought of as the "control group." This paradigm challenges us to think of each individual in the population as having two potential outcomes—his or her outcome under the treatment condition and his or her outcome under the control condition. To estimate a causal effect we want to know the difference between these two potential outcomes for each individual, although, we can only ever observe one of each individual's potential outcomes. In this way, the conundrum of causal inference can be thought of as a missing data problem (Morgan & Winship, 2007; Rubin, 2005; Stuart, 2010). We want to calculate the difference between each individual's outcome under the treatment and control conditions, but are missing one of those two values. In the context of this study in which I had two treatment conditions—enrollment in the half-day and enrollment in the full-day programs—I wanted to know how much students who enrolled in each of the programs would have learned if they had not enrolled in any program. Additionally, to identify the unique effect of non-academic resources offered to students enrolled in the full-day program, I wanted to know how much students who enrolled in the full-day program would have learned if they had instead enrolled in the half-day program. Because I did not have data on those counterfactual conditions, I needed to use statistical methods to estimate those quantities.

The most straightforward way to estimate unobserved outcomes is to assume that the groups are exchangeable, meaning that the no-treatment control group's mean outcome is what the treatment group's mean would have been if those individuals had not received the treatment. This assumption is met in a randomized experiment because whether an individual is assigned to the treatment or control group is completely random and, thus, theoretically unrelated to the individual's potential outcomes (or selection into treatment). However, in the absence of random assignment, we need to be concerned that there are observed and unobserved differences between treatment and control group members that influenced their selection into the treatment or control group and that may influence their outcome. These variables are referred to as confounders. In the context of this study, I needed to be concerned that the same variables that influenced whether or not a student signed up for the summer school program and the type of program they selected (full-day or half-day) might also have influenced how much or how little they learned over the summer. If this were true, a comparison of the learning outcomes of students in the treatment and control groups would have given yielded a biased estimate of the effect of the program.

Propensity score matching overview. Propensity score matching techniques are a useful way of addressing selection bias because they allow us to ensure that we are comparing outcomes in a treatment and control group that do not significantly differ in observed confounding variables. An individual's propensity score is his or her probability of receiving the treatment given observed covariates (Rosenbaum & Rubin, 1983; Stuart, 2010). The propensity score can be thought of as balancing score (Rosenbaum & Rubin, 1983; Stuart, 2010). Treated and control individuals with the same propensity score may

not have the exact same values on all covariates, but at each propensity score the distribution of observed covariates will be the same for members of the treatment and control group. Once we have treatment and control groups that are truly balanced on all possible confounding variables, we can compare the outcomes in these two groups to estimate an unbiased treatment effect.

An important assumption of propensity score matching methods is the "strongly ignorable treatment assignment" or "un-confoundedness" assumption (Rosenbaum & Rubin, 1983). This assumption is that given the observed covariates, assignment to treatment is independent of potential outcomes; therefore, any differences between the matched treatment and control groups are the result of the treatment itself (Rosenbaum & Rubin, 1983; Stuart, 2010). To meet this assumption, analysts need to include all variables in their propensity score model that are related to treatment assignment and to potential outcomes. Of course, we can never know all of the variables that might influence treatment and potential outcomes. As a result, analysts will generally include all available pre-treatment variables in their propensity score model that are potentially related to treatment assignment and/or an individual's potential outcome (Stuart, 2010).

Not all datasets contain a wealth of covariates. Steiner and colleagues (2010) investigated how having a limited number covariates for the propensity score model influences the level of bias in the treatment effect estimates. They found that analysts could generate unbiased effect estimates as long as they had variables that were strongly correlated with treatment selection *and* variables that were strongly correlated with the potential outcomes.

One of the primary benefits of propensity score analysis is that it separates the initial research design phase and the outcome analysis (Rubin, 2001). In his discussion of propensity score matching methods, Donald Rubin (2001) noted that one of the virtues of randomized control trials is that the initial research design phase is usually initiated before the outcome data is even collected. He speculated that if scientists were able to try out their experimental design hundreds of time and see how each design affected their outcome analysis, they might be compelled to select the design that confirms their initial hypotheses. He noted however, this is impossible in experiments in which the selection of a sample and the plan for data collection are set prior to the intervention and the collection of outcome data. Rubin (2001) explained that this "lack of availability of outcome data when designing experiments is a tremendous stimulus for 'honesty' in experiments" and argued that it is possible to achieve such "honesty" in observational studies so long as researchers use methods that allow them to separate out initial research design (sample selection) from outcome analysis (p.169). Since the statistical model used to estimate a propensity score does not include outcome data, the method imposes this separation. Although analysts have decisions to make regarding specific variables that they will include in the propensity score model, the estimation procedure to use and the matching routine to implement, these decisions can be made on the basis of how the choice affects the degree of bias in the sample rather than how the choice affects the outcome analysis. More detail on the propensity score model that I ultimately used in the analysis is provided in this chapter's section on the analytic method.

It is important to note that although propensity score matching methods are a useful way of addressing concerns about selection on observable background

characteristics, they do not eliminate selection bias due to unobservable differences between the treatment and control group. As a result, it is recommended that analysts conduct sensitivity analyses to identify how big an effect an unmeasured confounder would need to have to invalidate that estimated treatment effect (Rosenbaum, 2005). In the final section of this chapter, I describe my approach to sensitivity analysis.

Sample

The analytic sample was drawn from the population of general education students in first and second grade during the 2011-2012 academic-year who attended one of the 90 neighborhood (non-charter schools) that used Wireless Generation for Benchmark assessments during the 2011-2012 and 2012-2013 school years and who stayed in one of the those 90 schools in the 2012-2013 school year. [5, 6] There were 109 non-charter schools serving students in grades K-2 during the 2012-2013 school year; 90 of these schools also used Wireless Generation for their benchmark assessment system during the 2011-2012 and 2012-2013 school years. Schools that used Wireless Generation served approximately 87 % of the K-2 student population that attended a non-charter school during the 2011-2012 school year.

[5] Although the program served rising fourth grade students (students in third grade in 2011-2012) and rising first grade students (students in kindergarten in 2011-2012), I did not consider students in those grades in this analysis. Third graders were excluded because there was a high rate of missing data for fourth graders in 2012-2013 Fall testing file. I believe that this high rate of missing data was due to the fact that Wireless Generation DIBELS was not available for fourth grade students during the 2011-2012 school year. Schools were supposed to use the technology to test their fourth grades at the start of the 2012-2013 school year. However, the high rate of missing data among fourth graders suggests to me that schools did not understand this policy change. I did not consider kindergarten students as part of this analysis because they took different achievement tests in kindergarten (state standardized tests and DIBELS) and during the fall of 1st grade (DIBELS) than the first and second graders did. As a result, the propensity score model and outcome analysis for kindergarten students would have to be generated separately from the other two grades.

[6] Ninety-three non-charter schools signed up to use Wireless Generation for their benchmark assessment system. However, three schools did not use this system in fall of 2012 and so they were not considered to be a part of the study population.

There were 9,432 students who were in grades one and two at the 90 schools that used Wireless Generation during the 2011-2012 school year and had enrolled in a City Schools' neighborhood elementary school at the start of the 2012-2013 school year. I dropped students from the sample if they received special education services during the 2011-2012 school year (n=1,336). These students were dropped from the sample because the files available to me did not provide details about a student's Individualized Education Plan (IEPs). Some students with IEPs can be taught in a school's general education classrooms, but those with more severe disabilities are pulled out into a self-contained classroom for all or for part of the day. Without detail on the severity of students' disabilities and how their special needs were accommodated during the school year, I was unable to match special education students in the treatment group to special education students in the control group who had a similar type of learning need. I also dropped general education students from the study population if they did not make a normal grade transition between the 2011-2012 and 2012-2013 school years (n=400). These students could not be included in the study population because the Dynamic Indicator of Basic Early Literacy Skills (DIBLES) assessments (assessments used for outcome measures) are not vertically scaled across grade levels. This means that the DIBELS assessments that retained students took at the beginning of year assessment were not scored on the same scale as the DIBELS assessments taken by students who were not retained.

The final analytic sample can be described as general education students in grades one and two in the 90 neighborhood (non-charter) elementary schools that used Wireless Generation for their benchmark assessments and who made a normative grade transition

between 2011-2012 and 2012-2013. Seventeen percent of these students were missing data on one of the four outcomes under investigation for this study. The vast majority of those with missing outcome data were missing their fall 2012 DIBELS score. When data is only missing on the dependent variable and not on any of the independent variables, experts do not recommend the use of multiple imputation (Allison, 2001). Allison (2001) explained: "If there are missing data on the dependent variable but *not* on any of the independent variables…there is nothing to be gained from imputing the missing cases under multiple imputation" (p.54). For this reason, students with missing data on the outcome variables were dropped from the analytic sample. Table 3.1 provides descriptive statistics on the student background characteristics of the full study population, the students who were retained in the sample, and the students who were dropped from the sample because of missing data.

The students who were retained in the sample that was used for propensity score matching looked very similar to the full study population in terms of their demographic characteristics and achievement profile. Notably however, the students who were dropped from the sample appear to have been a select group. Students who were dropped from the sample were more likely to have qualified for Free and Reduced Priced lunch, and were much more likely to have been chronically absent during the 2011-2012 school year. Students with missing outcome data had lower scores on the state standardized tests administered in March of 2012 (the Stanford-10 Achievement test). On average students who were retained in the study sample scored in the 54th national percentile on that test and those who were dropped from the study sample scored in the 48th national percentile.

Data and Measures

The primary source of the quantitative data used for this project was City Schools' administrative and testing records from the 2011-2012 and 2012-2013 academic-years. These de-identified student-level records provided information about student background characteristics, the number of school transfers a student made in SY 2011-2012, the student's rate of attendance during SY 2011-2012, and the student's scores on the standardized state assessments. Additionally, I relied on summer program enrollment files, which were created by the school district when parents signed their child up for summer school by mailing in a form or by visiting the district office for on-site registration. Finally, I incorporated data from the Baltimore Neighborhood Indicator Alliance's (BNIA) Vital Signs 10 Report (2012) to identify the neighborhood characteristics of students' school.

Outcome measures. The quantitative analysis was intended to identify the effect of enrollment in the programs on a student's cognitive and non-cognitive skill development. I used the DIBELS' Oral Reading Fluency (ORF) test as a measure of students' cognitive skill development over the summer. Quarter One reading grades were conceptualized as a measure of students' cognitive *and* non-cognitive skills. Quarter One math grades and Quarter One attendance rates were conceptualized as measures of students' non-cognitive skills. In the paragraphs that follow, I justify my choices for operationalizing these constructs in the given measures and provide more detail on these variables.

DIBELS. DIBELS is a standardized assessment system that contains seven subtests which each measure a domain of early literacy—phonological awareness, alphabetic principle, fluency with connected text, vocabulary, and comprehension

(Goffreda & DiPerna, 2010; Good & Kamiinski, 2002; 2011). In Baltimore City, the DIBELS assessment was administered using wireless technology during the study period (2010-2012). The data were collected digitally and reported back to schools and the school-district by Wireless Generation. During the 2011-2012 and 2012-2013 school years, DIBELS benchmark assessments were intended to be administered three times a year during a two-week testing period in the fall (September), winter (January) and spring (May).

DIBELS is designed to measure student growth over time.. Within each grade, the individual subtests were created in such a way that at each testing occasion (fall, winter and spring) the items are estimated to have the same level of difficulty. This means that positive changes in students' scores over the course of the year can be interpreted as academic growth and valid comparisons can be made between students within the same grade. The reliability of the DIBELS subtest range between 0.72 and 0.94 (Biancarosa, Bryk & Dexter, 2010). Studies have investigated the usefulness of DIBELS by examining its concurrent and predictive validity. Concurrent validity has been established by comparing students' DIBELS scores to scores earned on other standardized literacy assessments taken at the same time (Hintze, Ryan, & Stoner, 2003). Predictive validity has been established by studies that assess the extent to which DIBELS scores predict achievement on other standardized tests taken later in a student's academic career (Schilling et al. 2007). Reviews of these reliability and validity studies have concluded that the assessments are reliable and valid (Biancarosa et al., 2010).

One of the benefits of using DIBELS for an evaluation of a summer program is that the test is *not* norm referenced. Many norm referenced assessments account for the

skill regression that students typically make over the summer, and, as a result may underestimate summer learning losses (Cooper et al., 1996; Helf, Konrad, & Algozzine., 2008). One of the drawbacks of using DIBELS for a study of summer learning is that the test is not vertically scaled across grade levels. This means that as students move from one grade to another, a negative change in their DIBELS scores may reflect the fact that the fall test is more difficult than the spring test and may not imply summer learning loss. However, since all non-retained students within a grade took the same test as one another in spring and the same test as one another when they returned to school in fall, systematic differences between student groups in the direction or magnitude of their spring-fall DIBELS change score (or the magnitude of their fall score controlling for their spring score) is a valid way to identify differences between groups' summer learning. Importantly, DIBELS scores have been used to measure academic-year and summer learning rates in other studies and evaluations (Borman et al., 2009; Helf et al., 2008; Kim, 2006; Kim and White, 2008; Zvoch, 2009; Zvoch & Stevens, 2012).[7]

Students in my sample took the Oral Reading Fluency (ORF) subtest of DIBELS in the spring of 2012 and the ORF again in the fall of 2012. At both occasions, a student's ORF score represents the number of words read correctly on a grade-level reading passage that is read aloud to their teacher. When taking the ORF exam, DIBELS

[7] It is important to note that the DIBELS assessment system was updated at the start of the 2012-2013 school-year when there was a transition from the DIBELS 6th edition (Good & Kaminski, 2002) to DIBELS NEXT (Good & Kaminski, ,2011). The skills assessed by each subtest and the scale of the test did not change but there were some changes to the difficulty of the various subtests (Good & Kaminski, 2011). Although unlikely, it is possible that a decrease or increase in student achievement between the end of the 2011-2012 school-year and the beginning of the 2012-2013 school year was due to a change in the assessments. This change in the assessment does not invalidate this dissertation's central research questions because *all* students within each grade took the same test from the sixth edition at the end of the 2011-2012 school year and *all* students within each grade took the same test from the DIBELS NEXT edition at the beginning of the 2012-2013 school-year.

recommends that students read three unfamiliar grade-level passages (provided by DIBELS developers to ensure consistent difficulty across passages and testing occasions) aloud to their teacher for one minute. At the end of one minute the teacher counts the number of words read correctly. A student's final ORF score is the median number of words read correctly on the three one-minute read-aloud passages. In a study examining the predictive validity of DIBELS ORF scores, Roehrig and colleagues (2008) examined the correlations between third grade students' DIBELS ORF scores and their scores on a high-stakes state standardized assessment (Florida's FCAT) and on a low-stakes standardized assessment (the Stanford 10 Achievement test). Their sample included over 30,000 students attending *Reading First* schools in Florida. They found that students' spring DIBELS scores were highly correlated with their FCAT (r=.70) and SAT-10 reading scores (r=.71).

Grades. I conceived of students' grades as a reflection of their cognitive and non-cognitive skills. Grades in math and reading are likely influenced by cognitive skill level because a student's cognitive skills partially determine the extent to which the student can engage with and succeed on teacher assessments. Elementary school grades are also a reflection of a student's non-cognitive skills because they reflect a student's capacity to perform essential academic behaviors such as working with peers, sitting still,and following directions. These behaviors influence grades because they determine how successfully a student can demonstrate his or her cognitive skills (whether or not, for example, he or she can sit through an assessment) and influence a teacher's subjective impression of a student's potential. In their recent literature review on the causes and consequences of high school students' non-cognitive skill development, the University of

Chicago Consortium on Chicago School Research used student GPA as the primary indicator of non-cognitive skills. They justified this choice by explaining:

> In addition to measuring students' content knowledge and core academic skills, grades also reflect the degree to which students have demonstrated a range of academic behaviors, attitudes, and strategies that are critical for success in school and in later life, including study skills, attendance, work habits, time management, help-seeking behaviors, metacognitive strategies, and social and academic problem-solving skills that allow students to successfully manage new environments and meet new academic and social demands (Farrington et al.,2012: p.3).

Prior research on the predictors of student grades in elementary and middle school has demonstrated that even after controlling for measures of coursework mastery and aptitude, teachers' perception of students' non-cognitive traits (maturity, effort and behavior) have a significant influence on student grades (Alexander, Entwisle, & Dauber, 1993; Farkas, 2003). For example, Alexander and colleagues (1993) found that even after controlling for measures of students' cognitive ability, elementary school marks in reading and mathematics were strongly influenced by teachers and parents' assessments of student maturity.

In this analysis, I conceived of a student's reading grades as a reflection of his or her literacy skills (cognitive skills) and academic behaviors (non-cognitive skills). I hypothesized that enrolling in the half-day program had a positive effect on student reading grades because the program likely boosted student literacy skills. I predicted that

enrolling in the full-day program had an even more positive effect because it likely boosted students' cognitive *and* non-cognitive skills. For the purposes of this study, I conceived of student math grades as a measure of non-cognitive skills since a math grade was probably not affected by the reading program's effect on literacy skills, but may have been influenced by the effects that the programs had on student non-cognitive skills (i.e. self-control, attitude toward schooling, and motivation to learn). In this way, any systematic differences in the math grades of students in the treatment group and those in the matched comparison group would likely be due to the program's effect on the treatment group's non-cognitive skills.

Attendance. My final outcome measure was a student's first quarter attendance rate. Research has established attendance as an indicator of middle school and high school students' level of school engagement and the quality of their academic behaviors, which are both critical non-cognitive skills (Farkas, 1996; Farrington et al., 2012; Fredrick et a.l, 2004). Although an elementary school student's attendance at school is likely influenced by a number of factors unrelated to the student's non-cognitive skills, other scholars have noted that elementary school attendance rates do reflect a student's attachment to school and the quality of the school's climate (Anderson et al., 2004; Bryk et al., 2010; Klem & Connell, 2004). For example, Klem and Connell (2004) found that elementary school students who reported feeling connected to their school community and supported by their teachers had higher test scores and attendance rates than their less-connected peers. Anderson and colleagues (2004) demonstrated that elementary school attendance rates are responsive to school interventions. They found that the implementation of a program (Check and Connect!) that assigns high-risk elementary

school students to an adult mentor had a positive influence on student attendance. The results of the Check and Connect! evaluation suggest that elementary school attendance is influenced by the student's own experience of and attachment to school. I hypothesized that enrolling in the full-day program had a positive effect on a student's Quarter One attendance by supporting the development of academic behaviors and increasing a student's engagement in and attachment to school.

Analytic Strategy: Propensity Score Matching

The first step in propensity score matching was to build a logistic regression model to estimate the propensity score. I used the same propensity score model in the creation of all three matched samples (full-day vs. not enrolled; half- day vs. not enrolled; and full-day vs. half-day). In each model, the dependent variable was whether the student enrolled in the program. Building a propensity score model requires that one think carefully about the processes that might influence selection and those that influence potential outcomes. In the paragraphs that follow, I describe the student, family, school and neighborhood characteristics that I included in the propensity score model. An overview of these variables is provided in Table A.1 of Appendix A.

Student and family characteristics. Prior research suggests that a student's propensity to sign up for a voluntary out-of-school time program is influenced by his or her parents' levels of economic, social, and cultural capital (Bennett et al., 2012; Borman et al., 2005; Chin & Phillips, 2004; Furstenberg et al., 1999; Lareau, 2011). To measure parental economic capital, I used a variable indicating whether a student qualified for the National School Lunch program during the 2011-2012 academic-year. To qualify for this program a child's primary caregivers' annual income needed to be less than 185% of the

federal poverty line. Direct measures of parental social and cultural capital were not readily available and so I had to be creative about how to operationalize these variables. I considered a student's attendance rate during the 2011-2012 school year as reflection of the parent and child's attachment to the school (social capital), and feelings about education (cultural capital) (Farkas, 1996).[8] I calculated a student's attendance rate as the total number of days that he or she attended school during the 2011-2012 school year divided by the total number of days that he or she was enrolled in school during the 2011-2012 school year. I supplemented the attendance measure with a measure of the number of non-promotional school transfers that the child made during the 2011-2012 school year since student mobility may affect and reflect a family's attachment to the school and other community institutions (Gasper, DeLuca, & Estacio, 2010). I also included a variable indicating whether a child enrolled and attended summer school during the summer of 2011 since enrollment in summer school during prior summers may be predictive of whether or not a parent will enroll their child in summer school during 2012. Finally, I included a variable indicating whether the student attended a center-based or school-based Pre-Kindergarten program (as-opposed to not attending any Pre-Kindergarten program). This variable likely reflects the extent to which the parent was connected to the school system or other individuals who can guide them toward these types of programs (Meyers & Jordan, 2006).

The relationship between a student's prior achievement, probability of treatment and potential outcomes is complex. A student's achievement level is highly correlated with his or her family's socioeconomic status (Reardon, 2011). We know that family socioeconomic status is also correlated with a student's summer learning and activity

[8] A child's attachment to schooling can also be considered a non-cognitive skill.

participation over the summer (Burkam et al., 2004; Entwisle et al., 1997; Heyns, 1978). In this way, measures of student achievement might be positively correlated with a student's treatment assignment and potential outcomes. However, factors specific to Read to Succeed made it more likely that children of lower achievement levels would sign-up. Students received extra encouragement to attend summer school (a postcard and phone call home) if they scored below benchmark on their middle of the year DIBELS exam. Additionally, the programs were hosted in schools where there were high numbers of students who scored basic on their high-stakes state standardized assessment. Because the relationship between prior achievement and propensity to sign up for the program is likely complex, I included multiple measures of student academic achievement during the 2011-2012 school year (high stakes assessments and multiple low-stakes assessments). Additionally, because a student's summer learning during the summer before the intervention (summer of 2011) is likely related to their potential outcomes under the treatment and control conditions, I included a measure of summer learning during the summer of 2011. To measure prior summer learning, I subtracted a student's spring 2011 DIBELS score from his or her fall 2011 DIBELS score.

Student behavior during the school year may have also influenced the likelihood of attending summer school. Although the program was voluntary and open to all students, one might imagine that students who behaved poorly during the school year were not encouraged to attend. Student behavior during the academic-year is reflective of their non-cognitive skills, which are hypothesized to influence their cognitive and non-cognitive development over the summer. In this way, student behavior during the academic year may have also influenced potential outcomes. To capture student behavior,

I included a variable indicating the number of suspensions that the student received during the 2011-2012 academic-year.

School and neighborhood characteristics. Children are assigned to neighborhood (non-charter) schools in Baltimore city on the basis of their home address. As a result, a student's school characteristics can serve as imperfect proxies for the student's neighborhood characteristics. We know from prior research that the level of advantage in a child's neighborhood can influence the options they have for how to spend time outside of school (Bennett, 2012; Furstenberg et al., 1999) and is also related to summer learning (Benson and Borman, 2010; Entwisle et al., 1997). For this reason, I included the percent of a school's student body that was eligible for the National School Lunch program, the percent of a school's student body that was African American, and the school's average student attendance rate as covariates in the propensity score model. Finally, I included an indicator variable for whether or not a child's school was serving as a host site for the summer program. It is possible that parents would be more likely to enroll their child in the program if their "home school" was serving as a host site. One of the reasons why host sites were selected is because they had a high percentage of students reading below grade level. Since a student's reading level is likely correlated with family socioeconomic status, students in host site schools may have very different summer learning trajectories from students in non-host site schools. For this reason, it was important that the distribution of students in the treatment group who attended a host site school matched the distribution of students who attended a host site school in the comparison group.

In addition to school characteristics, I included characteristics of the school's Community Statistical Area (CSA).[9] It is important to note that the CSA within which a school was located did not necessarily overlap with the school's attendance boundary. For this reason, the CSA characteristics assigned to individual students may not reflect the characteristics of their neighborhood of residence. However, even if the characteristics of a child's neighborhood of residence were not perfectly aligned with the school's CSA, the school's CSA likely influenced the family's perception of their neighborhood since elementary school children in Baltimore City's neighborhood schools were generally assigned to their school because it was close to their home. In the propensity score model I included two variables that prior research (Benson & Borman, 2010) has shown to be associated with children's summer learning--the proportion of a neighborhood that is African American and the median household income of the neighborhood.

Although the summer learning research literature has not investigated the role of neighborhood crime in children's summer learning, Patrick Sharkey and colleagues (2010; 2012) recently established a link between exposure to violence crime in one's neighborhood and children's academic achievement and behavior during the academic-year. Additionally, qualitative work in high-poverty neighborhoods has shown that low-income parents sometimes did not sign their child up for extra-curricular activities out of concern for neighborhood safety (Coulton & Irwin, 2009; Furstenberg et al., 1999). For

[9] A Community Statistical Area (CSA) is a cluster of neighborhoods in Baltimore City that span continuous census tracts. The benefit of using community statistical areas instead of census tracts is that the Baltimore Neighborhood Indicators Alliance (BNIA) has compiled a good deal of information about the 55 CSAs in Baltimore. Much of this information, such as crime rates, is not available at the census tract level.

these reasons, I included the violent crime rate of a school's CSA as a covariate in the propensity score model.[10]

Missing data on covariates. Of the 6,531 students in the full analytic sample, 25.62% were missing data on one or more measures of prior achievement (summer 2011 gain score, middle of year DIBELS score, and/or state standardized test score from the spring of 2012) or on the variable indicating that they participated in the center-based pre-K. Importantly, no students in the sample were missing data on their end-of-year DIBELS benchmark assessment. Rather than drop students with missing covariate values from the analyses, I imputed a value for these missing covariates and then created a missing data indicator variable.[11] This "missing data indicator approach" is generally not an appropriate way to handle missing data, but it has been recommended in the case of propensity score matching because it allows analysts to match on observed values and on the pattern on missingness in the data (D'Agostino et al., 2001; Haviland et al., 2007; Rosenbaum & Rubin, 1984).

Analytic Strategy: Propensity Score Matching Routine

The final equation used to estimate each student's propensity score was:

$$e_i = P(T_i = 1|X_i)$$

Where e_i is probability of individual *(i)* receiving the treatment (enrolling in the program(T_i), given his or her observed covariates (X_i). X is a vector of the student, family, neighborhood, and school characteristics described above and listed in table A.1

[10] The 2010 crime rate is based on the total number of violent crimes reported by the police per 1,000 people in the population. Since the testing data that I used was from the 2010-2011 and 2011-2012 school years, it is possible that the crime rates associated with each school's CSA do not reflect the crime rates during the testing period.

[11] I imputed achievement test scores by assigning students their school's mean value on that examination. I imputed missing values on the center-based pre-K indicator variable by assigning those students a value of zero (no center-based pre-k) for that variable.

of Appendix A. There are a number of estimation strategies available to analysts who wish to estimate a propensity score. The most common approach is to estimate a parametric logistic regression model; advances in statistical software have also allowed analysts to experiment with non-parametric methods such as generalized boosted models (gbm) (Stuart, 2010). In this study, I primarily relied on parametric logistic regression to estimate propensity scores, however, in analyses that required using the propensity score as a weight, I use generalized boosted regression models.[12]

After estimating a propensity score, an analyst must decide how to use that propensity score to identify a treatment and comparison group that are balanced in their distribution of potential confounders. Because I was interested in the average treatment effect on the treated (ATT), I used matching methods (K:1 nearest neighbor matching) and weighting strategies (weighting by the odds of treatment) that helped me to construct a comparison group that looked just like the treatment group on all observed covariates. When implementing nearest neighbor matching methods, all treatment group cases were matched to one or many untreated cases that had the closest propensity score to them. Those comparison group cases that were not matched to a treatment group case were discarded. Increasing the number of comparison group cases can improve the precision of treatment effect estimates. Importantly however, sometimes this improvement in precision also increases bias in the sample because comparison group cases are selected that have propensity scores which are actually far away from the treatment group case.

[12] Most of the research literature using propensity score models rely on logistic regression to estimate the propensity score. Logistic regression assumes that the relationship between covariates and the outcome (treatment selection) is linear. While the analyst may include interaction and polynomial terms to account for non-linearity, the analyst must make this decision about each individual covariate. Generalized boosted regression is a nonparametric approach to estimating the propensity score, and as a result is more flexible way of modeling the relationship between covariates and the outcome of interest (assignment to treatment) (McCaffrey, Ridgeway & Morall, 2004; Stone & Tang, 2013).

For this reason, I experimented with K:1 nearest neighbor matching (increasing the number of control cases matched to each treatment case) until I found that my attempts to improve precision were at the expense of bias. The reduction in bias between the treatment and control group after matching is reported on in Chapter Four.

So long as every member of the treatment group can be matched to a control group member that has a comparable propensity score, nearest neighbor matching offers an intuitive way of identifying a matched comparison group and estimating the average treatment effect on the treated. Importantly, however, it is difficult to achieve balance between a treatment and control group if the size of the untreated population is not much larger than the treated population. When I was selecting comparison group members from all students who did not enroll in any program (n=5,665) for comparisons between students in the half- day program and those who did not enroll in any program and for comparisons between students enrolled in the full-day program and those who did not enroll in any program, I was able to implement nearest neighbor matching because there were many more untreated subjects (n=5,665) than there were treated subjects (n=345 & n = 341). However, when I conceived of enrolling in the full-day program as the treatment condition and enrolling in the half- day program as the control condition, I had very few "untreated" subjects from which to select a comparison group. In a situation like this, an analyst can use the propensity score as a weight in the outcome analysis. This procedure is sometimes referred to as weighting by the odds of treatment (Stuart, 2010). When weighting by the odds, all treatment cases are assigned a weight of 1 and the untreated cases are assigned a weight that is proportional to their propensity score ($\frac{e_i}{1-e_i}$). This weighting scheme essentially "weights up" untreated subjects who look very similar

to treated subjects (those with high propensity scores) and "weights down" those who look very different from the treated subjects (those with low propensity scores) (Stuart, 2010).

After implementing these methods, I performed graphical and numerical diagnostics to determine whether I had achieved sufficient balance between the treatment and control groups. To assess balance after matching I compared the distribution of covariates in the matched treatment and comparison groups. Specifically, I considered the difference in the means of the matched units and reduction in the standardized bias between the treatment and control groups before and after matching. A standardized bias is the mean difference in the treatment and control group divided by the standard deviation in the original treatment group. Analysts generally agree that a covariate is balanced in the treatment and control group so long as the standardized bias is not greater than 0.25 (Ho et al., 2007).

Analytic Strategy: Outcome Analysis

After identifying the best matching method, I proceeded with my outcome analysis. The first step of my outcome analysis was to identify the effects of enrollment in academic and non-academic summer school resources on a student's reading test score, which is my most direct measure of cognitive skills. To do this, I regressed a student's fall 2012 ORF score on treatment group status, grade level, spring 2012 score, and background characteristics (gender, race, and family income). The final equation for the outcome analysis is as follows:

$$y_i = \beta_o + \beta_1 t_{1i} + \beta_2 g_{2i}{}^{+} + \beta_4 x_{4i} + \beta_5 C_{5i} + \epsilon_i$$

Where y_i is a student's fall 2012 ORF score, *t* is a student's treatment group indicator, *g* is student's grade level, *x* is a student's spring 2012 ORF score, and *C* is a vector of student characteristics including race, and gender. β refers to the fixed parameters to be estimated. ϵ_i is the error term that is assumed to be normally distributed with a mean of zero and constant variance.

The second step of the outcome analysis was to identify the effect of the offer of academic and non-academic resources on student grades and attendance. First, I estimated the effects of the programs on reading grades. I conceived of reading grades as a reflection of student literacy skills (cognitive skills) and academic behaviors (non-cognitive skills). Next, I estimated the effects of enrollment on a student's non-cognitive skills by estimating the effect of the programs on a student's first quarter attendance rate and first quarter math grade.

Student grades (unsatisfactory, poor, satisfactory, good and excellent) were measured as ordered categories and, as a result, I used an ordered logit model to estimate treatment effects. Ordered logit models assume that the response variable is a continuous variable, and that the observed categories capture an individual's placement on that continuous variable. If the response categories are ordered and truly represent a single continuous latent variable, we can make the proportional odds assumption that the relationship between the response variable and all independent variables is the same across response categories.[13]

[13] I tested proportional odds assumption by also estimating a multinomial logit model and then using the AIC and BIC information statistics associated with each model to determine which of the two models (ordinal or mulinomial) had better fit with the observed data.

A student's attendance rate was observed as a continuous variable that was calculated by dividing the number of days that a student attended school during the first quarter of the school year by the number of days that he or she was enrolled in school during the first quarter of the school year. Because this response variable was measured on a continuous scale, I used a linear regression model to estimate treatment effects.

A student's first quarter grades and attendance were likely influenced by individual and school characteristics. Although I was not interested in determining the school-level predictors of these measures, it was important that I account for the clustering of students within schools in my model. Failure to account for this clustering would have led to erroneously deflated standards errors, making a Type I error more likely. To address the clustering of students within schools, I used clustered robust standard errors in both the ordered logit and OLS regression models.

The model estimating student grades is as follows:

$$\log\left(\frac{p(\gamma_i \leq j)}{1-p(\gamma_i \leq j)}\right) = \alpha_j - (\beta_1(t_i) + \beta_2(g_i) + \beta_3(l_i) + \beta\lambda_4(C_i))$$

Where $\log\left(\frac{p(\gamma_i \leq j)}{1-p(\gamma_i \leq j)}\right)$ is the log odds that student *i* is rated by their teacher as "excellent" as opposed to "good, satisfactory, poor or unsatisfactory", *t* is treatment group indicator, *g* is student's grade level, l is student's attendance rate in the 2011-2012 academic-year, and *C* is a vector of student characteristics including race, gender, and students' spring 2012 literacy test score. The parameters ($\beta_{0\ldots4}$) are the fixed parameters to be estimated.[14]

[14] The likelihood of underestimating the treatment effects were elevated in the analysis of student grades because of concerns about ceiling effects in the grade data. If the non-cognitive skills of high-achieving students in the treatment group were positively impacted by the program, I may not have been able to discern these effects in the grade data because those students would have likely reached the "ceiling" of the

The model estimating student attendance rates is:

$$y_i = \beta_o + \beta_1 t_{1i} + \beta_2 g_{2i}{}^{+} + \beta_3 l_{3i} + \beta_4 C_{4i} + \epsilon_i$$

Where y_i is the predicted attendance rate of student *i*, *t* is treatment group indicator, *g* is student's grade level, l is student's attendance rate in the 2011-2012 academic-year and *C* is a vector of student characteristics including race, gender, and students' Spring 2012 literacy test score. The parameters in β are the fixed parameters to be estimated. ϵ_i is the error term that is assumed to be normally distributed with a mean of zero and constant variance.

Analytic Strategy: Sensitivity Analysis

I conducted a sensitivity analysis after the outcome analysis to address concerns about unobserved confounders. For example, we know from prior research that Baltimore City parents who attended church regularly and parents who had many children in the household were more likely to send their child to Teach Baltimore (Borman et al., 2005). These two variables are not observed in my dataset. As a result, these two variables and other unobserved variables that are potentially related to children's likelihood to enroll in a summer program (such as parental education level) may have biased my results. The goal of the sensitivity analysis was to identify how robust my findings were to unobserved confounders.

I utilized Rosenbaum's primal approach to conduct my sensitivity analysis (Rosbenbaum, 2002). This approach allowed me see the extent to which the unobserved

---

grading scale. To address these concerns, I experimented with adding higher-order terms for the continuous measures of prior achievement (high-stakes reading and math scores). These higher order terms allowed me to account for the potential non-linearity in the relationship between prior achievement and student grades. I retained those terms in the model if they were significant and improved model fit.

confounder would have had to increase the odds of receiving the treatment in order to make the treatment effect estimate statistically insignificant. It is important to note that the primal approach to sensitivity analysis can be thought of as conservative in that it may "overstate the study sensitivity" because it assumes that there is a perfect association between the unobserved confounder and the outcome (Liu, Kuramoto & Stuart, 2013: 578).[15]

Qualitative Data and Methods

The goal of the qualitative analysis featured in this dissertation is to describe the ways in which resources and risks present in high-poverty neighborhood and family contexts influence children's summer learning experiences. By exploring heterogeneity in the summer learning experiences of a sample that was relatively homogeneous in regards to race and class,[16] I was able to develop new hypotheses regarding why low-income African American children often (but not always) lose academic ground when school is not in session. The objective of data and analysis featured in the first qualitative chapter (Chapter Four) was to describe how low-income African American parents of first grade children who were not attending a summer learning program managed the resources and risks present in their family and neighborhood environments to create their children's summer learning experiences. The objective of the data and analysis featured in the

[15] The primal approach to sensitivity analyses is only one of many ways that an analyst can assess the sensitivity of results to an unobserved confounder (See for review Liu et al., 2013). I relied on the primal approach because it can accommodate a continuous outcome, it did not require that I make assumptions about the prevalence of the unobserved confounder in the treatment or comparison groups, and it can be thought of as a conservative test (Liu et al., 2013).

[16] I defined social class in the qualitative study in a way that is consistent with indicators that previous studies on summer learning have used (Entwisle et al., 1997; Chin & Phillips, 2004). Specifically, families were considered working class or poor if the child was eligible for free or reduced priced meals, the primary caregiver(s) did not have a 4 year college degree, and the primary caregiver(s) did not hold a position that entailed managerial authority or drew upon "highly complex, educationally certified skills" (Lareau, 2002: p. 751). With one exception, all of the primary caregivers in the study met these criteria. One respondent (Thomas—a child's grandfather) held a 4-year college degree, though the child qualified for free or reduced priced meals and Thomas was not working at the time of our interview.

second qualitative chapter (Chapter Six) was to describe the process through which low-income African American parents of elementary school students made decisions about whether to enroll their first graders in a summer learning program. In the proceeding sections, I describe the sampling design and recruitment strategy, data collection techniques, and analytic strategy that was utilized for the analysis featured in both chapters.

Sample

The parent sample recruited for this study was drawn from the first grade student population at Springfield and Cedar Elementary, which are two high-poverty elementary schools located less than ¾ of a mile apart from one another in Baltimore City. My decision to purposefully sample two schools located in the same high-poverty neighborhood was guided by the heterogeneity assumption (Small, 2013) embedded in Mario Small's conditional approach (2004) to ethnography. As Small (2004) explained, the essential component of his conditional approach is that the analyst does not use "commonality but variation as the foundation for the analysis" (p.13). In his study of how neighborhood poverty influences social capital, he used ethnographic data from a single high-poverty neighborhood to understand why neighborhood poverty is sometimes associated with low social capital and is sometimes not. He noted that the predominant approach in the ethnographic neighborhood-effects literature had been to take as a starting point the findings from the quantitative studies that, on average, neighborhood poverty is associated with low social capital and then to search for mechanisms that could explain this association. His conditional approach takes as its starting point that neighborhood poverty is "sometimes associated with low social capital and sometimes

not—and then asks why…The assumption is that within any given neighborhood some people will have low social capital and some will not and that this variation is not random" (p.13).

For the qualitative analysis featured in this dissertation, I chose *not* to take the documented association between low socioeconomic status, low levels of summer activity participation, and low rates of summer learning (Benson & Borman, 2010; Entwisle et al, 1997; Heyns, 1978) as my starting point. Instead, guided by Small's work (2004; 2013), the objective of my study was to investigate how family characteristics and neighborhood conditions give rise to variation in the summer learning experiences and achievements among low-income urban elementary school students going to school in the same high-poverty neighborhood.

By sampling respondents from schools located so close to one another, I sought to "hold constant" the respondents' neighborhood context so that I could more clearly see differences in the ways in which parental characteristics interact with a relatively stable set of neighborhood conditions to influence children's out-of-school time experiences. Although the two schools occupy different community statistical areas, my conversations with neighborhood residents and community association members confirmed that the schools were located in the same neighborhood in the eyes of community's residents.[17] Drawing a sample from two schools instead of just one allowed me to see how differences between schools serving similar student populations influenced parents'

[17] It is important to note that parents were not excluded from the study if they were not living in the neighborhood of one of the sampled schools. Six of the 24 parents interviewed for the study were not living in the neighborhood during the summer of 2013. However, these six parents all had significant experience with the neighborhood—all took their children to school in the neighborhood each day, three of the six lived in the neighborhood for many years and only recently move away, and another two of the six had grown up in the neighborhood and/or still had close family living there.

perception of and relationship with the school and their decisions about how their children would spend time over the summer.

My decision to draw my parent sample from the first grade student population of Cedar and Springfield elementary schools as opposed to two schools located in a different community was guided by a number of factors. First, I wanted to sample two schools that were located in a high-poverty neighborhood and served a similar student body. For this reason, I restricted my sampling frame to schools in neighborhoods with a median household income below the citywide median household income for 2010 ($38, 346) and to schools whose student population was predominantly low-income (over 75% qualifying for Free or Reduced Price Meals during the 2012-2013 school-year). Second, I wanted one of the sampled schools to be hosting a summer program and the other to not be serving as a host site school. Third, I wanted to exclude schools that were participating in an intensive school reform strategy intended to augment resources available to students, families, and the broader community all year round. Finally, I wanted to sample schools located within a region of Baltimore City that, during the summer of 2012, the school district had experienced difficulty in recruiting students for summer programming. The district was interested in learning more about how families within this region were making decisions about whether to enroll their students in summer programming. Two pairs of schools in two neighborhoods met my selection criteria. Because I wanted to focus my efforts on only two schools in one neighborhood, when the two principals of the schools within one of the neighborhoods consented to participate, I did not reach out to the other pair that met the selection criteria.

The demographic, neighborhood, and achievement characteristics of the two selected schools are provided in Table 3.2, which also displays the characteristics of the 109 other City Schools' neighborhood (non-charter) elementary schools. As demonstrated in Table 3.2, during the 2012-2013 school year the two selected schools served a student population that was more disadvantaged than the typical City Schools elementary school. In both schools, the low-income student population exceeded 96% whereas the average percentage of low-income students in the non-sampled schools was 91.56%. Additionally, both schools were almost entirely comprised of African American students whereas, on average, non-sampled City Schools' elementary schools had a student population that was 84.66% African American during the 2012-2013 school year. Not surprisingly given the student demographics of these schools, the neighborhood of the sampled schools were almost entirely African American. Whereas the typical City Schools elementary school is located in a neighborhood in which 69.70% of residents were African American, both of these schools are located in neighborhood where more than 96% of residents were African American. These schools are also located in more violent neighborhoods than the typical City Schools elementary school. In 2010, the violence crime rate of the neighborhood of the typical City Schools elementary school was 16.85 crimes per 1,000 residents. In 2010, the crime rate in the CSA of Springfield Elementary was 24.78 and the crime rate of Cedar Elementary was 27.05. As will be discussed in subsequent chapters, neighborhood crime was a common concern among sampled parents.

Table 3.2 reveals some important differences between Cedar Elementary and Springfield Elementary in terms of the demographics of their student population. Cedar

Elementary appears to have served a more mobile student population; during the 2012-2013 school year, 13.57% of Cedar Elementary students had made at least one midyear school transfer before ending up in Cedar Elementary.

The characteristics of the community statistical area (CSA) in which the schools are located would suggest important differences in the neighborhoods of these two schools. Although both had similar racial compositions and violent crime rates, 2010 census data on the median household income of neighborhood residents suggests that Springfield Elementary is located in a more advantaged neighborhood even though the vast majority of its students can be considered low-income. The large difference in the 2010 median household income of the Springfield's CSA and Cedar's CSA is likely because Springfield's CSA includes four census tracts and one of those tracts consists primarily of a local university. Notably however, Springfield Elementary is not located in the census tract of the local university, but is located in the census tract that is adjacent to the census tract of Cedar Elementary. As will become clear in the results section, parents of students at these two schools talked about their neighborhood in very similar ways and did not draw boundaries in the same way that census and local demographers do. In fact, a neighborhood association representative whom I met at the July 2013 meeting of neighborhood association defined the boundaries of the neighborhood in such a way that included both schools. For this reason, I feel comfortable saying that both schools are located in the same neighborhood and that both neighborhoods can be considered highly segregated and high-poverty.

Recruitment

The parent sample was drawn purposefully in an attempt to achieve maximum variation on particular characteristics of interest (student's summer program participation, gender, and school) while maintaining homogeneity in terms of neighborhood conditions and demographics. After getting approval from the school district and the two school principals, letters were sent home in first grades students' backpacks informing parents of the study. I invited all parents at both schools to participate in the study if their child was in first grade during the 2012-2013 school year. The flier described the goals and procedures of the study and noted that parents would be compensated with a $25 gift card for their time. Additionally, I spent 2-3 hours at both schools over the course of three days in June 2013 to pass out fliers to parents as they dropped their students off at school. At both schools, I spoke to almost every first grade parent who walked through the main entrance of each school and only one parent said they were not interested in participating.[18] In total, 24 first grade parents were recruited during student drop-off and I was able to get in touch with and interview 18 of them. The six parents who were not interviewed had non-working numbers when I called them and/or did not respond to multiple visits to their homes.

In July, I attempted to achieve greater diversity in students' summer experiences by initiating a second round of recruitment. After obtaining approval from school principals again, I passed out fliers for the study at a neighborhood association meeting, at the entrance for summer school at Springfield Elementary, and at a bus stop where

[18] Although I attempted contact with all first grade parents through the fliers that were sent home in student backpacks, I only spoke directly to parents who dropped their children off at school. This means that parents of children who did not walk their child all the way into the school, parents who used the back entrance to the school buildings, and parents of children who were absent during the two days that I spent at each school were less likely to be in my sample. Additionally, Baltimore City provides free transportation to students who live more than one mile from their neighborhood school. I did not speak directly to parents of children who took a bus to school.

parents from Cedar Elementary were assigned to drop students off for the summer program. All ten parents of first grade students that I spoke to at these sites agreed to be interviewed. I was able to get in touch and schedule an interview with six of these ten parents.

Making the effort to recruit parents through a face-to-face meeting proved to be a highly successful method of recruitment. Establishing this personal connection with parents in a place that most felt safe or at least familiar (usually the school lobby and/or entranceway) lent me some credibility with parents; I believe this personal interaction at the school helped parents to trust my intentions and feel comfortable signing up to participate. When it came time to schedule an interview over the phone, the parents could put a face to my name and were very willing to welcome me into their homes. By the time I saw them in person for the interview, I had spoken to them at least once in person and usually two times over the phone. These repeated interactions helped me and the respondents feel more comfortable with one another during the interview.

Data collection

With two exceptions, all interviews were conducted in respondents' homes. In most cases, the first 15-20 minutes that I was in a home were spent informally getting to know the respondent (and sometimes his or her family), filling out appropriate consent forms, and answering any questions respondents had about me and the study. This friendly "visiting" allowed the respondent and me to get to know one another and helped to make the interview more like a conversation (Boyd & DeLuca, forthcoming; Edin & Kefalas, 2005). Before starting the interview, I reviewed the consent form and respondents were reminded that all personally identifiable information would be kept

confidential, that participation was voluntary, and that they could skip any question they did not wish to answer. All respondents agreed to have their interviews recorded.

The interviews can be considered both in-depth and semi-structured. I consider the interviews in-depth because they were "modeled after a conversation between equals rather than a formal question and answer exchange" (Taylor & Bogdan,1998: p88). Above all else, my goal in these interviews was to understand respondents' "perspectives on their lives, experiences, or situations as expressed in their own words" (Taylor & Bogdan, 1998: p.88). Notably however, these interviews were not entirely open-ended. Before data collection began, I created an interview protocol that outlined the basic topics that I wanted to address in each interview and questions I could use to address these issues. This interview guide is provided in Appendix A. When interviewing respondents I did not always ask questions in the same order or use the same wording, but was sure to guide the conversation in such a way that all major themes would be addressed (Edin & Kefalas, 2005). I typically spent between 80 and 120 minutes with respondents. After the interviews, respondents were compensated for their time with a $25 gift card. After conducting each interview, I recorded field notes that contained observations about the respondent, his or her neighborhood, his or her homes and other information that might not be captured in a transcript.

All interviews were conducted during the month of July 2013 or in the first half of August 2013. This timing was important. Schools let out for summer recess on June 16, 2013. By waiting until July to start interviews, respondents were able to comment on their child's "typical" summer activities during the current summer and I did not have to rely on parents' recollection of summers past or their plans for future summers.

Additionally, data collection was over before school started in August so that parents' descriptions of their child's school was based on their recollection of the previous school year and not biased by their hopeful feelings about a new school year.

Interviews started with questions about parents' personal histories. I utilized a modified version of Becker's sociological "life history" so that I could "capture the salient experiences in a person's life and that person's definitions of those experiences" (Taylor & Bogdan, 1998: pg. 88-89). These life histories were collected by asking parents to start the interview by telling me the story of their life (Darrah & DeLuca, 2014).[19] This question was answered by some with long and detailed stories of growing up in Baltimore. Others responded to this prompt by providing a brief description of their current experiences as a parent. I let these conversations evolve organically so that I could allow parents to focus on those issues that were most important to them. Importantly however, after allowing parents to tell their own story, I circled back to questions of about the parent's family and schooling experiences, as well as changes in and current status of their employment, housing and family structure.

In all interviews, I also talked to parents extensively about their child who was in first grade during the 2012-2013 school year (focal child). Parents were asked about their child's behavior and personality at home and at school. I asked for the child's schooling history and asked how parents made decisions about when and where their child would attend school. We talked at length about their child's social and academic experiences at school; I consistently probed for specific stories when addressing these topics so as to avoid generalizations. These conversations allowed me to access important information

[19] I learned to begin semi-structured interview this way from my experience working Stefanie DeLuca on her qualitative projects in Baltimore, MD and Mobile, AL.

about the parents' feelings about the school and perception of its quality. I also asked a number of questions that aimed to give me a window into the child's family-life (family structure, parenting practices, household routines/norms, and parent-child relationships). For example, all parents were asked to detail their child's routines during the school year and summer; and all parents were asked how often they observed their child reading at home. Importantly, all parents were also asked to talk about their child's activities during the current summer and previous summers. We talked through their decision-making process regarding the summer activities that their children were involved in. I also asked parents to react to statements regarding summer learning loss and to tell me how their child would spend the summer if money were no object. Finally, all interviews included a section about the neighborhood. Parents were asked to describe the neighborhood and neighborhood residents and to provide details about their child's interaction in the neighborhood (during the summer and school year). Parents who had moved from the neighborhood near their child's school (n=6) were asked to compare their current neighborhood to their old neighborhood. All interviews were digitally recorded and professionally transcribed.

Analytic strategy

Coding and analysis of the transcripts was an iterative process. Based on my literature review and experiences doing field work with low-income families for other studies led by Stefanie DeLuca in Baltimore, Maryland and Mobile Alabama, I started with a list of "sensitizing concepts" that I suspected would be important to understanding the summer learning experiences of the sample (Patton, 1990). This list included such things as perceptions of the neighborhood, school choice, attitudes about summer

learning, parental involvement in school, and primary caregiver's education. As I began to read the transcripts and other themes emerged from the data, I updated this list by revising certain codes and creating entirely new concepts. For example, I had not realized how salient residential instability would be to parents' decisions about how their children spend time during the summer and so I added a code to capture discussion of this interaction. Some of the new codes came directly from the respondent's own theories. For example, a handful of respondents talked about families needing a "break" in the summer. As a result, I created a code called "Summer Break" to capture these discussions. After doing an initial read-through of all cases to determine my coding scheme, I re-read and re-coded all cases with the final coding scheme. A full list of codes used in the analysis can be found in Appendix A.

After coding the interviews, I used visual displays to facilitate cross-case comparisons of cases that participated in a summer program and those that did not and of cases in the two different schools (Creswell, 2012; Yin, 2003). Specifically, I created what Miles and Huberman (1994) refer to as a "conceptually clustered matrix" whereby the cases are ordered in rows and analytic concepts are listed in columns. Reading across rows allows for a quick and thorough understanding of a specific case and reading down columns allows for comparison between individual cases and between groups.

CHAPTER FOUR
SUMMERTIME IN THE CITY: HOW PARENTS MANAGE RESOURCES & RISK OVER THE SUMMER

As discussed in Chapter Two, low-income children in high-poverty neighborhoods are highly vulnerable to experiencing summer learning loss (Borman & Benson, 2010; Entwisle et al., 1997). While this much is clear, researchers and policymakers still seek to learn why it is that low-income elementary school children tend to lose ground over the summer. This chapter describes how a sample of low-income parents of first grade students who attended elementary school in a high-poverty neighborhood managed the resources and risks present in their family and neighborhood environments to create their children's summer learning experiences. The ultimate goal of this descriptive analysis is to elucidate the mechanisms through which summer learning gains and losses occur in high-poverty contexts so that we can identify where policies and programs could effectively intervene.

This chapter begins with a description of the family and neighborhood resources and risks that the parents of low-income first grade students perceived to be present for their children over the summer. Next, I describe the differences between parents in how they managed this environment to create children's summer learning experiences. Finally, I discuss the implications that my findings have for the sociology of education research literature and for policymakers and practitioners interested in curbing summer learning loss and reducing educational inequality.

The analyses presented in this chapter rely on interviews and fieldwork conducted in the homes of parents whose first grade students were not enrolled in formal summer

learning programs during the study period. [20] I chose to restrict the analyses featured in this chapter to this subsample of families (n=14) because I was interested in exploring how families manage in the *absence* of school resources. Importantly, the subsequent qualitative chapter (Chapter Six) addresses the question of why some of the families in the full qualitative sample (n=24) had access to summer program resources and others did not. A snapshot of the demographic and family background characteristics of the parents and children included in this analytic subsample are provided in Table 4.1.

Results

As discussed in Chapter Three, one of the aims of the sampling and recruitment strategy employed for this qualitative study was to achieve homogeneity in participants' demographic characteristics (race and family income) and neighborhood context. By holding "constant" neighborhood context and family resources, I aimed to adopt Mario Smalls (2004) "conditional approach" and see more clearly the mechanisms through which high-poverty contexts often (but not always) lead to summer learning loss. My sampling and recruitment strategy for this analytic subsample was moderately successful. All families in this analytic subsample were African American and all had a household income that was low enough for them to qualify for Free or Reduced Priced meals; no parent in this analytic subsample had earned a bachelor's degree and only two were working full-time. All the families in the analytic subsample were either living in (n=10)

[20] In this dissertation, I use the word "parents" to refer to a child's primary caregiver. Notably the primary caregivers in the subsample featured in this chapter were all their first grade students' biological mother. Many of these parents had multiple children living in their home. As discussed in Chapter 3, all parents in the sample had a child who was in first grade during the 2012-2013 school year. Unless otherwise noted, when discussing a respondent's individual child, I am referring to the child who was a first grader in 2012-2013. Only limited information was gathered about the other children in a respondent's care.

or had significant experiences with (n= 4) the same high-poverty neighborhood.[21] While objectively, these families were managing with similar levels of financial and neighborhood resources and risks, I acknowledged that it was still possible that there were significant differences between families in how they perceived their financial resources and social environments.. With this possibility in mind, my first analytic task was to describe how parents perceived their financial resources and the level of resources and risks available to children in their neighborhood over the summer.

Homogeneity in Perception of Resources & Risks

Parents in this subsample felt very similar to one another about their limited financial resources, the lack of things for children to do in the neighborhood, and the issues of violence in the neighborhood.

Financial resources. Parents in this subsample had very limited financial resources. Only two of the 14 parents were working full-time. This study was not about employment or material hardship per se, but concerns about unemployment and its effect on family resources and on parental mental health were a predominant theme in the interviews with the twelve unemployed or under-employed respondents in this subsample.

[21] Lauren, Amber, Ashley and Monica are the four parents in the analytic subsample who were not living in the neighborhood of one of the sampled schools during the summer of 2013. However, all four had significant experiences with the schools' neighborhood as well as other high-poverty neighborhoods in Baltimore City. Lauren and her daughter had lived in the schools' neighborhood until just a few months before our interview when she left that neighborhood to move to the other side of Baltimore where she could be closer to her mom and where she thought that crime would be less of a problem. Ashley and Amber sent their children to Springfield because they relied on their extended family for child care and their extended family lived in the neighborhood. Monica was living in a homeless shelter when we spoke. She sent her first grader to Springfield because her older children had attended the school.

With the exception of Reanna[22] and Michelle, who referred to themselves as "stay at home moms," all of those who were unemployed were very interested in finding full-time employment and expressed concern over their difficulty in finding a job. Beverly, her two children, and her children's father lost their apartment during the summer of 2012 when Beverly was laid off from her cleaning job on account of her pregnancy. For the past year, she had been staying in one room at her sister's house, which she shared with her two children and their father. Her sister and her two children also stayed in the house. Beverly and her husband turned to a temporary work agency to help them find full-time employment. She said that she rarely got placements with this agency because she is unable take overnight shifts since her six-month-old daughter still needs her in the middle of the night. She listed the many places where she has applied for jobs and said that she would really take anything she was offered: "I mean anything that can pay my bills right now, that can get some money in our pockets, get us our own place."

Just like Beverly and her partner, Gabriella and her husband were both out of work and struggling to find employment. She explained: "It's like we're struggling right now because, see, you would have swore we would be one of the few people that do have employment because my husband, he has an associate's degree in computer networking systems…and then I have many skills as far as teaching children, and I have license in all of that. I still currently go to school [she was enrolled in a 4 year college]." Gabriella's family received temporary cash assistance (TCA) for which she spent time in a workforce development program, but she was still struggling financially. "So any little money that we get we have to penny pinch and we have to struggle and everything."

[22] Names of all study participants and their children have been changed to respect participants' privacy.

Gabriella's financial hardship forced her family to settle on housing that she described as "hell on earth." During the summer of 2013, she was living in a row home with her husband, three young children, and her mother. Half of the houses on her block were vacant and all of the homes on a block adjacent to her's were boarded up. In her three-room home, there were holes in the walls that were covered with masking tape to deter the rats from coming in through the walls. The tiles were coming apart all over the kitchen and Gabriella said there was a hole in the stove that prevented her from cooking. Roaches crawled in and out of the cereal boxes on the kitchen counter; flies swarmed around the living room where the children were playing and watching television. Gabriella said that it was recently discovered that there was lead paint in the walls. She said the health department and "environmental agency" had told her that they would sue her landlord, whom she hadn't seen in over a year despite her frequent complaints about the conditions of her housing.

Unemployment not only affected respondents' level of material hardship. Unemployment and financial hardship also influenced mental health. Ashley, a single mother of three school-age children, had been working as a medical assistant at a hospital for four years. She loved her job and her colleagues, but she was asked to leave in March of 2013 after she failed a certification test: "I was so disappointed. I'm like 'Oh my god, why is this happening? Oh my god.' I was so hurt." Four months after being laid off, Ashley was still unemployed and becoming very concerned that her unemployment checks would soon stop coming. She explained: "I mean, I have a little bit of savings, thank god, but you know, they're going to run out eventually. I need to go back out. I need to work." The anxiety about her unemployment and limited resources was causing

her clear distress. In telling the story of her current job search, she said: "I feel like crying right now."

Leah was also desperate for a job and was explicit about the ways in which her unemployment affected her feelings about herself. When asked to tell me the story of her life, unemployment was a central theme of her narrative: "My life, I felt like it wasn't where I wanted it to be, and I have two kids, and I still felt like it's not where I want it to be….Like first of all, I don't have a job. That's the first thing. I don't have a job, and that's like the main thing." Leah felt bored with her life and very much wanted to get on a path toward a nursing degree. However, she said that something always stood in her way and she was incredibly frustrated by how difficult it was for her to achieve her goals: "It's just hard. It's hard, and I want a job so bad like sometimes right now, I don't want to be right here. I want to be working. I don't want to be sitting right here. I really don't."

Prior research has demonstrated that material hardship and parental unemployment have direct and indirect effects on parental mental health, parenting practices, and multiple measures of child well-being (Gershoff et al., 2007; McCloyd et al.,1994; Mistry et al., 2002). While the data did not allow me to explore these causal pathways, the level of distress expressed by unemployed parents in the sample underscores the negative effect that material hardship and job loss have on parental mental health. Children who are not enrolled in a summer learning program spend considerably more time with their unemployed parents over the summer than they do during the school year. Therefore, it seems likely that the direct and indirect negative effects that material hardship and parental job loss have on child well being are amplified during the summer months for children who are not enrolled in a summer learning

program. Additionally, as will be demonstrated in the subsequent section on summertime parenting practices, the multiple stressors associated with material hardship such as residential and family instability appear also to be associated with the ways in which parents interact with their children over the summer.

Neighborhood resources and risk. Ten of the 14 the families in the analytic subsample, and 18 of the 24 families in the full qualitative sample, were living less than a mile from one of the sampled schools. As discussed in Chapter Three, these schools were located in community statistical areas in which the violent crime rate far exceeded the citywide rate. With the exception of Dana who said she did not have any concerns about safety in the neighborhood, all of the parents who lived in the neighborhood of the two sampled schools (n=18) spoke of safety concerns in the neighborhood. Parents described drug trafficking, gun violence, and fighting among unsupervised children in the neighborhood. Even those parents who were generally positive about the people they knew in the neighborhood and felt confident that they could keep themselves safe, referenced issues of violence in the neighborhood.

Melissa, Lisa and Tia complained of drug sales taking place right outside their homes. Lisa described the neighborhood as "drug dealers like crazy" and was angered by the disrespect they showed her by not even trying to hide the fact that they were selling drugs. Similarly, Melissa was frustrated by the way in which the drug activity influence her family's lifestyle:

> You got the drug boys and then it's like half the time, to me, you can't even sit outside to get peace. Like you go outside out back or whatever, it's like they may be in the alley or it's just. But my momma always say "Remember we live in the

inside, not the outside," but you know who want to be in the house 24/7? I know I don't.

Tia was concerned about illicit activities in the vacant housing close to her home; she said, "I don't want my babies seeing that."

Gun violence was also a major concern for parents. In describing the neighborhood, Leah said: "You never know when somebody going to start shooting." Although Gabriella personally felt safe in her neighborhood, she said that, "most every night they're always shooting." In discussing her concerns about neighborhood safety, Tonea said that two people were shot at a playground around the corner from the low-rise public housing project in which she was living. She was particularly distraught by this story because twelve neighborhood kids saw it happen and she knew one of the men who was killed.

There was also widespread agreement that there was a lack of things for children to do in the neighborhood over the summer. Parents who grew up in the neighborhood lamented the perceived loss of community institutions that once offered children free things to do over the summer. Beverly spent much of her childhood in the house that she and her family of four were currently staying in. She reminisced about the neighborhood that she remembers as a child: "When I was younger, the lady Miss Lee that lives up the street, used to live, I mean; we had every activity you can name - ping pong, from golf lessons, like she had everything. But now it's like the rec shut down." Beverly felt that the lack of things for kids to do in the neighborhood was directly related to the violence over the summer:

> Every neighborhood changes over the summer because it's hot and there's nothing for[the kids to do]…When it's hot everyone comes out. And that's what's causing I guess all the violence and the commotions because there's nowhere for these young kids to go. There's nowhere.

Just like Beverly, Reanna attributed the violence in the neighborhood to a lack of community resources:

> The violence is bad, but I hope it gets better. It's just that kids don't have nothing to do. And if they had things to do with their time and people to take time to do stuff with them, there wouldn't be as much crime.

Parents talked about a few playgrounds in the neighborhood, but many felt they were not safe enough for the children to play in. In fact, parents told me that the playground behind Cedar Elementary was burned down by a group of children right after the school year ended. Michelle was living across the street from Cedar Elementary during the summer of 2013 having just moved there a few months earlier from another neighborhood on the other side of Baltimore City. The house's proximity to the school's playground is one of the things that initially attracted her to it:

> I need him to be able to go outside and be able to play and, if he wants, to ride a bike or go outside and draw on the ground with chalk. I want my child to be a little more safe. So it was that; I thought it was cool the playground was across the street and the field, 'okay you can go over there and play football.

Soon after she moved, however, Michelle realized that the neighborhood was not going to be a good influence on her son. In describing to me why she was concerned about the children in the neighborhood, she talked about the burning of the playground as

emblematic of how "bad" the children are: "These children. They burnt the playground….They set, put gasoline on the playground and set it on fire…It's just like they run around cursing and fighting and just too much; it's too much."

Heterogeneity in Summertime Parenting: Promotive & Preventative Parenting Strategies

While this subsample was relatively homogenous in terms of their financial resources, perception of neighborhood resources and risk, and in their first grade students' lack of involvement in a formal summer learning program, differences were observed in how parents thought about the issue of summer learning loss and in the types of parenting strategies they enacted over the summer. Prior research on the parenting strategies of low-income families in high-poverty neighborhoods has noted that parents managing in high-poverty contexts use both promotive and preventative parenting strategies to facilitate positive youth development (Furstenberg et al., 1999; Jarrett & Jefferson, 2003).[23] According to Furstenberg and colleagues (1999), promotive parenting strategies are those that foster a child's talents and behaviors, such as securing high-quality learning experiences outside of the home, and, educational or enrichment activities that a parent does with a child. Promotive parenting is also often indicated by a parent's attitude toward his/her child's academic and social development. Preventative parenting strategies are those that reduce a child's exposure to risk (Furstenberg et al., 1999) such as the institution of rules and routines and the implementation of "oversight strategies" that keep children safe when they are outside of their parent's direct supervision (Furstenberg et al., 1993).

[23]In their ethnographic study of the parenting strategies utilized by mothers living in public housing who had enrolled their child in a Head Start program, Jarrett and Jefferson (2003) referred to promotive strategies as "enhancing strategies" and protective strategies as "buffering" strategies.

The link between promotive and preventative parenting and children's academic and social development has primarily focused on adolescent outcomes and has not taken the seasonal pattern of achievement into account. My data on summertime parenting strategies among this sample of elementary school parents in a high-poverty neighborhood suggest that these constructs are critical to understanding summer learning loss among early elementary school students. Over the summer, promotive parenting strategies of early elementary school children include a parent's expressed attitude toward summer learning as well as the in-home academic and enrichment activities that they engage in *with* their child. Notably, finding and enrolling a child in a high-quality summer learning program is another type of summertime promotive parenting strategy. [24] As they do during the school-year, preventative parenting strategies of young children in high-poverty neighborhoods likely include tight oversight of a child's social activities and the insistence that young children be under supervision when outside (Furstenberg et al., 1993; Furstenberg et al., 1999). It seems likely that preventative strategies matter even more for child development in high-poverty neighborhood over the summer since, during the summertime when the weather is warm and children are not occupied in school, children are more likely to be spending significant time outside their homes.

Similar to Furstenberg and colleagues (1999), who found significant heterogeneity in the family management strategies used by parents of adolescent within low-income neighborhoods, I found that despite relative homogeneity in the perceived neighborhood context and financial resources, parents in this analytic subsample differed significantly from one another in their use of promotive and preventative parenting. My

[24] Bennett and colleagues (2012) argued that afterschool activity participation is a way in which working class parents enact promotive and preventative parenting logics.

analysis suggests three types of summertime parenting—*summer teacher* parenting, *aspiring summer teacher* parenting, and *hands-off* parenting. Table 4.2 outlines the three types of parenting identified in this subsample and describes how they differ from one another in terms of their attitude toward summer learning and their enactment of promotive and preventive parenting strategies. In the paragraphs that follow, I describe these three types of parenting and then discuss the implications these findings have for our understanding of summer learning loss and our attempts to curb these losses through public policies and programs.

***Summer teachers*: "If they don't get into a summer program, I'm their summer-teacher."** Four of the parents in my sample described their use of promotive and preventive parenting strategies that have been found to support child development in high-risk neighborhood (Furstenberg et al., 1999). Specifically, these parents created a daily summer routine for their first graders, indicated that they consistently worked with their children on academic activities, made efforts to enrich their children's summer experiences with fun activities inside and outside of the neighborhood, closely supervised their children's interactions in the neighborhood, and kept tight control over their children's whereabouts and activities when their children were not under their direct supervision.

Promotive parenting. Summer-teacher parents consistently engaged in academic activities with their first grade students. A meta-analysis synthesizing the research on the effects of parental involvement on young children's academic development demonstrated that parental involvement has its most positive effect on academic development when the parent tutors a child on a specific academic activity (Senechel & Young, 2008). Notably,

summer-teacher parents were generally able to give examples of specific academic activities that they or another adult did *with* their children. Reanna said she engaged in reading and math activities with her son for at least an hour each day: "I'll let him study for an hour-half an hour reading, half an hour math. We're on adding right now. So maybe next week we'll be on subtraction if we get to adding today."

Tonea, a single mother of two school-age girls (first grader and seventh grader), was unemployed and living in public housing during the summer of 2013. She referred to herself as her two daughters' "summer-teacher" and saw them being at home for the summer as an opportunity to further their academic skills: "I can teach you all here myself for free….And we can have fun too, and learn and all of that." She said that her daughters spend four hours each day working on educational activities over the summer. She designed math lessons for them, they read books from the library, and they worked in educational activity books that Tonea asked their grandfather to buy for them. In July, Tonea was working with her first grader on converting money (dollars to cents) and on telling time. She was also working hard to make sure her daughter maintained or gained reading skills by reading with her each day. She described their reading routine: "

> Like when we're sitting beside each I'm going to say 'I'm going to read - I'm going to always read the pages closer to me, you read the pages that are closer to you'... So we take turns back and forwards read, and she's an excellent reader.

Summer-teacher parents took responsibility for their children's academic progress and pride in their accomplishments. Reanna said that she thinks children tend to fall behind over the summer "because most parents don't have time to actually sit with their children." She felt that being a "stay at home mom" afforded her the opportunity to "say

'Okay, it's reading time. It's math time.'" Reanna felt proud that her efforts with her son were paying off. She referred to him as an "excellent reader" multiple times throughout the interview and was hoping to get him into a charter school for the 2013-2014 school year since she felt that his current school was not pushing him to reach his potential.

Furstenberg and colleagues (1999; 1993) have found that promotive parenting entails more than just fostering a child's academic development; it also involves cultivating social and emotional development. Tonea said that one reason she always works with her daughters over the summer is that she wants them to feel confident when they start the next school year. When the girls' grandfather buys them activity books for their summer lessons, she makes sure that he buys them books on the grade-level they are entering rather than the one they are leaving. She described why this strategy was important to her and how it paid off for her older daughter at the start of 2012-2013 school-year:

> My oldest one told me one day, she was like, "Ma, don't you want the stuff that I had in my book [summer activity book]?" She said the teacher asked did anybody know it? She said I was one of the only ones in the class that knew it. I said, "See that." I said, "You should have felt real proud about that." Yes, she was able to show two other students how to do the work. So I was like real proud of that. So I will never stop doing that. I will always work with them during the summer the way I do. I wish I could encourage other parents to do the same. It really helps. It really helps because you don't want their mind to get drifted away from the work.

Reanna was also attentive to her son Eric's social and emotional development. She said that she had recently become concerned about Eric's attitude toward school since he had announced to his mother that he did not want to go to college. As a result, Reanna started taking him to basketball games at the local university:

> I've been taking him to Sullivan College their little basketball game. They're cheap when you go up there. "You have to go to this school and do that work before you get to get on their team." It's been good. So he's like "Okay, well that's what I have to do."

Summer-teacher parents also promoted their children's learning by motivating them with fun and enriching activities. For example, Tonea told me that in her household, afternoons are dedicated to fun over the summer. She often visited the pool and local playgrounds with her daughters and had recently taken her daughters and their friends out to eat for the fourth of July. Importantly, Tonea accompanied her daughters on these excursions and seemed to take real pleasure in these activities herself: "Majority of times, I be the one taking them skating and certain places." Similarly, another summer-teacher parent, Lisa, delighted in the fun activities that she did with her daughter over the summer. She tried to make her house "camp without like actually going to camp." For example, in addition to academic activities, she spent time doing art projects with her daughter. Their most recent project was making homemade slime. Lisa also enjoyed taking her daughter on fun child-centered excursions to places like Chuck E. Cheese's and the bowling alley.

Preventative parenting. Being a *summer teacher* parent in a high-poverty neighborhood means not only organizing academic and enrichment activities for children.

Summer teacher parents must also prevent their children from being exposed to risks in the neighborhood. *Summer teacher* parents were vigilant about supervising their children's activities or employing "oversight" strategies when their children were outside of their care (Furstenberg et al., 1993). All four *summer teacher* parents said that they did not let their first graders be outside alone. When outside the house, the children were either under their watch or with a trusted family member or friend. When asked whether her daughter was allowed to play outside, Lisa said:

> Oh, I don't let her go outside by herself due to the fact if you look on sex offense registry, it's dotted all up. They all around. You don't know who and don't know why, but… So she goes out, I'm sitting on the steps, across from my neighbor, where she might be playing. Or if she across the street with the kids, I'm sitting on the steps. You know what I'm saying? You just know not. Not in my house anyway.

Like Lisa, Tonea insisted on strict supervision of her children when they were outside of her home. If she was not physically with them, she ensured that they were with a trusted adult. Tonea described how she decided who she could trust with her children.

> I guess depending on the longest I've known them, how they treat their kids, seeing how they interact with other people's kids. Because some people could be nasty, some people could be cruel. So that's why I said I barely even let them go with too many people. Now like I said my sister, my brother, their grandfather, you can go ahead; but just a regular neighbor, next door person, no, uh-uh.

Notably, one reason why Tonea, Reanna, and Lisa were able to enact preventive parenting strategies is because all three did not work outside the home. Although these

families would likely have benefitted from the material resources that would become available to them if these mothers were employed, the time that being outside the workforce afforded these parents was critical to the success they had in creating a camp-like experience for their children at home. As discussed in the subsequent description of *aspiring summer teachers*, parents with time commitments at their job, school, or work program often ended up being unable to promote their children's academic talents in the way that they wanted to. These parents had to leave their children in the care of family members or day care providers who the parent felt were not promoting their children's academic development or preventing their children from being exposed to risks in the neighborhood.

Amber is an example of a *summer teacher* parent who worked outside the home. Amber was so concerned about the risks here son, Terrance, might face in the schools' neighborhood over the summer that she decided to send him out of state of the summer. Amber worked as a nursing assistant and had a very demanding schedule; as a result, she relied on a local family member [her grandmother] to watch Terrance while she worked. Amber had recently moved herself, Terrance, and his baby sister to a lower poverty neighborhood in Baltimore City. After the move, she decided to keep Terrance in one of the sampled schools [Springfield Elementary] because it is close to her grandmother's house and Amber relied on her grandmother for afterschool childcare. After Terrance started getting into trouble at school during his first grade year, Amber became concerned about all the time he was spending outside at her grandmother's house. Even though her grandmother was willing to watch Terrance for the summer, she felt that he would be exposed to too many dangers if he spent the summer at her grandmother's house:

> My grandmother, she's 80. I mean she watches him. She'd go get him and things like that -nothing bad like that - she's stable enough to watch him but she's like, "He goes outside. I tell him 'no, you're not going outside,' he acting a fool on me in here," so she'll let him go outside. They play with fake guns and… I'm like "what are you doing?" I caught him one day - he had a water gun, standing over the top of… I was like, "Where did you learn this stuff?" We got to go.

Because of her concern about him staying at his grandmother's house, Amber decided to send Terrance to his paternal grandparents' house in Georgia for the summer:

> So I say he needs to go to Georgia cause I don't want him around my grandma's way. Always there's gun violence, drugs and all that around there, especially in the summertime when it gets hot, the crime rate goes up. I don't want him outside around there and I'm not physically sitting outside with him, nobody's physically sitting outside with him.

The decision to send Terrance to Georgia was not only preventative, it was also promotive. Amber felt that spending time with his grandparents would improve her son's performance in school since his grandmother is a "home-school teacher" and would be doing academic work with him. She also liked that the grandparents' home would be disciplined and potentially help Terrance with some of the behavioral issues he was having at school. She explained:

> The atmosphere [at Terrance's grandparent's house] is different and their living is different. Their religion - they're Jehovah's Witness so you can imagine… I don't know about the religion part cause I'm not a Jehovah's Witness, but being as though their religion makes them more stern, so it's like more discipline. So

that's what I'm hoping he get out of it, more home training and things. He got home training; he doesn't ever break stuff, but you know, they're more proper like. I don't know. It's different. He told me they'd been to the library; she [the gradmother] said he's gonna take some swimming lessons.

Aspiring summer teachers. Aspiring *summer teacher* parents are those who express concern and take responsibility for their children's academic and social development over the summer, but are unable to consistently institute promotive or preventive parenting strategies. Ethnographic research on class differences in parenting logics has emphasized that working class parents are not as concerned as middle and upper class parents are about cultivating their children's academic development (Lareau, 2003). In contrast to these findings, I find that all but three of the parents in this analytic subsample of families who did not enroll their children in a summer learning program (n=14) were well-aware of the issue of summer learning loss and most indicated that they thought it was a parent's responsibility to prevent it. The following statements made by the group of parents that I have classified as "aspiring *summer teacher* parents" were typical among *summer teacher* parents and aspiring *summer teacher* parents:

Tia: Because a lot of people feel like it's just the teacher's responsibility to teach the children, and that's not true; you have to actually start it at home. When they're out of school for the summer time, that's your [the parent's] time to kind of keep them current, so when they go back they'll know what they're doing.

Ashley: I think in the summertime they [kids] just feel like "School is out. No more school. I'm not doing no math work. I'm not doing no reading." And the

parents, they don't follow through. They don't follow… They let it happen. It's the parents. It's up to the parents. You do have some kids that enjoy reading or enjoy learning. So some kids will just go and pick up a book and read. Or some kids will want to be a part of some type of learning experience or whatever. But some don't. So the parent has to enforce that… But it's the parents, the parents have to reinforce some things.

Michelle: Because you can't - learning is different from riding a bike. You learn how to ride a bike, okay you never forget. That's something that you can not do for six years and get on a bike and you still remember how to do it. You get math problems, you learn how to do this math problem, and come June, July and August you're not even trying to do it. September you done forgot the whole process where you started. You know, what goes where - they start letting stuff slip.

Monica: When the child is not like in the summer school I see the difference. If the child is in summer school and they get back to going to school, they already like know half the stuff on a different level. From a child that is not in summer school, they are far behind….I'm just having my concerns about that since my two daughters are not in summer school and their older brother in summer school, he's going to be in a higher reading than them and they're going to be less.

Although Tia, Ashley, Michelle, and Monica were similar to the four *summer teacher* parents in their awareness of and concern about summer learning loss, during the

summer of 2013 they were unable to institute promotive and preventive parenting strategies that prior research has shown to be associated with children's academic development in high-risk neighborhoods (Furstenberg et al, 1999). I refer to parents who wanted to support their children's academic development over the summer, but did not consistently require their first grade students to do academic work over the summer or did not prevent their children from encountering risks in their high-poverty neighborhood as *aspiring summer teachers*. These parents (n=7) cared about their children's summer learning and understood the risks their children might encounter in the neighborhood, but were unable to translate these beliefs and concerns into their family management strategies over the summer.

Promotive strategies. *Aspiring summer teacher* parents typically described a summer routine for their children that included a lot of unsupervised, unstructured time. Tia is the mother of four school-age children. Her first grader was the youngest in her household and was not involved in any summer activities. She said that she tried to take him out for an activity each day over the summer but also sometimes needed to tell him: "You're going to have to find some way to entertain yourself." Although many *aspiring summer teacher* parents said that their first graders werereading or doing some academic work over the summer, engagement in these academic activities was not routine and often depended on whether or not the child took the initiative to read a book on his/her own. For example, when asked how often she sees her son reading in the summer, Michelle said, "I'm not going to say every day, but a couple of times out the week because he's getting too relaxed so I had to bring it up. Like I just, oh it's over there, he was reading a book yesterday." Clearly Michelle knew that reading is important since she thought she

needed to "bring it up" with her son when she noticed that he wasn't reading too much. Importantly however, unlike *summer teacher* parents like Tonea, who established daily routines around reading and engaged in the activity *with* their child, Michelle seemed to leave the choice about what and when to read largely up to her son. When asked about his routine on a typical summer day, Michelle said:

> He wakes up, wants breakfast of course. "Can you get me something to drink?" We get up, we do breakfast, I might sit and play a game with him, Uno or we got Candyland sitting out; that's the big game….He'll sit and lounge around till like noon and then he wants to put clothes on and he wants to see if anybody's outside or he'll get on the computer. That's a typical day.

So, while she knows that reading and academics are important, literacy activates and academic work did not figure into her son's daily summer routine.

Another difference between *summer teacher* parents and *aspiring summer teacher* parents was related to how intentional they were with their children in the types of academic activities that they engaged in. Whereas *summer teacher* parents like Tonea and Renna were very specific about the books their children were reading and were intentional in the math lessons they were doing, *aspiring summer teachers* let academic activities happen more naturally. For example, when I asked Beverly to tell me how often she sees her son, Jason, reading over the summer, she said he reads everyday. Upon elaboration however, it became clear that her definition of reading was somewhat fluid and likely differed from *summer teacher* parents and from the school system.

> If we're in the house, I mean Jason reads. Bus stop signs. We can be on the bus, Jason can tell you the directions; he'll read the directions on the bus. But my niece

had actually gave him like a little comic book thingie, it's about this thick with different little stories in it. He reads that and he reads to her [baby sister].

Notably, the types of informal literacy activities that Beverly described have been shown to be important to young children's literacy development (Sénéchal & LeFevre, 2002). However, research suggests that Jason's reading would likely progress more if his mother also insisted on him engaging in more formal literacy activities such as having him read aloud to her, checking his comprehension of text while he reads, and/or ensuring that he spend significant time each day reading an appropriately leveled text (Kim & White, 2008; Senechel & Young, 2008)

Preventive strategies. Like *summer teacher* parents, *aspiring summer teacher* parents tended to be very concerned about the crime in the neighborhood and the negative effects that it might have on their children. However, in contrast to *summer teacher*, *aspiring summer teachers* did not utilize preventative parenting strategies with the same intensity that *summer teachers* did. The children of *aspiring summer teacher* parents spent considerable time in unstructured and unsupervised play. Gabriella expressed concern about how violence in her neighborhood, which ranged from physical fights between children to gun violence, might affect her three children:

> People come from different areas in this area and it's zip code just to fight on this block. Like you have people that do not even live on this block, they come here fight. It's crazy…almost every night they're always shooting…It's like a never-ending battle to fight outside influences. It's like you have to deal with what your children see. Like I said my main issue is the violence and the cursing and the yelling and the screaming.

Although Gabriella was clearly concerned about the influence that the neighborhood might have on her children, she allowed her first grader, Jordan, to spend much of his time outdoors. She described her oversight strategy to me:

> He'll play. Like I said, I keep my children in a 4x4 block. So they have a 4x4 radius. They'll go to like, they won't go all the way down to the end of the block. They'll stay up here where I can see them. Like I said, I'm a real stickler for my children. If you're going anywhere where I can't really jump off my porch and get to you, you can't go that far. So they can't go all the way down. They stop at like the light pole down here and then they'll stop at this light pole. They won't go all the way to the corner because these cars through here are ridiculous.

Gabriella was clearly trying to implement a preventative parenting strategy by setting limits on Jordan's movement when he was outside. However, it seems unlikely that her chosen strategy of allowing Jordan to be outside but telling him to say within a confined space would successfully prevent him from being exposed to violence since she stated that fights happen all the time on her block.

Like Gabriella, Beverly also acknowledged the dangers of her neighborhood but allowed Jason to spend up to four hours a day playing with his friends outside over the summer. When Jason was outside, he and his friends "run around, make noise, play Power Rangers, play it, play tag, play ball, ride their bikes, ride their scooters." Like Gabriella, Beverly created boundaries for her Jason, who she described as having "a lot of energy to burn." Beverly said that Jason usually played outside for four hours a day during the summer. She described her oversight strategy: "So he stays on this block by itself, from this alley to that alley. We have a neighbor Miss Lucy, she can see that and I

can see this side." Beverly tried to be "always on the porch" with her son when he was outside. However, Beverly also had a six-month-old daughter in her care who often needed her attention and other distractions (such as our interview) required that she be inside. During our two-hour conversation inside the house, Jason spent considerable time happily playing outside by himself.

Barriers to promotive and preventive parenting. As made clear from the stories of Tia, Michelle, Gabriella, and Beverly, even though *aspiring summer teacher* parents were aware of the importance of academic activity over the summer and concerned about dangers that their children might face in the neighborhood, they did not describe consistent enactment of promotive and preventative parenting strategies. Understanding why these parents were unable to enact these parenting strategies is critical to understanding why low-income children tend to lose ground over the summer and the types of policies and programs that might reverse the trend. The data are not suited for exploring causal pathways between parental characteristics, parenting strategies, and children's summer learning. However, parents' openness with me about the challenges that they faced in their lives makes it possible for me to develop hypotheses that can be tested with other datasets.

Five of the seven *aspiring summer teacher* parents were dealing with residential and family instabilities when I spoke to them during the summer of 2013. I speculate that these recent or impending changes impacted their capacity to engage consistently in promotive or preventative strategies by posing logistical challenges to parents and by negatively affecting their mental health. During the summer of 2013, Tia was in the midst of separating from the father of her children. She planned to move herself and her three

children out of the house in August but was not yet sure where they would go. This impending family and residential instability clearly affected the choices she made on behalf of her children over the summer. She knew that her first grader would likely benefit from attending a summer learning program and initially wanted him to enroll, but she expressed ambivalence about his involvement in formal activities because of her upcoming family and residential change: "It was kind of good [that he didn't go to camp] because, like I said, I'm going through a change anyway so I kind of didn't want to commit to too many things."

Like Tia, Gabriella and her children were also planning to make a residential move. As described above, the poor condition of Gabriella's housing was a major stressor in her life and she was very focused on finding another place for her family to live. Her husband had recently inherited a house from a deceased relative and she planned to move the family there soon. Unfortunately that house did not yet have a functional plumbing system, so they needed to put together money to renovate the property before they could move in. Coming up with this money was difficult for Gabriella since she and her husband were both unemployed. To pay for her current unit and try to save money to renovate her new home, Gabriella was collecting Temporary Cash Assistance (TCA) and attending school full-time so that she might someday secure employment. Her own schooling and her mandatory participation in the TCA workforce program kept her incredibly busy. The stress and time associated with Gabriella's search for employment clearly prevented her from doing the types of activities with her son that she wanted to. In discussing the family's typical routine during the previous school year, she said her schedule "was so hectic my kids barely saw me." Over the summer, her busy schedule

meant that she had to send all three children to daycare instead of sending her first grader, Jordan, to the city's summer learning program (Read to Succeed). She explained that she didn't have time to get Jordan to the Read to Succeed site and then take her other two children to daycare all before getting to her appointments at 9am. She expressed regret at having to make this trade-off since she felt that the daycare was "not really tending to his [Jordan's] activities or what not. They play and things like that but it's just like being watched at home cause it's a home daycare." Gabriella's participation in school and the workforce program will hopefully help her family to enjoy greater residential stability and improved living conditions in the future. Clearly, however, the time and stress associated with these activities made it impossible for her to enact promotive and preventative parenting strategies over the summer.

Like Gabriella, Monica's housing instability was related to her inability to institute the types of academic routines that she felt would support her daughter's summer learning. Monica, 23 during the summer of 2013, had dropped out of high school at the age of 15 to care for her oldest son. During the summer of 2013 she was taking classes to prepare for the GED and was committed to her four children's academic development and well aware of the risk of summer learning loss. However, she was not able to institute promotive and preventative parenting practices for her first grader, Kerry, because Kerry was not physically in her care during the summer that we spoke. Monica had recently become homeless; she and her four children had been staying with her father but were asked to leave so that her father would not jeopardize his subsidized housing by having people staying with him who were not on his lease. She decided to keep her eight and five year old sons with her in the shelter, but sent Kerry, and her five-year-old sister

to live with their father in another section of Baltimore City. She said that she still had legal custody of her daughters and would be taking them back as soon as she found permanent housing. When I asked what her daughters were doing this summer, she said that she wasn't sure how they spent the day but was concerned that their father did not do many activities with them. Monica's two sons were involved in summer programming. her oldest was attending summer school and her youngest was attending the summer program associated early Head Start. Monica was concerned that Kerry's father had not sent her to a summer program: "I'm having my concerns about that [summer learning loss] since my two daughters are not in summer school and their older brother in summer school, he's going to be in a higher reading than them and they're going to be less." Of course, I have no way of knowing if Kerry would have been better off in Monica's care over the summer. It is clear, however, that Monica's housing instability hindered her capacity to support Kerry's summer learning in the way that she would have liked.

While this study was not about family or residential instability per se, many of the families were in the midst of changes that were shaking up where they lived and with whom they were living. Prior research has found that these changes are stressful for parents and sometimes impact the academic and social development of children (Cavanagh 2008; Cavanagh & Huston 2006; Cooper, Osborne, Beck & McLanahan, 2011; Fomby & Cherlin 2007; Hao & Xie 2002; Wu & Martinson 1993; Wu 1996). The fact that five of the seven *aspiring summer teacher* parents in this sample were also contending with family and residential instability while none of the four *summer teacher* parents reported these types of changes suggests that instabilities and their associated hardships play a role in low-income parent's capacity to enact promotive and preventive

parenting strategies. Furthermore, the uncertainty and change that characterized the lives of many of the families that I spoke with sheds light on one of the ways that schools may serve as compensatory institutions during the school-year. The disruption in routines and relationships caused by residential and family instability is likely to affect children all year-round. However, when children are in school, they are buffered from some of the stresses that these changes cause in their household if for no other reason than they are taken out of the household environment for a good part of their day. For this reason, access to high quality summer learning programs may be particularly important for children who are in the midst of residential and family change. Paradoxically however, as will be discussed in Chapter Six, at least in this sample, a family's experience of residential and family changes often made them less likely to enroll their first grader in a summer learning program.

"Summertime is like I said, it's like the kids' break:" *Hands-off* summertime parents. Although they were often not very successful in enacting promotive and preventive parenting strategies, *aspiring summer teacher* parents knew about the importance of summer learning and felt a sense of responsibility for facilitating their children's academic and social development over the summer. Given the documented link between parental expectations and children's achievement trajectories (Entwisle et al., 1997), it is possible that even though *aspiring summer teacher* parents were not able to enact promotive and preventive parenting strategies, their values and attitudes had a positive effect on their children's summer learning. While a promotive values system was common in this analytic subsample of parents whose first graders were not enrolled in a summer learning program, there were a handful of parents (n=3) who did not believe in

the idea of summer learning loss or did not take responsibly for their children's academic development over the summer. Notably, these parents also took a very *hands-off* approach to their children's care over the summer. They did not have clear routines over the summer, did not or very rarely required that their children engage in academic activities, and often allowed their children to spend time in unstructured and unsupervised activities.

Whereas *summer teacher* and *aspiring summer teacher* parents were concerned about the issue of summer learning loss and felt that parents had an important role to play in preventing it, *hands-off* parents had a different perspective. Dana said that she didn't think it was true that children lose ground over the summer since she thought that her son always seemed to have "picked up on what he needed to know" over the summer. Like Dana, Leah and Melissa were also not concerned about summer learning loss. They both indicated that if children lose ground over the summer, it is likely attributable to something about the schoolwork or the teachers. Melissa speculated that it only seems like kids lose ground over the summer because the work gets harder in the next grade. Leah felt that if children lose ground over the summer, it is either because the teacher from the year before did not do a good job or because the teacher in the new grade was out-of-touch with her students. She explained:

> You somebody's teacher, and you taught them well, it's no type of way that they should lose the skills that you taught them, unless you didn't teach it to them right. So I don't know why they [teachers] would sit there and say, "Well, they lose skills because…" Some kids experience stuff over the summer. Like all the shooting, all this drama… they don't know what's going on inside they homes.

> You don't know. So, I mean, just because they been around a lot don't mean that they lost what's up here. So for a teacher to sit there and say, "Well, they lose skills and all that." No, they didn't. They just don't want to tell you. That's all. They just don't feel like hearing your mouth. They don't feel like it, but I don't think… whatever somebody teaches a child, they don't lose it.

Promotive parenting. Even though *aspiring summer teacher* parents were not able to consistently enact promotive parenting strategies, they did think summer academic work, particularly summer reading, was important. *Hands-off* parents did not express concern with summer academic work and did not encourage their children to spend time reading. In fact, Melissa felt that it was important for daughter, Jasmine, to get a break from academic work during the summer: "summertime is, like I said, it's like the kids break where they're supposed to enjoy it." Melissa said that she might encourage Jasmine to read a week or two before school started up again, but was mostly focused on ensuring that her daughter had fun over the summer and was not particularly concerned about academics:

> I feel that, as far as, like, you know what I'm saying, they went to school all year and whatever to me, summertime is, like I said, it's like the kids' break where they're supposed to enjoy it, where they can't be bored and they do stuff they want to do; whether it's swimming or, you know, riding a bike, birthday parties, you know, going away and all the fun that like skating, all the fun that basically comes with it. I guess it's something that kids earn or whatever.

Similar to Melissa, Dana was also not concerned about her son, Frank, reading over the summer. When asked how often her Frank was reading over the summer, Dana made clear that it was up to Frank to decide when and what to read. She said that he reads something if he wants to. When asked about the last time she saw Frank reading, Dana said she noticed him reading words that appeared on the television.

Hands-off parents' attitudes toward their children's summer learning generally reflected their approach to their children's school-year learning as well. Just as she did not involve herself in Frank's academic work over the summer, Dana was also not very engaged in his academic development during the school-year. She said Frank did most of his homework during the school-year on his own and usually put himself to bed around nine o'clock: "Long as he in the bed, like, I don't make him, but I can't make him go to sleep." Just like Dana, Leah was not very involved in her daughter, Kianna's learning during the school-year. Leah said that she asked her father to help Kianna with her homework and was annoyed that the teachers would always call home to talk about her daughter's academic difficulties since Leah thought addressing those difficulties was the teacher's responsibility: "Don't keep running to me or running to people, talking about, 'Well, Kianna don't know this. Kianna don't know that.' Then teach her. You're the teacher. That's what your job is to do." Notably, both Frank and Kianna were being held back in first grade because of they were behind academically.[25]

[25] Melissa differed from Leah and Dana in that she was significantly more involved in Jasmine's school-year academic work during the 2012-2013 school-year than she was over the summer. During the 2012-2013 school year, Jasmine was doing first grade for a second time because of her difficulties with reading. As a result, Melissa said that Jasmine's teachers showed Melissa how to help Jasmine with her reading at home (they gave Melissa books to read at home with Jasmine and required that she do a home reading log with Jasmine) so that her second time in first grade could be more successful. The difference between Melissa's approach to academic-year and summertime parenting suggest that summertime parenting styles are not always reflective of academic-year parenting. Additionally, the shift in Melissa's approach to her

For the most part, the children of *hands-off* parents dictated their own schedules over the summer. When asked to describe Jasmine's typical routine over the summer, Melissa said: "Jasmine really don't have a schedule because I feel like it's summertime it's like their schedule you know." Just like Melissa, Leah did not institute routines in her home over the summer. When asked to describe her daughter, Kianna's, typical day over the summer, she replied: "In the house….Every day in the house, it's no difference. It's no difference. It's like the same routine. She get up. She makes something to eat. She watches TV." There was no set bedtime in the summer at Leah's house. In talking about bedtimes Leah said that her daughter would sometimes stay up until the early morning and then sleep until mid-day.

As has been noted in prior research on parenting, allowing children to engage in unstructured play is not necessarily a bad thing. For example, in her cross-class comparison of family management strategies, Lareau (2003) noted that children of working class parents were more likely to be given the freedom to entertain themselves and, as a result, were more independent in their play and more capable of taking care of themselves. One difference between *aspiring summer teachers* and *hands-off* parents was that even though *aspiring summer teachers* did not engage in the types of promotive parenting strategies characteristic of *summer teachers*, they often encouraged their children to use their time on academic pursuits. This is in sharp contrast to the *hands-off* parents, who did not encourage academics and seemed to allow their children's desires to determine their schedules.

---

daughter's academic-year learning demonstrates that parent's attitudes and approach to their child's learning can change.

Preventative strategies. Because of their disadvantaged family and neighborhood environments, the children in this study were likely to encounter risks at home and in their neighborhood if their parent was not able to institute preventative parenting strategies that limited a child's exposure to such dangers. Leah and Melisa's daughters were both exposed to emotional and physical risks over the summer that might have been prevented had their parent intentionally tried to shield them from this exposure or if they had been enrolled in a summer learning program that took them out of their home environments for most of the day. Spending most of her time with family meant that Melissa's daughter, Jasmine, got to do a lot of fun activities over the summer and dictate her own schedule; however, it also meant that she was vulnerable to the fallout of challenging family dynamics. Melissa said that her uncle was murdered in early July and that the entire family was still grieving from the loss. Since Jasmine spent most days in the house with family [Melissa lived with her mother and sister], she was understandably affected by the adults around her. Melissa said: "I feel like it [the murder of her uncle] was a little bit sad for her because I guess from me crying; Jasmine didn't really cry, but my momma said children can feel your pain, but she was like a little bit sad and upset, you could tell. But she was just laying around and just like down a little bit." Leah reported that Kianna's physical safety was threatened because of an ongoing conflict that Leah was having with other women in the neighborhood. The most recent altercation involved a group of other women throwing a brick through her window when Kianna was home with her grandfather: "They made me so mad because everybody knows this is where my daughter be at in the living room. So if my daughter was sitting right, and you all threw that brick at… I was so mad."

Conclusion

Summary

This chapter describes how a sample of low-income parents of first grade students who attended elementary school in a high-poverty neighborhood managed the resources and risks present in their family and neighborhood environments to create their children's summer learning experiences. Because all of the children in this analysis were not enrolled in a summer learning program and all of the families were contending with high-poverty neighborhood contexts and managing with limited financial resources, the differences between children's summertime experiences can largely be attributed to heterogeneity in parents' family management style. The analysis reveals important differences between families in summertime parenting strategies, which influenced children's exposure to learning resources and neighborhood risks over the summer.

I find that some families (n=4) were able to create a "camp-like" experience within their own homes despite having very limited financial and neighborhood resources. These children received academic instruction over the summer and engaged in enrichment activities. Their *summer teacher* parents' family management strategies, which included adherence to routine and tight supervision, also seemed to offer a certain degree of protection from children being negatively influenced by their high-poverty high-crime neighborhood contexts. Many families in the sample (n=7) very much wanted to promote their children's academic interests and prevent their children from being exposed to risk, but were unable to consistently enact promotive and preventive parenting strategies. As a result, the children of these *aspiring summer teachers* did not consistently engage in academic activities and were likely vulnerable to risk. Although only a small

minority, it is important to note that there was a group of parents in my sample (n=3) who did not agree with the notion of summer learning loss and did not take personal responsibility for their children's learning over the summer. These parents tended to be very "hands off" about their children's care over the summer and reported that their children never or only rarely engaged in parent-initiated academic activities and that they their children spent much of their day in unsupervised or unstructured play.

Discussion: Implications for Research and Policy

My finding that pro-summer learning attitudes and high academic expectations were fairly common in my sample (exhibited by *summer teacher* and *aspiring summer teacher* parents), but that consistent promotive and preventive parenting strategies were relatively rare (exhibited only by *summer teacher* parents) underscores what has been found in past research on social class differences in children's out-of-school time learning opportunities. In poor and working class households, parents' attitudes towards out-of-school time activities do not always align with their children's out-of-school time learning experiences (Bennett et al., 2012; Chin& Phillips, 2004).

Prior research has highlighted the role that limited financial resources play in explaining the differences between social classes in children's access to enriching summer learning experiences (Chin & Phillips, 2004). My data suggest that non-monetary constraints (in particular, residential and family instability), often associated with limited financial resources, also hinder a parent's capacity to support their child's academic and social development over the summer. This finding is consistent with the research documenting a negative association between instabilities, parental stress, and child outcomes (Cooper, Osborne, Beck, & McLanahan, 2011; Fomby & Cherlin, 2007;

Osborne & McLanahan, 2007). Additionally, it is consistent with emerging research from the field of behavioral economics and psychology on the ways in which scarcity impacts behavior (Mullainathan & Shafir, 2013). When time and money are scarce, as they so often are during periods of residential and family changes, individuals are not able to perform at their full capacity. Mullainathan and Shafir (2013) refer to the effects of scarcity on behavior on a "bandwidth tax;" they demonstrate that the same individual functions at a much lower capacity when he or she has scarce resources.

Sudden hardships, like housing instability and the time/money scarcity that they cause, are just as likely to occur during the school-year as they are during the summer months. However, these hardships are probably more likely to have an effect on academic development over the summer than during school-year because children have increased exposure to their family and neighborhood contexts during the summer. Additionally, during the school-year, children have access to adults and activities at school that may buffer the negative influence of stressful family events like residential or family instability (Fomby, Mollborn &, Sennott., 2010). In their analysis of the seasonal pattern of inequality in the ECLS-K data, Downey and colleagues (2004) note that more than 90% of the variation in children's summer learning is not explained by family background and demographics (race, gender and SES). My findings on the influence that instability has on parenting practices over the summer suggests that some of the unexplained variation between children who share the same background characteristics may be related to the level of instability that they experience over the summer. Future studies should consider whether and how instability influences children's summer learning.

I identified a small sample of parents who disagreed with the notion of summer learning, did not feel responsible for fostering their children's academic development over the summer, and were *hands-off* in their children's care during the summer months. This finding suggests that our efforts to explain class differences in the seasonal pattern of achievement have potentially prevented us from viewing important differences within social classes (cf. Slates et al., 2010). As past research has noted, it is unlikely that differences in values and attitudes (cultural capital) explain the social class gaps in children's summer learning experiences (Chin & Phillips, 2004). However, the attitudes of the three *hands-off* parents in my sample make clear that parental values and attitudes probably influence the summer learning experiences of *some* low-income children. Middle class children living in well-resourced communities will likely be able to stay safe and may even be able to access neighborhood resources that will enrich their summer learning experiences even if their parents have a *hands-off* attitude toward their academic development. However, low-income children living in high-crime and low-resource communities will have a harder time staying safe and accessing enriching opportunities if their parent does not takes issues of summer learning loss seriously and take personal responsibility for their summer learning. In this way, parents having pro-academic attitudes and expectations are a necessary precondition for low-income children being engaged in safe and academically enriching activities over the summer. Future studies should investigate the causes and consequences of parents' divergent attitudes toward summer learning and the different levels of responsibility that they feel for how much or how little their children learn over the summer.

It is estimated that 73% of low-income school-age children in America do not participate in summer learning activities (Afterschool Alliance, 2010). In recent years, federal and local policymakers have made increasing children's access to summer learning opportunities a priority (Fairchild, Smink & Steward, 2009; NSLA, 2010). While these efforts may increase the percentage of low-income school-age children who participate in summer learning activities, it will likely continue to be the case that, for the majority of low-income elementary school children, whether and what they learn over the summer will be contingent on the resources and risks in their family and neighborhood environments. Therefore, in addition to efforts to provide low-income families with the opportunity to participate in classroom or camp-based summer learning opportunities, policymakers and practitioners should also consider ways to replicate the home environments of the *summer teacher* parents in this analytic subsample.

The *summer teacher* parents in this study all had access to educational materials for their children to engage with over the summer (they had used the library and personal or extended family resources to get these materials). Access to educational materials is a necessary precondition for parents to facilitate their children's academic development when school is not in session. In recent years, a number of programs have attempted to increase low-income children's access to print materials over the summer by providing children with appropriately leveled books to take home over the summer. Evaluations of these programs demonstrate that, on average, they have a positive effect on the summer learning of low-income students (see for review Kim & Quinn, 2013) and are particularly effective when they include some teacher and parent scaffolding (Kim & White, 2008). Researchers have noted that these types of home interventions are a very cost-effective

ways of improving the summer learning of low-income students (Allington et al., 2010). My data suggest that as we consider efforts to scale-up these programs, we will need to think creatively about the supports the most disadvantaged families might need to ensure that their children are reading the distributed books each day and are engaging in the parent-directed comprehension activities that are associated with the most effective programs. For example, one can imagine that the *aspiring summer teacher* parents in the analytic subsample sample would love to be part of a book distribution program but that their complicated child care arrangements, busy work schedules, and/or residential instability might make it challenging for them to institute routines around reading for their children or to find the time and energy to scaffold their children's engagement with the books. *Hands-off* parents, who did not feel a sense of urgency about summer learning, might require a totally different type of intervention that attempts to change their beliefs about summer learning and approach to parenting more broadly.

Designing programs and policies to curb the summer learning losses of low-income elementary school children is typically left to public agencies, philanthropic organizations, and non-profit service providers that focus on educational issues. My research demonstrates, however, that parental unemployment and mental health, housing and family instability, and neighborhood violence seriously influence low-income children's exposure to resources and risks over the summer. These stressors associated with poverty probably affect children's learning experiences year-round, but their effects seem most pernicious over the summer, when most low-income children do not have access to the compensatory context of the school. It seems likely that policies and programs that aim to improve the conditions of high-poverty neighborhoods and those

that try to help individual families experience social mobility by moving them to high-opportunity areas would have a positive effect on children's summer learning experiences. To date, the effects of these types of interventions on the academic outcomes of low-income students have largely been disappointing (Johnson, 2012). Notably, however, all evaluations of mobility programs have used measures of academic achievement that conflate school-year and summer-learning. It is possible that the school-year learning gains of children enrolled in a social mobility program are not positively affected by mobility because the children don't change schools when their families move (DeLuca & Rosenblatt, 2010) and/or because the children face unique challenges in their new school contexts. Future evaluations of housing mobility programs should consider how a move to a lower-poverty neighborhood influences the non-school learning experiences of children, which is best captured by measures of summer learning.

CHAPTER FIVE
WHAT DOES IT TAKE TO CURB SUMMER LEARNING LOSS AMONG LOW-INCOME URBAN ELEMENETARY SCHOOL STUDENTS?

Chapter Four described how a sample of low-income parents of first grade students who attended elementary school in a high-poverty neighborhood managed the resources and risks present in their family and neighborhood environments to create their children's summer learning experiences. Although most parents wanted to promote their children's learning over the summer, only four of the 14 parents whose first graders were not enrolled in formal summer learning programs indicated that they routinely provided children with summer learning resources (materials and interactions) in their homes and also that they consistently made efforts to prevent their children from being exposed to risks in the neighborhood over the summer. The objective of the analyses reported on in this chapter is to investigate whether schools can compensate for disadvantaged family and neighborhood environments by identifying the effects of academic and non-academic summer school resources. To achieve this objective I investigated the effects of enrollment in a half-day summer program (Read to Succeed) that offered academic resources only and a full-day program (Read to Succeed-Plus!) that featured the same academic resources as the half-day program, but offered enrollees an afternoon of non-academic summer school resources as well.

This chapter begins with a description of the full analytic sample. This descriptive analysis provides a broader context for this study; the students in this sample are precisely the types of students that prior research on summer learning loss has demonstrated are most at-risk for falling behind over the summer months (Burkam et al., 2004; Downey et al., 2004). Next, I describe the findings from an exploratory analysis of

the seasonal pattern of achievement in this sample. As will be shown, this analysis suggests that during the summer of 2011, which is the summer before the intervention under-study, the sample experienced summer learning loss. These losses were particularly acute for the most disadvantaged members of the sample.

After describing the demographic characteristics and achievement trajectories of the students included in this analysis and of the schools attended by the sample, I describe the differences between the three program groups under investigation (students who did not enroll, those who enrolled in the half-day program, and those who enrolled in the full-day program). This descriptive analysis is intended to motivate the use of propensity score matching methods as it demonstrates that there were systematic pre-program differences between the three groups under study. Next, I proceed with a description of the propensity score matching routine and report on the balance achieved through the selected routine. Finally, I report the treatment effect estimates derived from the outcome analysis implemented on the matched samples.

Descriptive Analysis

Demographic Characteristics of Analytic Sample

The analytic sample included all general education students in grades one and two who attended a neighborhood (non-charter) school that used Wireless Generation in 2011-2012 and continued in the City Schools' school system in the 2012-2013 school-year. As discussed in Chapter 3, students who were retained in their grade in 2011-2012 and students with missing outcome data were dropped from the sample. Thus, the full

analytic sample consisted of 6,351 students in 90 schools. Table 5.1 shows basic descriptive statistics for the full analytic sample.

The vast majority of the analytic sample (89.71%) qualified for the Free and Reduced Priced Meal program (FARM) during the 2011-2012 academic year, which means that their family income was less than 185% of the federal poverty line. The sample is overwhelmingly African American (81.04%) and just under half of the sample is male (48.83%). Nearly three out of every 20 students in the analytic sample (14.94%) were chronically absent during the 2011-2012 school-year, which means that they were absent for more than one-ninth of the days that they were officially enrolled in the school system. For students who were enrolled for all 180 days in the school-year this means that they missed 20 or more days of school. Over half of the sample (58.07%) was identified in the winter of 2012 as reading below grade level on their middle-of-year DIBELS benchmark exam.

Given the high level of disadvantage among students in the sample, it is not surprising that during the 2011-2012 academic year, these students were clustered in schools that can also be considered disadvantaged across a number of dimensions. Table 5.2 presents descriptive statistics about the demographic composition of the 90 schools that the analytic sample attended and the characteristics of the neighborhoods in which these schools are located.

On average, the 90 schools in the sample served a student population that was predominantly low-income (90.46% low-income) and African American (84.15% African American). As discussed in Chapter Two, prior research has shown that neighborhood disadvantage is more consequential for a student's summer learning rate

than it is for their academic-year learning rate (Benson & Borman, 2010). Therefore, the disadvantage of the sample's neighborhoods is an important factor to consider when assessing their risk for summer learning loss. In 2010, 63% of Baltimore City residents were African American. On average, these schools were located in neighborhoods where 69.73% of residents were African American; over 25% of these schools were located in neighborhoods in which more than 95% of residents were African American. Citywide, violent crime rates were 15.6 per 1,000 residents in 2010. Among the 90 schools from which the student sample was drawn, the mean violent crime rate of the community statistical area (CSA) in which the school was located was 16.77 with over 25% of schools being located in a neighborhood where the violent crime rate exceeded 23.29.

Seasonal Pattern of Achievement in Analytic Sample

This study is motivated by the seasonal pattern of inequality that has been documented in local and nationally representative datasets (Alexander et al., 2007; Downey et al., 2004). Low-income and African American children tend to lose more reading skills over the summer months than their more advantaged peers. This body of research led me to speculate that my high-poverty and predominantly African American sample experienced significant summer learning loss during the summer before the intervention. However, I recognized that given the high-level of attention that the issue of summer learning loss has received in recent years (von Drehle, 2010) it was possible that the seasonal pattern of achievement in my study sample was different from the trajectories documented in Baltimore City during the 1980s (Entwisle et al., 1997 & Alexander et al., 2007) and in nationally representative datasets more recently (Downey

et al., 2004). I explored these possibilities by estimating academic-year and summer learning trajectories of students in the study sample during the summer and school year prior to the intervention under study (May 2011-May 2012).

All students in the full-study sample (n=6,351) were included in this analysis.[26] In the outcome analysis used to generate treatment effect estimates (described in subsequent sections of this chapter), the dependent variables was derived from the same DIBELS assessment—Oral Reading Fluency (ORF) exam administered in the Fall of 2012. For plotting the seasonality of learning, I relied on DIBELS data collected at earlier time points (AY 2010-2011) when the first graders in the study population were in kindergarten. Instead of the ORF exam, kindergarten students took the DIBELS Nonsense Word Fluency (NWF) exam, which is a standardized assessment in which students are presented with a list of nonsense words and given one minute to recognize as many correct letter sounds as they can.[27] Because students in first and second grade during the 2011-2012 school year took different tests, I present findings separately by grade. Hereafter students who were in first grade during the 2011-2012 school-year are referred to as Cohort 1 and those who were in second grade during the 2011-2012 school year are referred to as Cohort 2.

[26] The description of students' summer learning trajectories is considered exploratory because the use of DIBELS benchmark assessments to measure summer learning loss is not well-established (Patton & Reschly, 2013). It is possible that a decline in student DIBELS scores over the summer months (between the spring and fall assessments) may be due to the fact that certain DIBELS assessments become more difficult as a student progresses from one grade to the next. Notably however, since all children within the same grade take the same test as one another in the spring and the same test as one another in the fall, the DIBELS benchmark assessments are well-suited for exploring between-group differences in children's summer learning (i.e. systematic differences in children's summer learning by family background and/or program enrollment) and have been used for these purposes by other researchers (Helf et al. 2008; Zvoch, 2009; Zvoch & Stevens, 2012).

[27] Prior research has found that the predictive validity of DIBELS NWF for first graders is between .66 and .81 (Good et al., 2004). This means that a student's score on their NWF DIBELS exam is strongly correlated with their scores on other standardized measures of reading achievement taken at a later date.

Descriptive statistics. Table 5.3 reports the mean of each cohort's DIBELS score by season. Panel A provides the mean NWF score for Cohort 1 by season and Panel B shows the mean ORF score for Cohort 2 by season (four relevant assessments, three relevant spells between these). For both cohorts, the spring 2011 and fall 2011 assessments bracket the summer months. As reported in Table 5.3, in both cohorts, the mean DIBELS scores for Cohort 1 and Cohort 2 students tended to drop over the summer and increase over the course of the school-year. At the end of the kindergarten year, the average NWF score for Cohort 1 was 34.18, which means that, on average, Cohort 1 students correctly identified 34.18 letter sounds in a one minute reading assessment. Based on DIBELS recommended cut-points for determining a student's risk-level using their NWF score, 68% of Cohort 1 students were identified as performing on grade level for this assessment by the end of their kindergarten year. At the start of their 1stgrade year, the mean NWF score for Cohort 1 students had dropped to 31.09 and only 60% percent of students were identified as performing on grade-level on their NWF exam. The mean ORF score for Cohort 2 students was 54.79 in spring of their first grade year and 53.32 by the fall of their 2nd grade year. While the mean scale score did not drop significantly for this cohort over the summer months, the fact that it did not improve suggests that on average, these students were not immersed in environments over the summer that facilitated their growth in oral reading fluency. Notably, during the first season of 2011-2012 school-year, Cohort 1 and Cohort 2 students experienced rapid growth. For both cohorts, the mean score increased by over twenty points between the fall and winter assessments.

One of the most robust findings from the research on the seasonal pattern of inequality is that gaps between high and low SES students widen over the summer. Figure 5.1 plots the average DIBELS scores for each cohort by students' eligibility for the FARM program. These plots provide initial evidence that the seasonal pattern of inequality existed in this context. For both cohorts, gaps between student who qualified for the FARM program and those who did not qualify appear to have widened slightly over the summer (between spring 2011 and fall 2011).

Multilevel growth model: data and methods. The next task in this exploratory analysis was to see if what appears to be a confirmation of the seasonal pattern of inequality rises to the level of statistical significance. I used multilevel modeling strategies to estimate seasonal achievement trajectories and to investigate whether there was evidence of inequality in these trajectories between student groups (Raudenbush & Bryk, 2002). In both cohorts, students were tested four times between the spring of 2011 and spring of 2012 (spring of 2011, fall of 2011, winter of 2012, and spring of 2012). Because I was interested in comparing students' growth rates over the summer period to their growth rate over the academic year, I implemented a piecewise growth model that estimated separate parameters for the summer and academic periods (Alexander et al., 2001; Raudenbush & Bryk, 2002; Zvoch, 2009). Additionally, I included a quadratic term for the academic period to allow for non-linearity in the academic-year learning rates of students. To account for the clustering of multiple tests within students, I used a multilevel modeling approach and allowed for random variation between students in their initial level (score in spring of 2011), summer learning rate and academic-year learning rate. While it is true that students are nested within classrooms during the academic-year

and that there may have been dependence in the initial status and academic-year growth rates of students who attended the same schools, a three-level model was not implemented because students were not nested within schools during the summer and because many sample members switched schools and classrooms over the course of the study period. Because Cohort 1 and Cohort 2 students did not consistently take the same DIBELS assessments over this time period, models were estimated separately for each cohort.

I first estimated an unconditional model to determine the average trajectory of student achievement and to determine whether there was enough between-student variation in initial status and seasonal growth to warrant the inclusion of additional student-level covariates in the level-2 model. My final model includes child-level covariates that are used to explain between-student variation in students' initial status and growth. At level-1, the final model is:

$$Y_{ti} = \pi_{oi} + \pi_{1i}(summer\ period)_{ti} + \pi_{2i}(academic\ period)_{ti} + \pi_{3i}(academic\ period)_{ti}^{2} + e_{ti}$$

Where Y_{ti} is the DIBELS score at time t for child i. *summer period* is 0 in spring of 2011, and 1 in the fall of 2011, winter of 2012 and spring of 2012. *Academic period* is 0 in spring of 2011 and fall of 2011, 1 in winter of 2012, and 2 in spring of 2012.π_{oi} is the initial status of child *i* in spring of 2011. π_{1i} is the summer period learning rate of child i.π_{2i} is the academic period learning rate of child *i* at the start of the academic period (Fall of 2011) and π_{3i} is the rate of acceleration during the academic period.

The level-2 model accounts for differences between students that may influence their initial status, summer learning, and academic year learning. Additionally, the level-2

model allows for random between-student variation in their initial status, summer learning rate, and academic year learning rate. Although it is possible that there is significant between-student variation in the rate of acceleration in children's academic-year learning, the quadratic term is fixed at level-2 because there is insufficient information (only four testing occasions per subject) to reliably estimate a fourth random effect. The fully conditional level-2 model is:

$$\pi_{oi} = \beta_{00} + \beta_{01}(Middle\ /\ High\ Income)_i + \beta_{02}(Not\ African\ American)_i + \beta_{03}(Male)_i + r_{0i}$$

$$\pi_{1i} = \beta_{10} + \beta_{11}\ (Middle\ /\ High\ Income)_i + r_{1i}$$

$$\pi_{2i} = \beta_{2o} + \beta_{21}\ (Middle\ /\ High\ Income)_i + r_{2i}$$

$$\pi_{3i} = \beta_{3o} + \beta_{21}\ (Middle\ /\ High\ Income)_i,$$

Multilevel growth model: results. Table 5.4 presents the results of the unconditional model (model 1) and the fully conditional model (model 2). Panel A reports the estimates for Cohort 1 and panel B reports the estimates for Cohort 2.

The unconditional models for first and second grade students show that on average children in the sample were performing at grade level by spring of 2011. Cohort 1 students (first graders during the 2011-2012 school year) on average were able to recognize 33.32 letter sounds in one minute on the NWF exam at the end of kindergarten. DIBELS guidelines suggest that kindergarten students who score above a 25 on the end-of-year NWF exam are at a "low risk" for not achieving future reading benchmarks (Good & Kaminski, 2002) . Similarly, Cohort 2 students (second graders during the 2011-2012 school year) correctly identified an average of 53.14 words per minute on the ORF exam in the spring of 2011. Since DIBELS guidelines suggest that an ORF score above 40 at the end of first grade puts a student at a "low risk" of failing to achieve future literacy outcomes, this average score means that students in the sample tended to be

reading on grade level at the end of their first grade year (Good & Kaminski, 2002). However, in both cohorts, students tended to lose skills over the summer. When Cohort 1 students returned to school in the fall of first grade, they were typically identifying 2.54 fewer letter sounds than they were able to identify in the spring of their kindergarten year. When Cohort 2 students returned to school in the fall, they were typically identifying 0.37 fewer words per minute on a grade-level text than they were at the end of their first grade year.

For both cohorts, acquisition of new literacy skills appears to have happened quickly at the start of schooling. On average, Cohort 1 students improved their NWF score by 23.05 points in the fall of first grade (29.43-6.38) and Cohort 2 students improved their ORF score by 25.56 points in the fall of second grade (32.76-7.20). Notably however, in both cohorts, the rate of growth slowed significantly in the second half of the year as indicated by the negative and significant coefficient associated with the quadratic term that is included for the academic-period coefficient in the level-1 models. My data did not allow me to explore why the growth rate appears to have slowed during the second half of the year for both cohorts. We can speculate however that this decline in the growth rate could be attributable to the focus that some schools may have placed on the statewide standardized testing that happens for all elementary school grades in March (Plank & Condliffe, 2013). Alternatively, the slowing of the academic-year growth rate may be due to teachers and students experiencing fatigue during the second half of the school-year.

Examination of the variance components of the unconditional model estimated in both cohorts demonstrated that there was significant variation between students in their

initial status, summer learning, and academic year growth rates. Given prior research on the relationship between children's socioeconomic status and their seasonal achievement, I attempted to explain some of this variation through a conditional model that included cross-level interactions between a student's seasonal learning rates and his or her eligibility for the FARM program (a proxy for family income). In both cohorts, I found that children who were not FARM-eligible (middle/high income students) tended to maintain or improve their skills over the summer period whereas children who were eligible for the program tended to experience significant losses. These gaps in summer learning are demonstrated through the negative and significant coefficients associated with the summer period and the positive and significant cross-level interaction between the summer period and a child's family income. Controlling for all other child-level covariates (gender and race), during the summer between kindergarten and first grade a low-income Cohort 1 student tended to drop 2.98 in their NWF score whereas a middle/high income students tended to drop by only .25 points (-2.98 + 2.73). A low-income Cohort 2 student tended to drop by 1 full point on their ORF exam over the summer between first and second grade whereas a middle/high income student tended to improve their score by 1.92 points over the same time period (-1.01 + 2.93). Although these differences may not appear to be large, they are statistically significant. Furthermore, the fact that the pattern was consistent across two different cohorts transitioning between two different grades and taking two different literacy assessments is suggestive of what prior research has shown—seemingly small summer losses accumulate over the course of elementary school to significantly contribute to the well-

documented gaps in academic achievement between low and high SES high-school students (Alexander et al., 2007).

Figure 5.2 shows predicted achievement trajectories for two hypothetical male African American students—one who is low-income (qualified for FARM program) and one who is not. Clearly most of the gap in achievement is related to children's initial status (performance in spring of 2011). Although some of this difference may have been generated by differential and unobserved learning trajectories during the 2010-2011 school-year, prior research (Downey et al., 2004) suggests that these gaps existed at the start of schooling (fall of kindergarten) and are primarily attributable to inequalities in children's environments the existed before formal schooling begins. Notably, the high level of academic growth that happened during the first three months of school for low-income students demonstrates that, under the right conditions, these student are capable of learning a tremendous amount over a three month period.

The findings of this exploratory analysis suggest that if low-income students were given access to school resources over the summer and able to achieve at even half the rate that they typically do during the school year, achievement gaps could significantly narrow. Summer *could* be an excellent opportunity for low-income students to catch up to their more advantaged peers. The summer program that is evaluated in the proceeding analysis, Read to Succeed, represents an attempt to do just that. As discussed in Chapter Three, it was hypothesized that providing early elementary school students with schooling resources during the summer time would help them to catch up over the summer, or at the very least, would prevent them from falling further behind. Because students were offered two variants of this program (a half-day program of academic

resources only and a full-day program featuring those same academic resources plus an afternoon of enrichment and recreation activities), I was able to explore not just whether the provision of academic schooling resources over the summer can curb summer learning loss, but also the role of non-academic resources in achieving this objective.

Propensity Score Matching

As described in Chapter Two, Read to Succeed (half-day program) and Read to Succeed-Plus! (full-day program) were designed to curb summer learning loss among early elementary school students. The program developers intended to serve students most at-risk of experiencing summer learning loss by hosting the program in schools where a high percentage of students were not reading proficiently by third grade and by providing students reading below grade level with the first opportunity to enroll. Notably however, while the half and full-day programs intended to serve a specific type of student and encouraged certain students to enroll more than it did others, the program was voluntary and officially open to any student in grade K-3 who was attending a non-charter school during the 2011-2012 school-year. Because certain students were encouraged to attend more than others and because enrollment was voluntary, it is possible that certain types of students were more drawn to the programs than others. For example, we might imagine that families with limited economic and education resources were over-represented in the half- and full-day programs because those families were more likely to have children who attended one of the schools that hosted the program and were more like to have children who were reading below grade level. On the other hand, since the program was voluntary and parents had to make extra efforts to gather information about the program and register their students, we might imagine that the

children enrolled in the program were more likely than those who were not enrolled to be from families that have high levels of social and cultural capital. In this section, I describe the differences between students who enrolled in a program and students who did not enroll in any program and between students who enrolled in the two types of programs. This description motivates the use of propensity score matching because it reveals that there were pre-treatment differences between students that influenced their enrollment into the programs groups and that may also have influenced how much they learned over the summer of 2012.

Motivation for Propensity Score Matching: Differences by Program Group

I explore the factors associated with selection into summer programming by presenting descriptive statistics by program enrollment in Table 5.5. Students who enrolled in one of the two summer programs were more disadvantaged than those who did not enroll in terms of their socio-demographic characteristics and academic achievement. Students who enrolled in one of the two programs were more likely to be low-income (eligible for the FARM program) than those who did not enroll. Whereas 94.02% of students who enrolled could be considered low-income, 88.58% of students who did not enroll were low-income. African American students were also over-represented among students who enrolled in the program. Overall, 81.04% of the full analytic sample is African American, but 91.98% of the students who enrolled in the program are African American. On average, first and second grade students who enrolled in one of the two programs had lower scores on their spring standardized reading test (Stanford-10 reading). On average, first and second grade students who enrolled in the

program scored in the 49th national percentile in reading as compared to students who did not enroll who, on average, scored in the 55th percentile in reading.

Importantly, students who enrolled appear to have been more advantaged in terms of their family's level of involvement in the school system. Prior research has established that attendance rates in elementary schools reflect a family's commitment to schooling and their connectedness to the school organization (Anderson et al., 2004; Bryk et al, 2010; Klem & Connell, 2004 ;). It is also often correlated with a family's own socioeconomic status (Ready, 2010). Nine percent of students who enrolled in the program were chronically absent (missing more than 11% of total days on roll) in the 2011-2012 school year whereas 15.62% of students who did not enroll were chronically absent during the 2011-2012 school year. Students who enrolled were much more likely to have participated in the voluntary summer learning program offered during the summer of 2011 than students who did not enroll (37.76% vs. 19.03%). This substantial difference in the summer of 2011 summer program participation may reflect the fact that enrolled students were more likely to have been achieving at lower levels and thus more likely to have been recommended for summer programming during the summer of 2011. Importantly however, the summer 2011 program was officially open to all students (regardless of achievement level) and the difference in summer 2011 participation rates between enrolled and not enrolled students was much more substantial than was the difference in student achievement levels.

Although the program was open to all students who attended a non-charter school and free transportation was provided to students who lived outside of a host school's attendance zone, program developers were aware that parents would be more likely to

send their students to the voluntary program if the program was hosted at their child's school. For this reason, the developers tried to host the program in schools where the student population was most at-risk of summer learning loss. In the full analytic sample, 26.14% of students attended one of the 20 schools[28] that hosted a half- or full-day program, but 44.31% of students who enrolled in the program attended a host site school during the 2011-2012 school year demonstrating that students were more likely to enroll in the program if their school was hosting the program. Notably, as shown in Table 5.6, host site schools were more disadvantaged than non-host site schools in terms of their student demographics and the characteristics of their surrounding neighborhoods.

On average, the twenty schools that hosted a summer program had a student population that was 91.84% African American and 94.49% low-income. On average, the 70 schools represented in the analytic sample that did not host a program had a student population that was 81.95% African American and 89.31% low-income in 2011-2012. Schools that hosted a program also tended to be located in more disadvantaged neighborhoods. The average median household income of the neighborhood for schools that did not host a program was $3,419.43 higher than the average median household income of the neighborhood of schools that hosted a program. Similarly, the violent crime rate tended to be higher in the communities that hosted a program than it was in communities that did not host a program (19.16 per 1,000 residents vs. 16.08 per 1,000 residents). Schools that hosted a program were also located in more segregated areas of Baltimore City, in which, on average, 81% of residents were African American as

[28] As indicated in the description of the program, 21 schools hosted a program. However, one of the schools that hosted a program is not included in the analytic sample because they did not administer the DIBELS assessment in the fall of 2012. Eleven students from this school attended the summer program and were dropped from the sample because they had missing outcome data.

compared to the neighborhoods of schools that did not host a program in which, on average, 66% of residents were African American.

One of the primary goals of the quantitative analyses featured in this study was to identify the effect of non-academic resources by comparing the outcomes of students in the full-day program (academic and non-academic resources) to a matched comparison group in the half-day program (academic resources only). Since parents had to sign up for these programs, it is possible that students who selected the full-day program were different from students who selected the half-day program in ways that might also have influenced their summer learning. For example, it is possible that students who enrolled in the full-day program were from more advantaged families who knew that a full-day academic program would benefit their child and were not deterred by the $60 fee that was charged to full-day enrollees. Although the fee was waived if a parent made less than $1,300 a month, it is possible that some particularly disadvantaged families chose not to sign up for the full-day program because of the fee. Additionally, the full-day program filled up more quickly than the half-day program and so it is possible that parents of children who enrolled in the full-day program had greater access to knowledge about summer learning opportunities (a form of social capital) than those who enrolled in the half day program.

Table 5.7 compares the family background and achievement characteristics of students who enrolled in the half-day and full-day programs and demonstrates that there were some important differences between these two groups. Students in the half-day program were more disadvantaged than those in the full-day program in terms of their family income and academic achievement. Students who enrolled in the half-day program

tended to score lower on their standardized assessments. The average score on the Stanford-10 reading assessment among first and second grade students who enrolled in the half-day program was in the 46th national percentile whereas the average score among first and second grade students who enrolled in the full-day program was in the 51st national percentile. There was only a small difference between the two program groups in the percent of students who were chronically absent; 10.43% of students enrolled in the half-day program were chronically absent in 2011-2012 and 8.21% of students in the full-day program were chronically absent. Notably, students who enrolled in the half-day program were less likely to be African American than those who enrolled in the full-day program (87.83% vs. 96.19%). This substantial difference was likely driven by the fact that while all of the full-day programs were hosted in schools that, during the school-year, served student populations that were more than 86% African American, one of the host sites for the half-day program served a predominantly non-African American student population (86% non-African American) during the school year and another served a higher than average non-African American student population (20% non-African American).

Implementation of Propensity Score Matching Methods

The quantitative analysis in this dissertation is intended to identify the effect that academic and non-academic summer school resources have on student learning. As discussed in the previous section and shown in Tables 5.5 and 5.7, the substantial pre-treatment differences between students who did not enroll and those who enrolled in one of the two programs suggests that selection into these different summer learning opportunities was far from random. Certain types of students were more likely to enroll

in any program and it appears that the half and full-day program attracted different types of students as well. Since these differences may also have influenced how much or how little a child learned over the summer, a direct comparison of the outcomes of students in the three groups would not have yielded an unbiased estimate of the effect of academic and non-academic resources. As described in Chapter Three, propensity score matching methods allow me to address these concerns about selection bias before estimating treatment effects. The goal of the propensity score matching routine was to construct a no-intervention "control group" so similar to the treatment group on all potential confounders that their post-treatment outcomes can be considered a valid estimate of what the treatment group's outcomes would have been in the absence of treatment (the counterfactual condition).

Answering my research objectives required the construction of three different matched samples.

1. To identify the effect of academic resources, I conceived of the treatment group as students enrolled in the half-day program and needed to construct a control group from students who did not enroll in any program.
2. To identify the effect of academic and non-academic resources, I conceived of students who enrolled in the full-day program as the treatment group and needed to construct a control group from students who did not enroll in any program.
3. To identify the unique effect of non-academic resources, I conceived of students who enrolled in the full-day program as the treatment group and needed to construct a control group from students who enrolled in the half-day program.

I estimated students' propensity scores for each of the three sets of comparisons using the propensity score model described in detail in Chapter Three. My propensity score model included 25 variables including student demographic characteristics, multiple measures of student academic achievement and behavior, measures of family social and cultural capital, as well as characteristics of the student's school and the school's neighborhood. After estimating the propensity score, I used the propensity score to identify my matched comparison groups. Standard advice is that analysts not proceed with outcome analysis until standardized biases for all covariates in the matched data are less than .25 (Ho et al., 2007). Standardized biases are calculated by subtracting the control group's mean from the treatment group's mean and dividing by the standard deviation in the unmatched sample. This procedure is done before and after matching using the same standard deviation so that analysts can determine the extent to which matching improved balance between the treatment and control group. In the comparison between the full-day program's enrollees and those who did not enroll in either program and in the comparison between the half-day program's enrollees and those who did not enroll in any program, I found that 2:1 nearest neighbor matching led to standardized biases of less than .25 for all covariates.

As described in Chapter Three, nearest neighbor matching was not a suitable matching method for the comparison between the full-day program and the half-day program since, for that comparison, there was not a large pool of no-intervention students from which to match. As a result, I used the propensity score as a weight and compared the differences in the distribution of covariates in the treatment and control groups before and after weighting. After weighting the control group (half-day enrollees) to look like

the treatment group (full-day enrollees), the standardized biases measuring differences between the treatment and control group never exceeded 0.20. Figure 5.1 shows the standardized biases for each of the 25 covariates before and after the selected matching algorithm had been applied to the data. The left panel of the plots show the standardized mean difference between the treatment and unmatched control group for each of the covariates. The right panel of the plots shows the standardized mean difference between the treatment and matched comparison group on the covariates. These plots demonstrate that after matching all standardized biases were below the recommended level of .25 (Ho et al., 2007).

Treatment Effect Estimates

I investigated the effects of academic and non-academic summer school resources on student learning by estimating the effect of enrolling in the full-day and half-day programs on student learning outcomes (fall 2012 DIBELS score, Quarter One Math and ELA grades, and Quarter One school-year attendance). The estimates derived from the models predicting learning outcomes in the sample of full-day program enrollees and the matched comparison group of students who did not enroll in any program tells us the effect of enrolling in a program featuring academic *and* non-academic summer school resources. The estimates derived from the models predicting learning outcomes in the sample of half-day program enrollees and the matched comparison group of students who did not enroll in any program tells us the effect of enrolling in a program featuring academic summer school resources. Finally, the estimates derived from the models predicting learning outcomes in the sample of full-day program enrollees and the

weighted comparison group of students who enrolled in the half-day program sheds light on the unique effect of non-academic summer school resources.

Cognitive Skills: Reading Test Scores

The three panels of Table 5.8 show the estimated coefficients from bivariate and multivariate regression models that were estimated on the matched samples. In each model, the dependent variable is a student's fall 2012 DIBELS ORF score. Model 1 is a bivariate model that only includes a variable indicating if a student enrolled in the program. Model 2 includes student's grade level, demographic characteristics and spring 2012 DIBELS score. It is important to note that the matching routine implemented before the outcome analysis technically made covariate adjustment unnecessary since there were no significant differences between the treatment and matched control group in the observed covariates after matching. However, I chose to include particularly important covariates in the final regression models so that the results can be considered be "doubly robust" to slight model misspecification (Ho et al., 2007).

Effect of academic and non-academic resources. Panel A of Table 5.8 shows the results from the analysis conducted with those students who enrolled in the full-day program (academic and non-academic resources) and a matched control group who did not enroll in any program. These models answer the question: what is the effect of enrolling in a program of academic and non-academic summer school resources on student's reading development? Model one shows the unadjusted difference in fall 2012 ORF scores for students who enrolled in the full-day program and a matched control group of those who did not enroll in any program. On average, students who enrolled in

the full-day program were able to identify 6.22 ($p < .01$) more words in a grade-level text than students who did not enroll in any program. In the final model controlling for student gender, family income, race, grade level, and spring 2012 DIBELS test score, the coefficients dropped slightly in magnitude to 5.53 but remained significant ($p<.001$). When expressed as a standard deviation of the fall 2012 DIBELS ORF Score for 1st and 2nd graders in the unmatched full analytic sample (sd = 33.30), this coefficient translates to 0.17 suggesting that enrolling in the full-day program raised students Fall ORF test score by 0.17 standard deviations. Because students were matched exactly on their grade level, I was also able to explore heterogeneity in treatment effects by student grade level. In models not shown, I included an interaction term for students' grade level and enrollment in the full-day program. This interaction term was not significant suggesting that the effects of enrollment were the same for students in first and second grade.

Sensitivity analysis. After identifying a positive and significant treatment effect, I conducted a sensitivity analysis to identify the extent to which these results are sensitive to an unobserved confounder. As described in Chapter Three, I utilized Rosenbaum's primal approach to sensitivity analysis in which I explored the extent to which the unobserved confounder would have to increase the odds of receiving the treatment in order to make the treatment effect estimate statistically insignificant. The primal approach to sensitivity analysis can only be implemented after 1:1 nearest neighbor matching. As a result, I re-estimated the propensity score model and used a 1:1 nearest neighbor matching routine (See for example, Kirk & Sampson, 2013). Although the standardized biases in the covariates after 1:1 nearest neighbor matching were not as small as they were after 2:1 nearest neighbor matching, I was still able to achieve balance

on all covariates (there were no statistically significant differences in the covariates after matching). After 1:1 nearest-neighbor matching, the difference in the mean ORF scores for students who enrolled in the full-day program and the matched comparison group of students who did not enroll in any program was 5.77.

After identifying the treatment effect estimate using 1:1 nearest neighborhood matching, I implemented Rosenbaum's primal approach to sensitivity analysis using STATA's Rbounds program (DiPrete & Gangl, 2004). The first column of Table 5.9 provides the sensitivity parameter (Γ), which measures the extent to which an unobserved confounder may have influenced the odds of treatment (enrollment in the full-day program). For example, when I specified that Γ=1.5, I was assuming that because of an unobserved confounder, the odds of treatment were 1.5 times higher for the treatment group. The goal of the sensitivity analysis was to see how the significance and magnitude of the treatment effect changed as Γ increased (Keele, 2010).

Table 5.9 presents the results of the sensitivity analysis. The second column of the table (labeled p-critical) reveals that p-value of the treatment effect estimate as Γ increases. We see that at Γ= 1.15 the treatment effect estimate became only marginally significant (p= .073) and at Γ= 1.2 the treatment effect estimate became statically insignificant (p= .132). The significance of the treatment effect estimate presented in the first column was based on the Wilcoxon Rank sum statistic, whereas the point estimates in the third and fourth columns of Table 5.9 show the upper and lower bounds of the Hodges-Lehman point estimate of the treatment effect. The Wilcoxon Rank Sum statistic was derived by ranking the absolute value of the difference in outcomes between the treatment and control group and then summing the ranks of those pairs in which the

treated subject's outcome was greater than the control subject's outcome (Keele, 2010. This statistic was used along with a Z-distribution to assess the statistical significance of the treatment effect estimate. The Hodges-Lehman point estimate was based on the difference in the median of the outcome in the treatment and control group (Keele, 2010). When $\Gamma = 1$ (no hidden bias), the upper and lower bounds of the 95% confidence interval of the H-L point estimates was [5.5, 6]. As Γ increased, the bounds of this estimate became wider because our certainty necessarily decreased. Treatment effect estimates were found to be less sensitive according to the 95% confidence interval for the Hodges Lehman point estimate. At $\Gamma = 1.4$, the confidence interval for the Hodges-Lehman point estimate was [-0.5, 12]; thus, in the presence of an unobserved confounder that increased the odds of the treatment group receiving the treatment by 40%, it became possible that the treatment effect estimate was truly negative.

At first glance it seems that the results of the sensitivity analysis mean that the findings regarding the effect of the full-day program were highly sensitive to an unobserved confounder. It is important to remember, however, that the primal approach to sensitivity analysis is a "worst case scenario" in that it assumes that the unobserved confounder not only increased the odds of treatment by the specified amount, but was also perfectly correlated with the outcome (DiPrete & Gangl, 2004). In the case of this study, we would need to assume that an unobserved confounder increased the odds of enrolling in the full-day program by 40% *and* was perfectly correlated with how much a child learned over the summer.[29]

[29] Notably, in the unmatched sample, only four of the observed covariates (being African American, having attended a host site school, having attended summer school during the summer of 2011, and having been chronically absent during the 2011-2012 school-year) impacted the odds of enrolling in the full-day

Rosenbaum (2002) recommended that when interpreting sensitivity analyses, analysts look to the results of past research to assess how likely it is that there is an unobserved confounder that could have increased the odds of treatment by Γ and be perfectly correlated with the outcome. As discussed in Chapter Two, Borman and colleagues (2005) used random assignment to evaluate a Baltimore City summer learning program that was offered to low-income Baltimore City elementary school children at high-poverty elementary schools. In addition to evaluating the effects of the program, Borman and colleagues considered the influence that a number of family characteristics that are unobserved in my dataset had on their sample's summer learning and program participation. Through a telephone survey, they created measures of parental psychological resources (parent's expectations), how active parents were in supporting their student's summer learning, family structure, church involvement, and parental socioeconomic status (a composite of parent's educational level, occupational prestige and eligibility for the FARM program). The fact that this study was considering summer program participation and summer learning in the same city as I was and among a similar student population (rising first and second graders in a sample of high-poverty Baltimore City elementary schools) makes it an ideal study against which to assess the sensitivity of my results. Importantly these authors found that church participation, parent's taking children to cultural events over the summer, family SES and the number of children in the household all predicted the number of weeks that a child randomized into the treatment group (offered a spot in the program) would actually attend the program. These results suggest that there may very well have been some unobserved differences between

---

program by more than 40%. Of these covariates, only one (being African American) was significantly related to student's fall 2012 ORF score (controlling for their spring 2012 ORF score).

my treatment group and control group in terms of their family's socioeconomic status, level of social capital and psychological resources. Importantly however, Borman and colleagues (2005) found that these variables *did not* explain differences in their sample's rates of summer learning. This finding suggests that even though there may have been important unobserved variables that influenced selection into the full-day program, those factors were far from perfect correlates of summer learning.

Effect of academic resources. Panel B of Table 5.8 shows the results from the analysis comparing those students who enrolled in the half-day program (academic resources only) and a matched control group of students who did not enroll in any program. These models address the question: What is the effect of enrolling in a program of academic summer school resources on student's reading test scores? Although the coefficients associated with enrollment in the half-day program were positive, they were not statistically significant. These findings suggest that enrollment in a half-day program of academic summer school resources did not have a significant impact on the reading test scores of students who enrolled.

Notably the full-day and the half-day program were offering the same academic resources in the morning. Thus, these findings are the first suggestion that academic programming alone is not sufficient to curb summer learning loss. However, since there were some differences between those who enrolled in the full-day and half-day program, it is possible that the types of children who enrolled in the full-day program would have done equally as well if they had enrolled in a half-day program instead. For example, if the children in the full-day program were from more advantaged families who were better

equipped to support students' non-cognitive development on their own than the half-day program may have been effective for those students.

Effect of non-academic resources. To know whether it was the academic or non-academic resources that really made a difference for those who enrolled in the full-day program, I needed to compare the performance of children enrolled in the full-day program (academic and non-academic resources) to a comparable group of children who enrolled in the half-day program (academic resources only). This comparison allowed me to estimate the counterfactual condition—how much students who enrolled in a full-day program of academic and non-academic resources would have learned if they had enrolled in a half-day program that offered academic resources only. Evidence that non-academic resources made a difference will be suggested if students who enrolled in the full-day program performed at higher level than the weighted control group of students' who enrolled in the half-day program. Panel C shows the results from the analysis conducted on the weighted sample of students who enrolled in either the full-day or half-day program. As described in the previous section, a student's propensity to enroll in the full-day program was used to weight the sample of students in the half-day program to look like the sample of students in the full-day program. Students enrolled in the half-day program who were very similar (in terms of their pre-treatment covariates) to those enrolled in the full-day program were "weighted up" and those who were very different contributed very little information. In the final model, the effects of the full-day program were estimated to be positive ($b=4.27$) and statistically significant ($p<.01$). When expressed as a standard deviation of the fall 2012 DIBELS ORF Score for first and second graders in the un-matched full analytic sample ($sd = 33.30$), this coefficient

translates to an effect size of 0.13 suggesting that the non-academic resources offered in the full-day program boosted students' reading test scores by 0.13 standard deviations. These results imply that the non-academic resources offered to students who enrolled in the full-day program played a major role in curbing summer learning loss among those students.

Sensitivity analysis. Because 1:1 nearest neighbor matching was not feasible for the comparison of the learning outcomes of students who enrolled in the full-day program and students who enrolled in the half-day program, it was not possible to use the primal approach to sensitivity analysis to address concerns that even after weighting the control group (half-day enrollees) to look like the treatment group (full-day enrollees) unobserved confounders were still biasing the estimates. Importantly however, we know that at least on observable characteristics the full-day enrollees were not very different from half-day enrollees even before the propensity score matching routine was implemented. As shown in Figure 5.3, even before weighting the half-day enrollees to look more like the full-day enrollees, there were only a handful of covariates for which the standardized mean difference between the full-day and half-day enrollees was greater than .25.

Still, it is possible that the same unobserved confounders that may have biased the treatment effect estimates generated by a comparison of the full-day enrollees to a matched group of students who did not enroll in any program were at-play in the analysis that compared full-day enrollees to a weighted control group of students who enrolled in the half-day program. For example, it may be that parents who enrolled their children in full-day program were more advantaged in terms of their socioeconomic status and

placed a greater value on summer learning than those who enrolled their children in the half-day program. Importantly however, Borman et al.'s (2005) analysis of the predictors of summer learning loss in a similar Baltimore City sample concluded that many of these considerations did not account for summer learning differences, which suggests that they would not do so in this sample either.

Non-Cognitive Skills: Grades and Attendance

As discussed in Chapter Four, it was hypothesized that enrolling in the full-day program would have an effect on children's non-cognitive skill development. However, in models not shown here, the effects of academic and non-academic resources on all three measures of non-cognitive skills were non-significant. Children who enrolled in the full-day were not more likely to have higher mathematics or reading grades and they did not have significantly better Quarter One attendance. Notably, these dependent variables were all measured three months into the school-year. Thus, it is possible that the effects of the program had faded by that point or were simply not strong enough to counteract the other school and non-school factors that influence students' grades and attendance rates.

Conclusion

Summary

The analyses featured in this chapter considered the effects of enrollment in academic and non-academic summer school resources in a sample of elementary school children highly vulnerable to summer learning loss. My findings demonstrate that the enrollment in a full-day summer learning program featuring academic and non-academic

resources had a positive effect on the reading skills of low-income elementary school students. Students who enrolled in the Read to Succeed-Plus! program had significantly higher reading test scores in the fall than did a matched comparison group of students who did not enroll in any City Schools' summer learning program. Students in the full-day program also had significantly higher reading test scores in the fall than did a weighted comparison group of students who enrolled in the half-day Read to Succeed program. It is important to remember that a student's spring 2012 DIBELS score and 2011 summer gain DIBELS score were among the 25 covariates used in the propensity score matching routines implemented before the outcome analysis. This means that before the summer of 2012 there were no significant differences between the treatment and matched comparison groups in their 2011 summer gain score or in their spring 2012 DIBELS scores. However, after the full-day program was implemented, significant differences emerged between those enrolled in the full-day program, those who did not enroll in any program, and those who enrolled in the half-day program.

The effect size (regression adjusted standardized mean difference) associated with the enrollment in a program featuring academic and non-academic resources (d=0.17) is consistent with the effect sizes reported in the two meta-analyses on summer learning (Cooper et al., 1996; Kim & Quinn, 2013). As discussed in Chapter Two, Kim and Quinn's (2013) meta-analysis found that found that the average effect size of elementary school summer reading programs was 0.10 for total reading achievement and found that the effect size for assessments that measure fluency and decoding (two skills assessed on the ORF assessment used in this study) was 0.24 (Kim & Quinn, 2013).

One way to interpret the substantive significance of the effect sizes estimated in this study is to compare them to policy-relevant gaps between socio-demographic groups in their DIBELS performance (Bloom, Hill, Black & Lipsey, 2008). In the full unmatched analytic sample (n=6,351), the gap between FARM-eligible and non-FARM eligible students in their fall 2012 ORF score was 26.33. To express this gap as an effect size, we divide this difference by the standard deviation in the full sample (sd=33.30), which yields an effect size of 0.79 (Bloom et al., 2008). Therefore, low-income students' enrollment in the full-day program could reduce the income achievement gap in the fall ORF scores by 21.52% ($(\frac{17}{.79}) \times 100$). It is important to note that the "treatment" in this study was conceived of as enrollment in the programs rather than program attendance. We can imagine that the effect sizes estimated in my analysis would be even larger if the treatment group was restricted to students who actually attended.[30] Additionally, the null findings regarding enrollment in the half-day programs may not apply if the analysis was restricted to those who actually attended the half-day program.

I predicted that enrollment in the half- and full-day programs had a positive effect on students' non-cognitive skills (Quarter One grades and attendance). I speculated that these effects would be strongest for those enrolled in the full-day program. I did not find support for this hypothesis. Students who enrolled in the full-day program did not have significantly different grades or school attendance than did a matched comparison group of students who did not enroll in any program nor did they have higher grades or attendance rates than a weighted comparison group of students who enrolled in the half-day program. Similarly, those who enrolled in the half-day program did not have higher

[30] I was not able to estimate the effects of attendance because summer program attendance data was not available.

fall grades or attendance than a matched comparison group of students who did not enroll in any program.

It is important to note that these findings do not necessarily mean that academic and non-academic summer school resources do not influence non-cognitive skill development. As discussed in Chapters Two and Three, my measures of non-cognitive skills are imperfect proxies for the developmental processes that were hypothesized to be affected by academic and non-academic summer school resources. For example, it was hypothesized that the provision of non-academic summer school resources would improve a child's attachment to school and engagement in the school system. It seems possible that effects on attachment to and engagement in schooling were not strong enough to influence a child's grades or attendance, but that a post-summer survey asking students, parents, and/or teachers about the student's feelings toward school and engagement in their work would have detected differences between the treatment and control group. This hypothesis is bolstered by the interviews I conducted during the summer of 2013 with parents of first grade students who enrolled in the 2013 Read to Succeed program. With only one exception, all of the parents in the qualitative sample of children who enrolled in Read to Succeed during the summer of 2013 (n=8) spoke positively about the program and indicated how much their first graders enjoyed the camp-like activities. In fact, when describing what her daughter was learning at the program, one parent mentioned the "social skills" that the program is trying to instill in children. An evaluation of the 2013 program was not an intention of the qualitative study and so the comments made my parents should be considered anecdotal. However, the opinions of the parents who participated in the qualitative study certainly suggest that the

2012 summer program may have influenced children's non-cognitive skills development in ways that are not captured by children's grades and attendance. Future evaluation of summer learning programs, should consider using more direct measures of non-cognitive skills.

Limitations

This analysis is not without its limitations. As discussed in detail in Chapter 3 and in the discussion of the sensitivity analysis featured in this chapter, the capacity for propensity score matching to yield unbiased treatment effect estimates relies upon the "strongly ignorable treatment assignment" assumption. This assumption states that given the observed covariates assignment to treatment is independent of potential outcomes (Rosenbaum & Rubin, 1983; Stuart, 2010). In my study, this assumption would be violated if there were unobserved variables that influenced selection of a summer program *and* how much a child who enrolled in one of the programs would have learned in the absence of the program. Of particular concern is the selection bias that may have been introduced by the fee associated with the full-day program. Although the $60 fee was waived if parents could demonstrate financial hardship, it is possible that students who enrolled in the full-day program were more economically advantaged than those who enrolled in the half-day or were better-informed about scholarship opportunities. My measure of family income is simply an indicator of whether a child's household's income was less than 185% the federal poverty line. Inclusion of a finer-grained measure of household economic resources in the propensity model would improve this study's internal validity. The sensitivity analysis revealed that the treatment effect estimates are

highly sensitive to unobserved confounders, which might include a variable like a finer-grained measure of family income or an indicator of parent's educational level.

Although it is important to acknowledge the potential for an unobserved confounder to have led to bias, there are a number of factors that bolster my confidence in the study's validity. While it seems likely that there are unobserved variables related to family socioeconomic status and social capital that influenced selection into the half- and full-day program, analyses of another summer program in Baltimore suggest that while many of these unobserved variables predict summer program attendance, they do not have a significant influence on summer learning (Borman et al., 2005). It is also important to remember that for unobserved confounders to invalidate a treatment effect estimate, the unobserved confounder needs to be unrelated to *observed* covariates (Stuart, 2010). Stuart (2010) explained:

> Matching on or controlling for the observed covariates also matches on or controls for the unobserved covariates, in so much as they are correlated with those that are observed. Thus, the only unobserved covariates of concern are those unrelated to the observed covariates (p. 7).

It seems unlikely that an unobserved variable like parental education or a continuous measure of family income would have influenced a child's selection into summer programming and his/her summer learning during the summer of 2012, but would not have influenced the child's summer learning during the summer of 2011 or academic achievement during the 2011-2012 school year (two variables that are included in the propensity score model).

Discussion: Implications for Policy and Research

It is often assumed that the content and quality of what is learned in school (the curriculum and pedagogy employed during academic instruction) are the primary vehicles through which students develop their cognitive skills. Students enrolled in the half- and full-day programs were offered the same academic instruction through the morning academic program. Why then, would enrollment in the full-day program have had a positive and significant effect on students' reading skills while enrollment in the half-day program have had no discernible effect? One possibility is that the non-academic features of the full-day program supported students' literacy development by improving their non-cognitive skills. This hypothesis is supported by Covay and Carbonaro's (2010) finding that extracurricular activity participation positively influenced elementary school student's academic achievement through its effect on non-cognitive skills. These authors theorized that extracurricular activities like sports teams, arts and dance classes support student academic achievement by offering them "places to practice and develop their non-cognitive skills, which are important for later learning and employment outcomes" (Covay & Carbonaro, 2010: p.41). It seems possible that the afternoon activities featured in the full-day program--which included enrichment lessons, field trips, and structured play—provided students who enrolled with these types of opportunities. Future studies and evaluations of programs like Read to Succeed-Plus! should consider using measures of non-cognitive skills to determine whether and how non-academic camp-like summer school resources affect students' non-cognitive skill development. One straightforward approach might be to use the "Approaches to Learning Social Rating Scale" that has been fielded with young children participating in the Early

Childhood Longitudinal Study in future evaluations of summer learning programs. This scale "taps into characteristics of the student's attentiveness, organization, flexibility, task persistence, learning independence, and eagerness to learn" (Covary & Carbonaro, 2010: pg. 25). Covay and Carbonaro (2010) found that extracurricular activity participation impacted children's scores on this scale and so it seems likely that this measure could also detect an effect of a summer learning program.

Another reason for the differences in the treatment effect estimates associated with the full- and half-day program may be related to time. It is possible that the neighborhood and home environments that the children in the half-day program went home to at lunchtime did not provide them the same opportunities to practice their literacy skills as the child-centered and camp-like environment that the children enrolled in the full-day program had the opportunity to be immersed in during the afternoon. Additionally, the qualitative results featured in Chapter Four regarding how low-income children spend time over the summer in the absence of summer programming suggests that those who did not enroll and those who enrolled in half-day program may have been exposed to significant stressors at home that could have had a negative effect on their academic development over the summer. In this way, by taking children out of their family and neighborhood environments for the full-day, the Read to Succeed-Plus! program created a greater treatment-control contrast than the half-day program did. Yet another possibility related to time is that the enrichment activities offered in the full-day program motivated students to show up every day and thereby increased their exposure to the academic curriculum featured during the morning. In this way, it might be that academic summer school resources are the mechanism through which students develop

reading skills over the summer, but that non-academic resources are the mechanism through which students choose to access voluntary academic summer school resources. Without qualitative data on the subjective experiences of enrollees in the 2012 program or data on the attendance of the program enrollees, I could not formally explore these mechanisms.

Future studies should consider *how* Read to Succeed-Plus! (or a program like it) promoted summer learning. Understanding the mechanisms behind this program's effect on cognitive skills is critical to the replication or scale-up of programs like Read to Succeed-Plus! Additionally, an implementation evaluation could also go a long way in helping to explain the null findings regarding the effect of the full-day program on the non-cognitive skills. As discussed, these null findings may be related to inadequate measures of non-cognitive skill development. However, it also possible, that afternoon program was not implemented as intended by developers. Direct observation of the program and interviews with program stakeholders (students, parents, and staff) would help to explain these null findings and might elucidate ways to improve program effectiveness in the future.

Even if we do not yet know why non-academic resources matter, the findings reported in this chapter demonstrate a full-day summer program featuring academic and non-academic summer school resources can help to curb summer learning loss among low-income urban elementary school students whose families choose to enroll them in the program. With so much emphasis on closing achievement gaps as measured by standardized assessments of students' cognitive skills, it is often difficult to justify spending public money or limited philanthropic dollars on non-academic resources.

However, the findings featured in this chapter suggest that investing in low-income children's non-cognitive skill development over the summer could go a long way in curbing summer learning loss and reducing educational inequality.

CHAPTER SIX
SELECTING SUMMER: HOW LOW-INCOME FAMILIES NAVIGATE CHOICE IN THE SUMMER

As reported in Chapter Five, enrollment in a voluntary full-day summer learning program featuring academic and non-academic resources had a positive effect on the summer learning of a predominantly low-income African American elementary school student sample; the findings suggest that expansion of the program could help to reduce inequalities between low- and high- income students. However since summer learning programs like the one featured in Chapter Five are often voluntary and open to all students, they have the potential to exacerbate educational inequalities if the most disadvantaged families do not choose to participate (Ceci & Papierno, 2005). We know very little about how families navigate their summer learning program choices to select into (or out of) summer learning opportunities on behalf of their children. This chapter investigates how low-income parents of first grade students attending elementary school in a high-poverty neighborhood made sense of the summer learning program choices available to their children and decided whether to enroll their children in a program.

As described in Chapter Two, the existing research investigating differences in children's summer learning experiences has focused on cross-class comparisons. There are significant differences between social classes in terms of children's participation in OST learning opportunities; analyses of nationally representative data show that more advantaged elementary school children are more likely to participate in extracurricular activities (including summer learning opportunities) than their less advantaged peers and that extracurricular activity participation influences students' development of cognitive and non-cognitive skills (Covay & Carbonaro, 2010). Ethnographic research seeking to

explain social class gaps in children's OST learning activities has found that the limited economic capital of working class and poor families makes it difficult for them to engage in the marketplace of OST learning opportunities in ways that might support their children's learning (Bennett et al., 2012; Chin & Phillips, 2004).

While it is clear that limited economic capital plays a significant role in the summer learning opportunity gap, the research on how low-income families engage in school choice policies suggest that cost is not the only constraint that they face in accessing opportunities on behalf of their children. For example, the research on school choice has demonstrated that low-income families often lack the information necessary to make informed decisions about where their children go to school and/or are not able to make choices that would optimize their children's academic experience because of challenges they face in regards to child care, transportation, neighborhood safety, and residential instability (Condliffe, Boyd & DeLuca, forthcoming; DeLuca & Rosenblatt, 2010; Rhodes & DeLuca, 2014). This body of research suggests that limited economic capital is not the only reason that poor families do not always select into summer learning opportunities. The goal of this chapter is to identify the process through which low-income parents contending with high-poverty neighborhood contexts decided whether to enroll their first graders in summer learning programs. Because Baltimore City offered free and reduced-cost voluntary summer learning opportunities for low-income elementary school children during the summer of 2013, investigating whether and how low-income families in Baltimore City enrolled their first graders in programs allowed me to go beyond issues of affordability to consider the structural and cultural factors that influenced this process.

This chapter begins with a description of the summer learning opportunities available to children in the full analytic sample (n=24) and what parents in this sample said that they wanted from a summer learning program.[31] Next, I describe the processes through which families who enrolled their first graders in summer learning programs (n=10) found out about programs and made the decision to enroll their children. I also explain why the families who did not enroll their first graders in summer learning programs (n=14) did not successfully engage in these selection processes. Finally, I discuss the implications that my findings have for the sociology for education research literature and for policymakers and practitioners interested in increasing low-income families' participation in voluntary summer learning programs and in programs of choice more broadly.

Context

Summer Program Marketplace: Summer Learning Opportunities in Baltimore City

During the summer of 2013 in Baltimore City general education students in non-charter schools were not mandated to attend a summer learning program. Unlike high school summer school programs, which are often tied to credit recovery and grade promotion, elementary school summer programs were not compulsory for students. As a result, a parent needed to decide whether to send their child to a program, and, if they wanted to sign up for a program, they needed to make a choice about which program to enroll in.

In 2012, with the support of the local philanthropic community, the Baltimore City Mayor's Office sought to expand children's access to summer learning opportunities through the initiation of the "Baltimore City Super Summer" initiative. This initiative (in

[31] Detail about the sampling strategy and data collection can be found in Chapter 3.

its second year during the summer of 2013) brought together various public agencies and local non-profits to expand access to summer learning opportunities and to ensure that all families were informed of the resources and programs available to them over the summer (Green, 2012). The summer learning opportunities most relevant to the families in my sample were the free and reduced cost programs serving elementary school students that either offered free transportation or were hosted at a site that was no more than two miles from one of the sampled schools. Table 6.1 details the three options that were most accessible to the families in my sample in terms of their cost, the intensity with which they were publicized by the school system, and their proximity to the sampled schools.

As described in detail in Chapter Three, Read to Succeed was the school system's summer learning program for children in grades K-3.[32] During the summer of 2013, the program was five weeks long and featured a morning of reading instruction and an afternoon of enrichment activities, field trips, and recreation. Springfield Elementary[33] (one of the two schools from which study participants were recruited) was one of the 18 schools serving as a host site for this program during the summer of 2013; Cedar Elementary School students enrolled in the program were provided free transportation from Cedar to Springfield. While Read to Succeed was eventually opened up to all students, those identified as reading below grade level on their Winter 2013 DIBELS assessment (54% of full qualitative sample) were targeted for enrollment and given the first opportunity to enroll. SuperKids camp had a very similar structure to Read to

[32] During the summer of 2012, there were two variants of Read to Succeed—a half-day program and a full-day program (Read to Succeed-Plus!). During the summer of 2013, all Read to succeed sites were full-day and were all called "Read to Succeed." The school system had one other summer learning program for children in grades K-3, but this program was targeted to students attending specific schools that were not in the sampling frame. Read to Succeed was hosted at 18 schools, but officially open to all students in grades K-3 at non-charter schools

[33] The names of the two elementary schools where sampled parents' students attended have been changed.

Succeed, but was open to all public school students in grades 1-3 from the first day of registration regardless of their reading level. SuperKids was advertised by the school system, but was run by a local non-profit organization. SuperKids camps were a week longer than the Read to Succeed program and had a $60 fee associated with enrollment. In all of its recruitment materials, SuperKids noted that scholarships were available to families who could demonstrate need. The Department of Recreation and Parks also offered summer camps for elementary school age children. These camps typically included an academic component and had a cost associated with them (NSLA, 2012). Of course, it is possible that families in my sample considered other programs offered by local non-profits, cultural institutions, churches, or other organizations. Notably, however, these other opportunities were not publicized on the Baltimore City Super Summer website and, even though all parents were asked about all the summer learning opportunities they had heard of, only a handful mentioned other programs by name.

Results

Market demand: What do parents want from summer programming?

One straightforward explanation for parents not accessing opportunities available to their children would be that what parents desired for a summer learning program did not match with what was available to them in the marketplace. I asked the 14 parents whose first grade students were not enrolled in a program to tell me what their children would be doing over the summer if money were no object. All but two of the 12 parents[34] who answered this question indicated that they wanted their children to do a program that included learning and fun activities. Notably, the blending of learning and fun was a

[34] Two parents of the fourteen parents who did not enroll their children in a summer learning program were not asked this question directly.

cornerstone of all three summer learning programs listed in Table 6.1. Tonea, whose two school-age daughters were not enrolled in a summer learning program, described the structure of Read to Succeed and SuperKids when discussing her ideal program. "It will always be between work and fun…You know, three hours working your brain then there's lunch time, let's go have a little fun to show off the good work you did." Beverly, whose son was not enrolled in a summer learning program, said that ideally her son would: "do something sporty that still helps him learn, like something like school. Like they learn two or three hours, then they go outside for the rest of the day like to burn off the energy." Although there was variation between parents in the detail with which they described their ideal program, the sentiment expressed in Tonea and Beverly's responses were typical among the parents who did not enroll their children in summer learning programs.

The process of selection: How do families select into (or out of) summer programming?

My finding that most parents wanted their children to be involved in a summer learning program, but that many (n=14) did not enroll their first grade students in a program during the summer of 2013, is consistent with prior research on the demand for summer learning programs. Through their analysis of a nationally representative survey of families with school age children, the Afterschool Alliance found that only 25% of school-age children attended a summer learning program in the summer of 2009, but that the majority of parents whose children did not attend a program (56%) would prefer that their children had access to one. They reported that the unmet demand for summer programming was greatest among low-income and minority parents. If low-income

parents generally want what is on-offer in the summer program marketplace, why are so many children not enrolled in a summer learning program? To answer this question, I investigated the process through which the low-income families in my sample decided whether to send their first grade students to summer learning programs. My analysis was guided by the following questions:

- How did families who enrolled their first graders in a summer learning program find out about summer programming and make decisions about which programs to send their children to?
- What information did parents of children who were not enrolled in a summer learning program have about summer learning programs?
- For those who had information about summer learning opportunities, but did not enroll their first grade students in a program, why did they decide not to send their children to a program?

Through my analysis, I discovered two processes through which parents successfully enrolled their first grade students in a summer learning program—consumer selection and brokered selection. A consumer selection process involved a parent proactively searching for information about summer learning opportunities that seemed like a good fit for his or her child and then managing the child's enrollment into this program. Two of the ten parents in my sample whose first graders were enrolled in a summer program engaged in a consumer selection process. Nine of the 14 parents who did not enroll their first grade students in a summer learning program attempted to act as consumers in the summer program marketplace, but faced constraints that made their searches unsuccessful. A brokered selection process entailed an individual or institution informing the parent of an

appropriate summer learning opportunity and facilitating the child's enrollment. Eight of the ten parents in my sample whose first grade students were enrolled in a summer program had their selection process brokered in some way. Notably, five of the 14 parents whose first graders were not enrolled in a summer learning program described efforts that brokers made to enroll their children in a program. In these five cases however, attempts at brokerage were unsuccessful because the message was inaccurate, incomplete, or rejected. In the paragraphs that follow, I describe these selection processes in more detail and discuss some reasons why parents ended up engaging in one type of selection process instead of another.

"**Best fit for her:" Consumer selection.** Policies and initiatives, like the Baltimore City's Super Summer initiative, which require families to make choices on behalf of their children, assume that if given information about accessible (in terms of proximity and cost) educational programs, parents will be able to act as "rational choice" consumers in a marketplace of educational opportunities (Henig, 1995). That is, parents will independently access and process information about summer programming and then select a program that meets their children's needs and interests. The key characteristic of a consumer selection process is that the consumption of information and selection of an appropriate program is directed by the parent who is motivated to find an opportunity for her child and knows the characteristics of a program that will be a good fit.

Two of the ten parents who successfully enrolled their first graders in a summer learning program described a successful consumer selection process. These parents initiated the search for a summer program on their own, found a program that seemed like a good fit, and successfully enrolled their children in the program. Rita is a 27 year-old

single mother of one child, named Dimitria, and is a good example of the idealized consumer searcher that is assumed by most choice policies. Rita said that her mother offered to babysit Dimitria over the summer while Rita was working, but Rita declined this offer because it was important to her that Dimitria be enrolled in a summer program. "But of course I would rather her be in some type of program where she's learning and they're still reinforcing her…they still have a classroom setting." In describing why a "classroom setting" in the summertime was important to her, Rita said:

> Because life is a learning experience…I need her to have certain [standards]. I can't express that enough her having standards. Is every day, it needs to be a routine. You need to have a routine. Just because it's summer does not mean you get to lay in the bed and do nothing. You still have to get up and you still have to go and you have to do this and you have to do the routine.

Dimitria had been bullied by her classmates during the school year and Rita wanted her to get "a whole change in atmosphere" over the summer so that Dimitria could make some new friends and realize that she didn't deserve to be treated the way her classmates had treated her.

Rita found out about SuperKids from the City Schools' website.

> I just went on the website and just looked for my own program for her from the website…They had different programs for different activities in different timeframes and things like that. So I picked the one that best suit [here]. I felt like would best fit her.

Rita not only acted as an idealized consumer by initiating a search herself, but also acted as an idealized consumer in her decision-making process about what program would

"best fit" her daughter. Perhaps because of the struggles Dimitria had faced in school, it was important to Rita that the program she selected was a good "fit" for her daughter in terms of the social environment (she wanted her away from the children at her school) and the activities on offer. Dimitria enjoys arts and crafts and so Rita selected a SuperKids program for her that was hosted at an arts school and offered afternoon activities that included "creative little stuff." Her house was decorated with Dimitria's art projects, including an intricate paper mask that the child recently made at camp. Rita was pleased that she had found a summer program so well suited to her daughter's interests. "This [arts and crafts] is stuff she really likes to do because it's hands on. It's really hands on and she likes to use her imagination and put the colors together and make her own piece of art."

Marissa's daughter, Denise (a first grader at Cedar Elementary), was one of the two students in the sample who was attending Read to Succeed for the second time during the summer of 2013; Denise first started the program after her kindergarten year in school. Marissa described how she initially got Denise involved in the program:

> Well I actually last year, because she was in it last year, I actually went to the Board of Education because I was trying to find something for her to do for the summer because I had her in piano lessons and dance classes also.

Denise really enjoyed Read to Succeed during the summer of 2012 and so when Marissa received a letter in the mail saying that she could be a part of the same program during the summer of 2013, she jumped at the chance to enroll her daughter since she said that registration was on a "first-come, first-serve" basis. The initiative that Marissa

displayed—traveling to the Board of Education to find a program for Denise and jumping at the chance to enroll her daughter in the program for a second time is characteristic of the types of consumer behavior that choice policies often assume parents will engage in.

Rita and Marissa not only acted as consumers in the summer program marketplace, they also exhibited this consumer behavior in accessing other types of educational opportunities. Both Rita and Marissa searched for afterschool opportunities that they felt would provide their daughters with important academic and enrichment opportunities. Dimitria attended an afterschool program hosted at Springfield Elementary and Denise took dance and piano lessons during the school-year. Marissa explained how she found the piano and dance lessons for Denise: "I was just looking online, the internet, just look up certain things like dance classes, ballet, the age limit and stuff like that, whatever - just something constructive for her to do." Marissa said that she chose piano as an afterschool activity for Denise because it was something that Marissa always wanted to do and she enrolled her in dance because Denise wanted to, "do ballet so bad." In many ways Marissa's intensive and customized search and decision-making process about Denise's out-of-school time activities sounds a lot like the efforts that middle class parents make to cultivate their children's talents and interests when school is not in session (Lareau, 2003; Chin & Phillips, 2004). Notably, however, Marissa was far from middle class in terms of her income, educational level and occupational status. Marissa had never graduated from high school because she was forced to take care of her siblings at an early age since her mother was addicted to drugs. She was out-of-work during the summer of 2013.

Rita and Marissa had exercised or planned to exercise choice in where their daughters attended elementary school. When Denise started Pre-K, Marissa decided to send her to school in another part of the city because she "didn't want her[Denise] to go to school [Cedar Elementary] with the neighborhood kids," whom she felt might be a bad influence on her.[35] Rita expressed a lot of concern about the bullying that her daughter experienced at Springfield Elementary during the first grade. Because of this bullying, she tried to transfer Dimitria to a different school at the end of the school year. When she initiated her search for a new school, she learned she had three options—move to a new neighborhood, find a private school, or a find charter school. She quickly realized that she did not have enough money to get a home in a neighborhood with a better school and that the private schools were too expensive. As a result, she tried to enroll her daughter in one of the three charter schools in the area. She said that she liked the charter schools more than Springfield because "seems as though they're [students] held to a higher standard and because it's so hard to get in, that it's like the parents, once their child is in, they hold their children to a certain standard." Unfortunately, Rita did not find out about her charter school options until the deadline for the lottery had passed. As a result, she planned to enroll her daughter the following year: "So when she goes into third, it will be, I'm attempting, I want her to be in a charter school."

"The principal was telling me about…": Brokered selection. All parents who enrolled their children in a program were asked how they found out about the opportunity, if they knew of other opportunities available for their children, and how they eventually signed up for the program. Eight of the ten parents who enrolled their first

[35] Marissa had transferred Denise to Cedar elementary for 1st grade because it was becoming too difficult to drive her daughter across the City for school each morning.

graders in summer learning programs said that a member of their social network informed them of the opportunity and/or facilitated their enrollment in some way. The sociological literature on social networks and social capital refer to the phenomenon of a social actor (an individual or an organization) bringing together two previously unconnected individuals or institutions as "brokerage" (see Small, 2009, for review). When effective, brokerage enhances the resources of one or both of the previously unconnected parties. With the exception of David whose selection process was brokered by a personal friend and Thomas whose selection process was brokered by a social worker from the child welfare agency, all brokerage in this study happened through the school system.

In his review of the literature on organizational brokerage, Small (2009) noted that there are two types of purposive organizational brokerage: "Actor-driven brokerage is the process by which a person in the organization connects people to other people, to other organizations, or to the resources of either; institution-driven brokerage is the process by which an institution, in the normative or cognitive sense, brokers any of these connections" (Small, 2009; p. 19). The school system attempted to engage in institution-driven brokerage for all families by providing schools and families with information about summer learning opportunities through the school system's website and informational materials sent to schools for distribution to parents. Recognizing that this form of brokerage might not be enough for all parents, the school system was more targeted in their outreach to students who were in the Read to Succeed target population (students identified as reading below grade level). The designers of the Read to Succeed program at the school district created letters for children in the Read to Succeed target

population. These letters were addressed to individual children and signed by the child's school-year principal in hopes that parents would be more likely to send their child to the program if they knew the person who was inviting them. Three of the eight parents who had their search successfully brokered mentioned this letter specifically.

Among the eights parents who successfully engaged in brokerage, only two indicated that institution-driven brokerage alone was effective for them. Much more common was for parents to say that an individual-actor at the school (or in Thomas' case at the Child Welfare agency) connected them to the opportunity. Cynthia, a 26-year-old mother of four children, indicated that she experienced multiple forms of institution-driven and actor-driven organizational brokerage. Cynthia's oldest child, Anita, was a first grader at Cedar Elementary during the 2012-2013 school year. During the summer of 2013, Cynthia and her family were living in a house she rented with a Housing Choice Voucher across the street from Cedar Elementary, and she was collecting Temporary Cash Assistance (TCA). Her work placement for TCA was at Cedar Elementary and so she felt very connected to the school and its staff. Anita had never attended a summer learning program in the past, but Cynthia said that she jumped at the chance to get her involved in Read to Succeed after so many people recommended it to her:

> I'm like 'I need to jump on it [signing her up for Read to Succeed] because that can help her.' The school, family, all of them is recommending it and it [The letter from the school] got her name literally printed on the paper for it. So I'm like 'She going to do that. She occupied for the summer'.

For Cynthia, it seems that being flooded with messages about the summer program in the form of the personalized letter home and individuals from her personal and organizational network talking to her about the program was essential to her daughter's enrollment.

When asked how they found out about the program their children were attending, many of those who had their selection process brokered did not mention the letter sent to their home or any other types of recruitment materials (e.g., fliers and pamphlets advertising summer learning opportunities or the Super Summer website). Instead these parents spoke of individual actors from the school (the teacher or principal) informing them of the opportunity and signing their children up for the program. Leandra, a 30-year-old mother of two school-age children, said that she found out about the program during a conversation with the principal of Springfield who said that her first grader and third grader could use the help with reading. Leandra described her decision-making process.

> *Barbara:* How did you find out about it [Read to Succeed]?
>
> *Leandra:* The principal was telling me about. She said "Are you going to enroll them?" I said "Of course because that's what they need." And she was like "Yeah, I was going to say you'd be crazy not to put them in there." I said "Yeah because they need it." She was like… They needed the program because of the reading and also it was kind of convenient for me because I'm working 12 hour shifts.

Like Leandra, Danielle also said that she found out about the program from Springfield's principal. Danielle is a 25-year-old single mother who, during the summer of 2013, was living with her only child, Aisha (a first grader at Springfield during the

2012-2013 school-year), in her mother's house where her teenage sister and brother were also staying. Danielle is one of the two parents in the sample who had a child attending Read to Succeed for the second summer. I asked Danielle how she first became involved in the program. She said that during the summer of 2012 she had no summer plans for Aisha until Springfield's principal saw her in church one day and asked her what Aisha would be doing over the summer. When Danielle said she had no plans, the principal said " 'Okay, just bring her up there [to Springfield] on Monday and we can enroll her.'" The 2012 summer program had a $60 fee associated with the program, but all parents were eligible for a scholarship if they made less than $1300 a month. Danielle was eligible for this system-wide scholarship and so her fee was waived. Underscoring the importance of Danielle's personal relationship with the principal, in Danielle's eyes the principal personally paid her daughter's camp fees: "So the principal ended up paying for her to be in the program." Because her daughter had been enrolled in the program in 2012, Danielle did not see her involvement in 2013 as a choice: "I guess because she was already in it last year, they [the school] just went ahead and put her back in it." The fact that Danielle did not perceive her daughter's enrollment in 2013 as a choice illustrates how important the initial act of brokerage was. Although Danielle had, in fact, exercised choice by enrolling her daughter in the 2012 and 2013 programs, in her eyes, the principal and the school facilitated the entire process.

Stories like Danielle and Leandra's suggest that the principal of Springfield took a personal interest in facilitating the enrollment of some of her students. The principal's concern about her students' activities over the summer seems to have extended beyond her desire to enroll them in the summer program being hosted at her school. Amber's son,

Terrance, was not attending Read to Succeed during the summer of 2013 and instead was spending the summer with his grandfather in Georgia. Amber said that the principal of Springfield called her in July to see how she and Terrance were doing over the summer.

The data suggest that many of the parents who had an organizational broker facilitate their children's enrollment in a summer learning program, would not have enrolled their children in a program in the absence of a broker. Most of these parents did not know of other opportunities available to children over the summer, few had enrolled their first graders in a program during the previous summer, and no one had plans to enroll their children in another formal summer learning activity after Read to Succeed was over in the first week of August. From parents' descriptions of their family environments and child care options (for those who were working) it became clear that, in the absence of summer programming, the children of parents whose selection process was brokered may have encountered significant risks and likely would not have developed their academic skills.

Mary is a 69-year-old woman who takes care of her three great-grandchildren. She does not have formal custody, but had been caring for the children since they were infants because she felt they were being neglected by their mother [Mary's granddaughter] when they were babies. "She [Mary's granddaughter] asked me to babysit them, but the babysitting end up them staying. I see she wasn't really taking care of them, and I guess I couldn't let that happen to my grandchildren." Like Danielle, Mary did not perceive a lot of choice for her great granddaughter, Tyra, over the summer. She said that she found out about "reading program" from the school: "They [Cedar Elementary] gave you a slip to sign them up for the summer program." Tyra had never

been enrolled in a summer program before Read to Succeed and Mary did not know of any other summer learning opportunities. She said: "This [Read to Succeed] was the only one I had got papers from." Mary said that during the summer of 2012, Trya spent most of her time with her mother at her mother's boyfriend's house.

Given Tyra's past summer experiences and her grandmother's lack of information about other summer learning opportunities, if Tyra had not attended Read to Succeed, it seems likely that she would have spent most of the summer in her grandmother's house or visiting her mother's new boyfriend's home. Although Mary tried to facilitate her grandchildren's learning in her home, she faced a number of constraints in successfully enacting promotive parenting strategies. Mary never attended high school herself, had a lot of young children in her care [four elementary school aged great grandchildren in total], and was also caring from her ailing husband who she described as verbally abusive and suffering from dementia.

Mary said that Tyra's mother was starting to take more interest in her children, but she continued to worry about the time that Tyra spent with her mother. Tyra's mother had a history of abusive relationships and Mary felt that the children were not properly cared for when they visited with her. She described what used to happen when the children would spend the weekend with their mothers: "Kids were seeing things they shouldn't have seen, and when they go there on weekends, you know the oldest one [Tyra] will come back, and she'll do little things you know that you catch on to [sexually inappropriate things]." We cannot know for sure, but given her mother's history, it is likely that if Tyra had spent significant time with her mother over the summer she may have been exposed to risks in her mother's home and neighborhood environments. In this

way, the school's brokerage of Tyra's summer learning opportunities not only facilitated the promotion of her academic development, it may also have protected her from being exposed to risks in her non-school environment.

Constrained selection processes. Nine of the fourteen parents who did not enroll their first graders in summer learning programs wanted to enroll their children in a summer learning program and had accurate information about summer learning opportunities. These parents accessed this information on their own or were provided this information by organizational brokers. Importantly, however, these parents were not able to act upon their preferences and information because they faced significant constraints. Some of these constraints align with what has been noted in prior research on inequalities in children's OST activity participation—limited material resources and a limited supply of affordable programming were a major obstacle for some parents (Bennett et al., 2012; Chin & Phillips, 2004). However, I found that non-monetary constraints that are often associated with life in high-poverty contexts such as residential mobility, complicated child care arrangements, and family instability also played a role in parents' inability to enact a successful consumer selection process.

Limited material resources and supply. Read to Succeed was unique in that it was a full-day program that was completely free for families. It was technically open to all students in grade K-3, however, as described in the previous section, the Read to Succeed program was targeted to students identified as reading below grade level on their standardized benchmark assessment taken in the winter of 2013. Higher achieving students were welcomed into the program during general registration. Administrative records confirm that two of the ten students in the qualitative sample who were attending

Read to Succeed during the summer of 2013 scored at or above grade-level on their winter literacy assessment. Notably, two parents of the parents who did not enroll their children in any summer learning programs said explicitly that they did not enroll in Read to Succeed because their children were good readers and the program was for kids who were behind in their literacy skills. Another two parents of proficient readers who had not enrolled in a summer learning program said that Read to Succeed was full by the time they found out about it.

Tonea tried to engage in the summer program marketplace as an idealized consumer. However, she came up short because of the limited supply of free opportunities that she thought would be a good fit for her daughters who were in first and seventh grades during the 2012-2013 school year. Tonea told me that the summer programs offered by City Schools were for students who "needed help with certain issues" and that her children didn't need to go because "they're up to date with learning and everything" and had even passed with honors. Tonea was pleased that her children were doing so well academically: "Mine didn't need [help]…thank God!" However, she was upset that there were no free opportunities well-suited to her daughters. She said that she looked through the papers that were sent to her home describing the summer learning programs available, but could not find something that she could afford: "I was so mad about what I was reading it [booklet describing summer opportunities] and everything was sounding good until I got to the $300." She explained why this fee was out of reach for her:

> Well unfortunately the summer programs that we heard was going around that a lot of the papers that they brought home, a lot of people had wanted like $300 for

> the summer program and by me not working right now that was a little bit much because I would have needed 300 for the oldest one, 300 for the youngest one.

Like Tonea, Reanna wanted her son Eric to be involved in a summer learning program. Eric loves basketball and so Reanna's ideal summer program would involve academic work and basketball. "Like do a learning activity in the beginning and then you can do basketball camp in the afternoon. That would just be my thing for the summer." Reanna searched for this type of opportunity but came up short because everything was "too costly." Read to Succeed appealed to her because it was free and involved learning. However when she spoke to Eric's teacher about it she was discouraged from enrolling him since he was on grade-level with his reading:

> No cause the reading program that was free, his teacher said he was good at his reading so he didn't need to go, which I said it didn't matter. He needs to still learn more. I don't want to put him in the background cause he knows how to read. Push him up, he'll learn more. But she said he was already excellent in his reading.

Unable to find her ideal program (one that involved learning and sports activities), Reanna used her skills as a consumer to search for a basketball training program: "So I was traveling east to west to try to see what one [basketball program] is cheaper. And I found the cheaper one for $60 for the half of the summer." When we met in July, Reanna said that that Eric would be attending this basketball camp for a few weeks in August. Reanna described the camp as a "basketball training" program; it did not seem to offer much in the way of academic enrichment.

For parents like Reanna and Tonea, limited financial resources and a paucity of free opportunities for children who do not require remediation posed significant constraints. Since these parents wanted their children in summer learning programs and had access to information about opportunities, it seems likely that they would taken advantage of an increase in the number of free opportunities available to low-income children who are at or above grade level in their academic skills. These parents might also have benefitted from an organizational broker helping them to identify affordable summer learning opportunities, like SuperKids, that were designed for children of all ability levels.

Residential and family instability. Other parents valued summer learning opportunities, and had access to information about affordable opportunities for their children, but were constrained by non-monetary challenges associated with limited economic capital. Five of the nine parents who exhibited consumer search behaviors but did not end up enrolling their first grade students in summer learning programs had recently or were in the midst of a residential or family change.

Lauren provides a good example of the ways in which the non-material hardships that are often correlated with having limited economic resources constrain parents in their efforts to access educational opportunities on behalf of their children. Lauren is a mother of five children. Her daughter, Autumn, is the youngest in the family and was a first grader at Springfield during the 2012-2013 school-year. Lauren was well aware of potential for kids to lose ground over the summer and thought it was important for parents to prevent it. She explained: "It's not just oh it's summer time it's party time we can play and all of that. You can still have fun but still stay on track." During the

summer between kindergarten and first grade (summer of 2012) she found a summer learning program for Autumn to attend at a local university that she thought was great:

> It was a program where it's they go and not only do they get away and play, but they learn things. Get them in things like dance. What's the other class they had? They teach you to do things like spelling bees and stuff like that competition stuff all that type stuff.

During the summer of 2013, Autumn was not attending any program and Lauren was very distraught about this. She attributed her difficulty in finding Autumn a program to her recent residential move and challenging family dynamics. She and Autumn had been living in the neighborhood of Springfield Elementary, but Lauren decided to move them across town because she was concerned about the violence in the neighborhood and wanted to be closer to her ailing mother. During the last few months of school, Lauren's mother took a turn for the worse and had to be moved into a nursing home. This was a clearly a stressful time for Lauren who is single mom and also struggling with her own physical disability (she was in a wheelchair during the summer of 2013): "I've been dealing with a lot of stuff far as my Mother, and I have been putting stuff on hold because I'm dealing with it by myself." Because of all this change, she said that she did not have the time to search for a summer program for Autumn before the school year ended. She said that as a result all the free programs in the city were full. During the first few weeks of the summer break, Lauren was trying to conduct an idealized consumer search. In addition to asking at Springfield and the new school that her daughter would be attending in her new neighborhood, Lauren "Googled" programs and researched opportunities that came up "word of mouth." Lauren's efforts were not getting her very far. "One person

say well we full, but you can look into such and such." By early July, Lauren was very frustrated that this networking strategy was not getting her anywhere. She felt that her only option left was for her to "go here [YMCA] and beg."

Just like Lauren, residential and family instability affected the summer learning experiences of Michael, Tia's son. Tia is a 29-year-old mother of four children whose youngest son, Michael, was a first grader at Cedar Elementary during the 2012-2013 school-year. Tia was well informed about summer learning opportunities in the City. She had found and enrolled her middle school-age son in an enrichment camp at a local university for the month of July and knew about Read to Succeed. She said that by the time Read to Succeed was opened to on-grade-level children, like Michael, there were not many open spaces left and so he was not selected. Tia said she would have sent him to another day camp since she thought summer learning programs were very important and "he [Michael] wanted to do the whole summer camp thing," but she couldn't manage it this summer because of an impending family and residential change.

During the summer of 2013, Tia was in the process of separating from Michael's father and was preparing to move out of the family's home with her kids. Tia and Michael's father had been together since Tia was fifteen. Tia had a very difficult childhood; she was in-between foster homes when she met and moved in with Michael's father whom she said was much older than she was, but clearly offered her the stability she lacked in her teenage years. Tia said that she was leaving him now because he was controlling and "old school"— after fourteen years of living together, she felt that they had grown apart and it was "time for a change." In August, she planned to move herself and her children to her sisters' house in Baltimore County until she could find a place of

her own in the City. Tia said that these impending changes made her schedule very busy and that she did not want to complicate things even more by enrolling Michael in activities over the summer. Reflecting on how busy she was, she said it was "kind of good" that Michael did not get a spot in the Read to Succeed program since she didn't want to commit to too many things. She knew that there were some camps available to Michael, but felt that it would be too hectic to try and get him there each day when she had so many appointments and errands to run: : "I'm going through a change anyway so I kind of didn't want to commit to too many things… Yeah so that's the only reason why I didn't try to push him and get him into something [a summer program]." She said that she could enroll her older son in the summer program despite her busy schedule because he was old enough to get himself up in the morning and out of the door to camp without her help.

Parents like Tia and Lauren were concerned about summer learning and adept at accessing information about summer learning opportunities. In this way, these parents were certainly capable of engaging in a summer program marketplace as consumers. In fact, both Lauren and Tia had successfully engaged in a consumer selection processes in the past or on behalf of other children. However, a parent's personal capacity to engage in the summer program marketplace as a consumer and a reasonable supply of free or reduced-cost programs was not enough to ensure access to summer learning opportunities for the low-income children in my sample. Living in a disadvantaged social context made these families vulnerable to unforeseen residential and family instability, which played a major role in preventing many of the children from engaging in enriching summer learning opportunities. As demonstrated in Chapter Three, these instabilities also

obstructed parents' capacity to promote their children's academic skills or to prevent their children from being exposed to risk in their family and neighborhood environments

Brokerage fails. As discussed above, brokerage was the most common process through which children of parents in this study were effectively connected to a summer program. Brokerage circumvented the choice process for a parent by directing personalized information to him or her about a specific summer learning opportunity and facilitating the child's enrollment into that activity. Most often, this brokerage was accomplished by an organizational actor such as a principal or teacher. Five of the fourteen parents who did not enroll their first graders in a summer learning opportunity acknowledged that the school had shared some information about a summer program suitable for their children. In all five of these cases, information that an organizational actor at the school communicated was inaccurate or incomplete (brokerage misfiring) or was rejected by the parent (brokerage backfiring).

Brokerage misfiring. Michelle wanted her son, Derik, to go to a summer learning program. When asked to describe what she would like for her son to be doing over the summer if money were no object, Michelle said: "something where you're going to learn something; it's going to be fun but you're going to learn something….Just something to keep him from being sitting outside doing nothing with trouble lurking around him." Michelle said that she spoke to Derik's teacher at Cedar Elementary about summer learning opportunities and the teacher told her that he didn't need to go to a camp because he wasn't behind on his reading: "She [the teacher] told me that if he was behind on something or whatever issues that she noticed, she would recommend for them to go to one of those camps." While it is true that Derik was not identified as below-grade level

on his benchmark assessment and so was not technically in the Read to Succeed target population, there certainly were opportunities available to him over the summer. For example, SuperKids camps featured exactly what Michelle was looking for in that they offered children of all abilities the opportunity to engage in an academic program and have a traditional camp experience. Perhaps most importantly for Michelle who wanted her son to do something that would prevent him from being outside in her neighborhood with "trouble lurking around him," SuperKids camps took children out of their neighborhoods for the day and exposed them to a variety of enrichment activities across the City.

As described in Chapter Three, Dana's son Frank struggled with reading and behavior in first grade. As a result, he was recommended to repeat the first grade during the 2013-2014 school-year. Dana did not know of any summer learning programs in the City and said her son was spending most of the summer outside playing basketball with his friends. Because of his low reading level, Frank was certainly in the Read to Succeed target population. As a low-income African American male student who was already behind academically, he was also at serious risk of falling further behind over the summer (Downey et al., 2004). When asked if the school had recommended any summer programming, Dana said that the teacher had originally given her papers for the "summer school program" [Read to Succeed] but never followed up after it was decided that Frank would be retained in first grade. In Dana's eyes, the decision to retain Frank in first grade meant that he didn't "need" to go to the summer program:

> *Dana:* They was saying that they wanted him to go to summer school, so I filled it out, took it back to the teacher and she said that she had it, but, after that, that's

when I got called in for another meeting to come to discuss about him repeating the first grade again, so I guess they never sent --

Barbara: So you never heard anything [about the summer program]? …

Dana: Uh-huh [no].

Importantly, Baltimore City did not offer any sort of credit-bearing summer school program for elementary school students during the summer of 2013; summer program participation and grade retention were not officially connected in anyway. Read to Succeed was the recommended activity for all children, like Frank, who were behind in their reading skills regardless of whether or not they were going to be promoted to the next grade level. It seems that the school initiated a process of brokering Frank's participation (Dana was informed of the opportunity and given the appropriate paperwork). However, according to Dana, in the meeting about Frank's retention, no one followed-up with her to ensure that Frank would be attending the Read to Succeed program. Since Dana thought that the school's summer program was credit-bearing and therefore unnecessary if her son was being retained, she seems to have mistakenly interpreted the school's silence on the issue of the summer program to mean that her son didn't need to attend. Since interviews with teachers were not a part of this study, it is not clear whether the misunderstanding of Frank's eligibility was the result of the teacher's or Dana's confusion. What is clear however is that Frank would likely have benefited from more intensive or directed brokerage; his mother was open to the program but misunderstood or was misinformed about its purpose and his eligibility.

Brokerage backfiring. In the cases of Dana and Michelle, the schools' attempts at brokerage misfired in that both received inaccurate or incomplete messaging about Read

to Succeed and other summer learning opportunities available to Baltimore City elementary school students. Three parents' descriptions of the information they had about summer learning opportunities suggest that the school supplied them with accurate information about summer opportunities, but that the attempts at brokerage backfired. The children of these three parents were identified as reading below grade level in the winter of 2013 and were in the Read to Succeed target population, which means that they had early access to the Read to Succeed information. The children also could have enrolled in SuperKids or the Parks and Recreation summer programs. All three parents said that the school recommended their first graders for summer programming, but they rejected the school's invitation. In all three cases, this rejection of attempts by the school at brokerage seem to be connected to parents' isolation from and anger toward the school or neighborhood.

Leah is a 26-year-old mother of two girls including, Kianna, who was a first grader at Cedar elementary during the 2012-2013 school-year. Leah's eleven-year-old daughter lives with her grandmother (Leah's mother) most of the time, but stays with Leah on the weekends and during school vacations. During the summer of 2013, Leah and Kianna were living with Leah's 89-year-old father who was financially supporting them because Leah had never been able to find full-time employment (she stopped attending high school after giving birth to her first daughter). Kianna did not attend Pre-K or Kindergarten because Leah had trouble locating the paperwork necessary to enroll her in school; she said that Kianna's father had stolen Kianna's social security card, which she thought she needed to enroll her in school. Leah said that Kianna was far behind her

first grade classmates during the school-year and that as a result she was recommended for the Read to Succeed program. Leah turned down the invitation:

> I guess it was like some little summer program, school… I didn't even want to deal with them. I didn't even feel like dealing with them no more. I don't feel like dealing with them. August, maybe I'll deal with them, but not right now.

As discussed in Chapter Four, Leah was *hands-off* with Kianna's care over the summer. Leah said that Kianna spent the summer in the house watching TV; she did not mention any educational activities or structured routines that took place over the summer.

Leah's rejection of the invitation for Kianna to attend Read to Succeed seems to be directly connected to her fraught relationship with the school and her desire not to have to "deal with them" over the summer. In her discussion of Cedar Elementary, Leah made clear that she was bothered by her daughter's individual teacher and by the school more generally. In describing Kianna's first grade teacher, she said that the woman was "nice" but "got on my nerves at one point and time" because she continually expressed concern about Kianna's academic difficulties. Leah felt that the teacher's constantly bringing up Kianna's struggles to Leah and Cedar's principal was an indication that the teacher was not doing her job well:

> I mean, because it's like, alright, you're the teacher. You're there to teach, so teach. Don't keep running to me or running to people, talking about, "Well, Kianna don't know this. Kianna don't know that." Then teach her. You're the teacher. That's what your job is to do. If she don't know it, help her out. If you

> know that she has a problem with math, help her out in that department. Don't go running to the principal like, "Well, we need to come up with a solution because she don't know this." Teach her.

At the end of the year, the school said that Kianna would have to repeat the first grade and Leah was very angry about this:

> They sent me a letter, and basically was saying, "Well, we think that she's just doing first grade again." And all this other stuff, and I'm just like, "I don't even want to hear it." I don't want to hear it because I've been telling them from day one, she's never been to school.

When Leah first enrolled her daughter at Cedar she had told them that that it would be Kianna's first year in school and had recommended that Kianna be placed in Kindergarten. The school said that Kianna would have to go to first grade because she was already six years old. Leah felt that it was unfair for the school to hold Kianna back when she had originally suggested that Kianna start out in Kindergarten. Leah thought it was the school's fault for not listening to her in the first place and was concerned about how her daughter would interpret being held back:

> You all [the school] should've never put her in a first grade in the first place. My daughter ain't no dummy. She's smart. She know first grade, second grade, third grade, not no first grade, kindergarten, pre-K. It don't go backwards. It goes forward…Yeah, so she feel as though I'm passing on with my friends, but the thing is, they not trying to do that. They trying to hold her in the first grade this year again.

Leah did not have a positive schooling experience herself. She said she often got into trouble at school and dropped out before earning a diploma. It seems likely that these early experience influenced her delay in enrolling he daughter in school, her interpretation of the school's expression of concern regarding her daughter academic progress, *and* her decision to turn down the invitation for her daughter to attend Read to Succeed.

Like Leah, Ashley rejected the invitation for her daughter, Renee [a first grader at Springfield elementary in 2012-2013], to attend Read to Succeed. Ashley described Renee as an excellent reader and took pride in the fact that she encourages Renee to read each day. The school told Ashley that Renee was behind on her reading and suggested that she attend the summer program, which Ashley interpreted as a "summer school." Ashley was upset by the letter recommending Renee to Read to Succeed since she blamed the school for any difficulties Renee was having in reading. She told me that during the school-year Springfield's first grade teacher left the school for two quarters and was replaced by an ineffective substitute. Like many other Springfield parents, she said that the first grade classroom was chaotic during those two quarters and that the children did not seem to be learning from this substitute. Ashley felt that it was unfair that the school was now suggesting that her daughter attend summer school, since she thought it was their fault if her daughter was behind:

> I'm like okay but that was just really a problem for me. I'm like how do you let first graders go without a teacher for two quarters. That's really, really crucial for their learning. How do you let that happen? And then now you're sending me a letter telling me that my child is below in reading and she's going to need to go to

summer school in order to be on, when she goes to second grade to be on the level with everyone else.

Read to Succeed was intended to be an opportunity for children who were behind academically to catch up to their peer. However, Leah and Ashley did not interpret their children's invitation to the program in this way. Instead, these parents clearly saw the invitation to Read to Succeed as an unfair judgment and punishment of themselves and their daughters. In both cases it is likely that this misinterpretation was due, at least in part, to these parents' pre-existing negative feelings toward the school more generally.

Conclusion

Summary

The analyses featured in this chapter investigated the process through which low-income African American families contending with high-poverty neighborhood contexts made decisions about whether to enroll their children in summer learning programs. I identified two types of selection processes—consumer selection and brokered selection. Eleven of the families in my sample attempted a consumer selection process. These families were concerned about summer learning loss, had done research about the summer learning opportunities available to their children, and were equipped with information about a variety of opportunities.[36] Notably only two of these eleven parents successfully enrolled their first grade students in programs. The other nine parents faced obstacles that prevented them from achieving their goal of selecting a summer learning

[36] It is important to note that some of the families who exhibited the behavior of an idealized consumer did mention information that they received about summer learning opportunities from an organizational broker. In this way, "brokered selection" and "consumer selection" are not mutually exclusive categories.

program for their child from being realized. For some (n=4) these obstacles were related to the supply of affordable programs tailored to students who are not below grade level. Others however (n=5) spoke of non-monetary constraints including residential and family instability that made it difficult for them to access summer learning opportunities for their children.

Most of the families (n=8) who had enrolled their children in a summer learning program were brokered into this opportunity by an organizational-actor. The stories that these families told me about their lives and about their children's summer learning experiences in the past strongly suggest that in the absence of this brokerage many of these children would not have been involved in any summer programming. While organizational brokerage was an effective strategy for many, it did not work for all. Some parents' (n=5) interactions with organizational actors regarding summer learning opportunities did not result in their children enrolling in a program. In these cases, the parent received inaccurate or incomplete information about summer learning opportunities (brokerage misfiring) or rejected the messaging that the organizational-actor was trying to send them (brokerage backfiring). Brokerage backfiring occurred among those parents who were disconnected from or angry with the school. Importantly, most of these parents also struggled to create home environments that were conducive to summer learning. Notably, the three parents who were identified in Chapter Four as being "hands off" in their summertime parenting are also cases in which organizational brokerage failed.

Implications for Research and Policy

Prior research on the opportunity gap in out-of-school time learning, has primarily relied upon cross-class comparisons to identify why it is that low-income children do not participate in as many or as high-quality out-of-school time learning opportunities as middle and high-income children do (Bennett et al., 2012; Chin & Phillips, 2004). This body of research has highlighted that low-income parents' limited resources (including time, money, and transportation) prevent them from accessing high quality summer and after-school activities. These studies found that parents of all social classes want their children to attend summer learning programs, but working class and poor parents are often unable to access these opportunities because they cannot afford them or are not able to get their children to affordable programs because of a lack of transportation and time. By looking at differences between low-income families in how they made decisions about summer learning activities and by studying this process in a context where free and low-cost programs were available to families, I was able to investigate how social context influenced families' decision-making about summer programming. I found that the complex non-monetary challenges that families in high-poverty contexts face, particularly those associated with residential and family instability, often prevented parents from accessing educational opportunities that would support their children's academic development over the summer.

Policies and programs that hope to curb educational inequality rely on the notion that increasing the number of choices available to low-income families about where they live, where their children go to school, and how their children spend time afterschool will improve low-income children's access to educational opportunities and reduce inequality in educational outcomes. These policies assume that given an ample number of

affordable choices, poor families will be able to engage in the educational and housing marketplaces as consumers seeking to maximize their families' opportunities. My research suggests that at least when it comes to summer program choice, parents' capacity to engage in the marketplace as consumers is constrained by monetary *and* non-monetary resources. As a result, increasing the supply of free summer learning opportunities without addressing these constraints may exacerbate inequalities since the most disadvantaged families may not be able to engage as consumers.

As has been noted by research on school choice, access to accurate information about the choices on-offer in an educational marketplace is one way in which poor families with limited social capital are at a disadvantage (Levin, 2009; Neild, 2005; Schneider et al., 1998). Organizational brokerage through which the school or an actor within the school informs parents of their choices and helps connect them to appropriate opportunities is one way to make the summer program marketplace more equitable. By making a concerted effort to inform all parents of summer learning opportunities, the Baltimore City School System attempted to broker families' involvement in summer learning programs. My data suggest that this was a successful strategy for some families who, in the absence of brokerage, were unlikely to enroll their children in a program. Importantly, I found that actor-based organizational brokerage (i.e., the principal or teacher personally speaking to a parent) was more effective than institutionally-based organizational brokerage (i.e., the school system sending home a pamphlet and letter) in facilitating children's enrollment in a summer program. Future research should consider under what conditions actor-driven brokerage is more effective than institution-driven brokerage.

Since not all parents indicated that an organizational-actor attempted to broker their child's enrollment in a summer program, it is clear that whether a child was brokered depended on the principal's or teacher's knowledge of summer programming, interest in signing students up for the opportunities, and the actor's personal relationship with the child's parent. Parents at both schools sampled for this study spoke of organizational brokerage. However, the data suggest that the principals of Springfield and Cedar elementary schools differed in their approach to the promotion of their students' summer learning. Three families from Springfield mentioned the personal involvement of Springfield's principal in their children's summer activities and none of the Cedar families directly mentioned the principal in discussing their children's summer plans. This difference suggests that the Springfield principal was a more effective or motivated broker of summer learning opportunities than the principal of Cedar. While this may be related to the fact that school district was hosting their summer program at Springfield and not at Cedar, it is also possible that this principal was simply more interested in supporting students' summer learning or felt more equipped to affect it. Interviews with school principals were not part of this study's design and I did not speak to all first grade parents at the schools. As a result, it is important not to infer too much about the differences in the principals of Cedar and Springfield. However, future studies should consider the causes and consequences of school leaders' divergent attitudes and activities regarding out-of-school time learning.

Policymakers and practitioners should think creatively about how to motivate principals and teachers to be concerned about their students' summer activities and how best to equip them with accurate information about summer learning loss and about

summer learning opportunities. For example, we might imagine that if the school-based practitioners present at the meeting with Dana about Frank's retention had seen it as a priority to enroll struggling students like Frank in summer learning opportunities, they might have used the meeting about retention as an opportunity to ensure that Dana fully understood the importance of summer learning and the choices she had available to her. In providing school-based practitioners with information about summer learning opportunities we should inform them of the monetary and non-monetary constraints that their students' families might face in accessing available opportunities and help them to think creatively about how to help families address these challenges. For example, we might imagine that if a broker had sat down with Tia to think through Michael's options over the summer and talked through the risk of summer learning loss with her, she might have found a program that would be convenient enough for her as she dealt with her impending residential and family changes.

While formalizing the role of a summer learning broker will likely help connect many low-income children to summer learning opportunities, it will not work for all. No amount of encouragement and information could help certain families overcome the challenges that residential and family instability can often create. Gabriella, whose struggles with unemployment and housing are featured in Chapter Four, was well-aware that her son, Jordan, would have benefitted from Read to Succeed and very much wanted to enroll him in the program. However, the multiple and complex challenges she faced in regards to housing, employment, and childcare made it impossible for her to get her son to the Read to Succeed site each morning since she also had to drop off her younger children at daycare and be at her TCA work requirement before 9am. As a result,

Gabriella opted to send Jordan to day care with his younger siblings instead of Read to Succeed. It is difficult to imagine how an individual broker could have facilitated Jordan's enrollment. For families like Gabriella's, addressing inequality in children's summer learning opportunities will require a much broader and holistic approach to improving the financial and residential stability of low-income families.

My finding that the school's attempts to broker children's enrollment in summer learning opportunities sometimes backfired highlights the important role of an individual's attitude toward a brokering organization and its individual actors. The parents in my data who rejected attempts at brokerage tended to have negative feelings toward the school and neighborhood. Additionally, it seems that the cases in which brokerage failed tended to be those that that needed access to summer learning opportunities the most. Notably, the school's attempts at brokerage failed for the three parents in the sample who exhibited the "hands off" parenting strategy described in Chapter Four of this dissertation. Future research should consider when and why acts of brokerage might fail so that when policymakers and practitioners attempt to bolster schools' capacity to broker family's access to opportunities their efforts do not unintentionally exacerbate inequalities by leaving behind the most disadvantaged children.

CHAPTER SEVEN

CONCLUSION

This mixed methods dissertation used qualitative data to explore how disadvantaged family and neighborhood contexts influenced the summer learning experiences of first grade students who attended school in a high-poverty neighborhood in Baltimore City and used quasi-experimental techniques to identify the effects of academic and non-academic summer school resources offered to Baltimore City elementary school students. The qualitative and quantitative studies had their own individual goals, but were also designed to complement one another (Small, 2011). In this chapter I put the findings from the three studies—as presented in Chapters Four, Five, and Six, into conversation with each other. In so doing, am able to generate new hypotheses about the seasonal pattern of inequality and to offer recommendations regarding issues that should be considered by policymakers and practitioners interested in reducing educational inequality and curbing summer learning loss.

In the first section of this concluding chapter, I summarize the results from the three analytic chapters highlighting the connections among the findings. Next, I discuss how the limitations of the data affect my ability to interpret the qualitative and quantitative findings together. Finally, I discuss the implications that the findings have for researchers, policymakers, and practitioners.

Summary

Chapter Four, "Summertime in the City: How Parents Manage Resources and Risk Over the Summer," described how a sample of low-income parents of first grade students who attended elementary school in a high-poverty Baltimore City neighborhood

managed the resources and risks present in their family and neighborhood environments to influence their children's summer learning experiences. The fourteen parents featured in this analysis had not enrolled their first graders in summer learning programs. As a result, their first grade students' exposure to summertime resources and risks were largely dependent on the ways in which these parents managed their home and neighborhood environments.

The parents featured in Chapter Four reported having limited financial resources and most perceived high levels of risk in their neighborhood environment. However, the analysis revealed important differences between families in summertime parenting styles (attitudes and behaviors). These differences influenced children's exposure to learning resources and neighborhood risks over the summer. A group of parents that I refer to as *summer teachers* (n=4), were concerned about summer learning loss and felt personally responsible for how much their children learned over the summer. They set clear academic goals for their first graders over the summer and consistently engaged in academic work and enrichment activities with their children. They also took concrete steps to protect their children from encountering risks in their neighborhood environment. Another group of parents that I refer to as *aspiring summer teachers* (n=7) shared the *summer teachers*' attitudes regarding summer learning, but were unable to consistently enact the promotive and preventative parenting strategies characteristic of the *summer teachers*. One important finding from this analysis was that recent and often unexpected non-monetary hardships, particularly residential and family instability, distinguished *summer teachers* from *aspiring summer teachers*. Finally, there was a small group of parents (n=3) in this sample who were not aware of or disagreed with the notion of

summer learning loss and did not feel personally responsible for their children's academic gains over the summer. These parents were largely *hands-off* in their summertime parenting. They did not institute any academic routines over the summer nor did they consistently deploy strategies aimed at preventing their children's exposure to risk.

Chapter Four demonstrated that despite their limited means and the significant risks they faced in their high-poverty neighborhoods, some low-income parents were able to enact promotive and preventive parenting strategies over the summer. Most however, were not able to overcome the challenges associated with their limited economic resources, paucity of neighborhood resources, and significant neighborhood risks to create high-quality learning environments for their first graders over the summer.

Chapter Five, "What Does it Take To Curb Summer Learning Loss Among Low-Income Elementary School Children?" investigated whether summer school resources can complement the learning resources present in the homes of some low-income children and compensate for the dearth of summer learning resources and multitude of neighborhood risks faced by others. Specifically, I identified the effects of enrollment in academic and non-academic summer school programming in a predominantly low-income African American sample of Baltimore City elementary school children. I found that enrollment in a full-day summer program featuring academic and non-academic resources had a positive effect on the reading skills of students who enrolled in the program. Students who enrolled in the program performed higher on their fall 2012 standardized reading assessment than a matched comparison group of students who did not enroll in any program and higher than a comparison group of students who enrolled

in the half-day program. Notably, enrollment a half-day of academic programming did not have a statistically significant effect on the observed measures of reading skills among those students who enrolled in the half-day program compared to their non-enrolled peers. The intensity of neighborhood risks and family stressors described by the *aspiring summer teachers* and *hands-off* parents I interviewed for the qualitative study bolstered my hypothesis that the non-academic summer school resources featured in the full-day program which included field trips, enrichment,and additional time in a safe and structured environment likely were the most salient mechanisms through which the full-day program had its positive effect.

One implication of the positive effects of a full-day summer learning program might be to scale-up or replicate such programs in low-income communities so that more children have access to them. While this strategy would likely support the summer learning of those students who choose to enroll, it could unintentionally exacerbate educational inequality within low-income neighborhoods if the most disadvantaged families and those children most vulnerable to summer learning loss do not participate (Ceci & Paperino, 2005). In order for summer learning programs to reduce educational inequality between and within social classes, they need to reach students most at-risk for summer learning loss. Summer learning programs such as the program under investigation in Chapter Five are often voluntary, but we know little about how families navigate their summer learning program choices to select into (or out of) summer learning opportunities on behalf of their children. A desire to address this gap in the literature, motivated the analysis featured in Chapter Six.

Chapter Six, "Selecting Summer: How Low-income Elementary School Parents Navigate Choice in the Summer" investigated the process through which low-income African American families who were managing with limited economic resources and contending with high-poverty neighborhood contexts made decisions about whether to enroll their children in summer learning programs. I identified two types of selection processes—consumer selection and brokered selection. Consumer selection is parent-directed whereas brokered selection involved the school organization or an organizational actor circumventing the choice process for the parent and facilitating a child's enrollment. Voluntary educational programs such as summer learning programs, out-of-school time learning opportunities, and school choice programs assume that a parent will engage in educational marketplaces as a consumer who will independently search for information about educational opportunities, identify a program that is a good fit,and then choose to enroll their child in that program (Henig, 1995). Although 11 of the 24 low-income parents of first grade students in the qualitative sample attempted to engage in the summer program choice marketplace as consumers, only two were successful. The rest were constrained by monetary and non-monetary hardships. The monetary hardships were generally related to a limited supply of free or low-cost opportunities designed for children who did not require remediation over the summer. The non-monetary hardships included residential mobility, complicated childcare arrangements, and family instability.

I found that an organizational actor circumventing the choice process for parents by serving as a "broker "(Small, 2009) was the way that eight of the ten parents whose children attended a summer learning program became involved in that program. Although we cannot know for certain, the data suggest that few of these children would have been

involved in the program in the absence of this actor-based organizational brokerage. The findings of this chapter suggest that a school's brokerage of summer opportunities for the most vulnerable students could be a way to ensure that a summer school program, like the program under investigation in Chapter Five (Read to Succeed), is able to reach the most disadvantaged students and achieve its compensatory mission. Notably, however, I found that brokerage did not always work as intended because for some parents the broker's message was either inaccurate, incomplete or misinterpreted. This finding illustrates the importance of formalizing the role of school-based brokers for summer learning opportunities so that brokers are equipped with accurate information and tools to effectively communicate that information. In some instances, this communication will requires a high degree of sensitivity and diplomacy, in recognition of some parents' negative feelings toward the institution of schooling based on their past experiences.

Limitations

Before discussing the implications that my findings have for research, policy, and programs, it is important to acknowledge the limitations of the qualitative data and the extent to which the qualitative and quantitative data complement each other. First, I used a purposive sampling strategy in the qualitative study. As described in Chapter Three, my sample was well-suited for exploring heterogeneity in summertime parenting styles and parents' decision-making regarding whether to enroll a children in summer learning programming. The qualitative findings are suggestive of the summer learning experiences of first grade students from high-poverty schools who did not enroll a summer program during the summer of 2013 and the process through which parents selected into summer programming. However, because the sampling frame was confined to two schools within

one neighborhood and was not drawn randomly within those two schools, the data are not suitable for causal inferences and the findings may or may not apply to families and schools outside the sample.

When considering the extent to which the qualitative data can be used to explain the quantitative findings, it is important to remember that the qualitative and quantitative data were collected in different years. I investigated the effects of enrollment in the 2012 summer program and collected qualitative data about first grade students' summer learning experiences during the summer of 2013. The summer learning experiences of children who did not enroll in a summer learning program and the process of selection into summer programming may have differed in 2012 and 2013 because of changes to the district's recruitment strategy, the summer learning programs available to elementary school children, or perceived changes to neighborhood conditions.

During the summers of 2012 and 2013, students who were identified as reading below grade level were targeted for City Schools' elementary school summer learning program (Read to Succeed). However, there is some evidence that the district was more intentional about targeting students who were reading below grade level during the summer of 2013. A comparison of the available 2012 and 2013 data suggests that a higher percentage of the 2013 Read to Succeed enrolled student population had been identified as reading below grade level.[37] There were also differences between the

[37] Since I do not have program enrollment data from 2013, I am not able to directly compare the characteristics of the 2012 and 2013 Read to Succeed student populations. However , according to data used for the quantitative analysis featured in Chapter Five, 64.58% of first and second grade students who were in my analytic sample and enrolled in the half and full-day Read to Succeed programs during the summer 2012 were identified as reading below grade level on their Winter 2012 DIBELS assessment. The Baltimore Campaign for Grade Level Reading reported that 80% of the students enrolled in the Read to Succeed 2013 student population were identified as reading below grade level (Baltimore Campaign for

summers of 2012 and 2013 in the City Schools' summer learning programs on-offer. In 2012, eleven of the 21 Read to Succeed sites were intended to be half-day programs and ten were full-day programs (Read to Succeed—Plus!). In 2013 all 18 sites were full-day programs. Finally, the summer of 2013 was reported to be one of the most violent summers in Baltimore City's recent history (Assaf et al., 2013). Although the 2010 Baltimore City crime data reported in Chapter Three indicate that neighborhood in which I conducted the qualitative study has been dealing with issues of violent crime for some time, many of the parents in the qualitative study referenced the media attention that their neighborhood was receiving in the summer of 2013 because of recent gun violence in and around the neighborhood. It is possible that this increased attention influenced parents' perceptions of the neighborhood during the summer of 2013, which might have also influenced their summertime parenting, and their decision-making about whether to send their children to summer learning programs.

Implications for Research and Policy

Summertime Parenting & the Seasonal Pattern of Inequality

The qualitative findings of Chapter Four suggest that heterogeneity in parenting practices within high-poverty contexts contributes to the observed increase in educational inequality among low-SES students during the summer months (Downey et al., 2004). The parenting strategies of the *summer teachers* in my sample align with the existing research on parenting strategies that promote positive youth development and academic

---

Grade Level Reading, 2013). Because of differences in the samples and potential differences in the metrics used to determine students' reading proficiency, these figures are not directly comparable. However, the substantial differences in these two statistics are highly suggestive that the district was more intentional about recruiting students reading below grade level for the summer of 2013 program than they were for the summer of 2012 program.

outcomes in high-poverty contexts (Furstenberg et al., 1999; Jarrett & Jefferson, 2003). My findings suggest that future quantitative studies should consider whether promotive and preventive parenting strategies are associated with the summer learning of low-income elementary school students. Additionally, researchers of seasonal patterns of learning should investigate whether the effects of parenting practices on academic achievement align with the hypothesis of schools as compensatory institutions (Downey et al., 2004; Entwistle et al., 1997; Heyns, 1978). This hypothesis predicts that parenting strategies will have a stronger influence on child outcomes during the summer months than they do during the school-year when children spend less time at home and the school organization can compensate for the dearth of learning resources in some children's home environments.[38] My data suggest that we should investigate the influence of promotive *and* preventive parenting strategies (Furstenberg et al., 1999) on the outcomes of elementary school students during the school-year and summer periods. Additionally, future research should consider whether the seasonal effects of parenting on academic achievement differ by student background.

The qualitative findings demonstrated that most parents wanted to promote their children's summer learning, but were unable to institute their desired parenting strategies or to enroll their children in summer learning programs because of the multiple stressors

[38] Cheadle's (2008) investigation of the relationship between parents' enactment of Lareau's (2003) "concerted cultivation" and the academic achievement trajectories of a nationally representative sample of elementary school children lends some support to this hypothesis. Cheadle's (2008) measure of "concerted cultivation" included indicators of parental involvement, children's activities, and learning resources inside the home. He found that "concerted cultivation" was related to math and reading achievement at kindergarten entry. The measure was associated with math achievement growth during the kindergarten school year and during the summer between kindergarten and first grade. The measure was related to reading achievement growth during the kindergarten and first grade school-years, but not during the intervening summer. My data suggest that expanding this measure of parenting to include preventive strategies and parental expectations is warranted.

they faced and the time and money scarcity these stressors created. Parental stress and family hardship can certainly impact the quality of parent-child interactions (Crnic, Gaze & Hoffman, 2005; Gershoff, Aber, Raver & Lennon, 2007) and parents' choices regarding their children's participation in educational programming (Rhodes & DeLuca, 2014; DeLuca & Rosenblatt 2010) in any season. However, the summer seems a particularly risky season for low-income families in high-poverty contexts for a number of reasons. First, during the summer, parents are responsible for taking care of their young children all day long or must arrange for other people to watch their children. Arranging for reliable childcare is stress-inducing for parents of all social classes, but surely causes more stress and requires more consequential tradeoffs when parents have limited financial resources or face inflexible work schedules. In their qualitative study of how low-income single mothers in four different cities provided for their families, Edin and Lein (1997) reported that the summer was a particularly challenging time period for mothers working in low-wage jobs because it was difficult to find affordable and reliable full-time child care. Future research should investigate whether parental stress and parenting practices suffer during the summer when parents are forced to navigate educational and caretaking choices on behalf of their children.

The emerging research on how individuals respond to scarcity suggests that the additional stress associated with summertime childcare for low-income parents who often already have limited money and time resources taxes their already overburdened "bandwidth" (Mullainathan & Shafir, 2013). That is, arranging for childcare or entertaining a child full-time during the summer while also worrying about making ends meet depletes parents' cognitive resources, which can lead them to underperform in their

jobs, in their relationships, and in their parenting. Mullainathan and Shafir (2013) provided an instructive example of the ways in which the stressors associated with finding childcare might tax the bandwidth of a single mother of young children who is trying to hold down two service sector jobs:

> Besides the financial juggling we talked about already, you must also juggle daycare for your kids, which is expensive. You know of one program that is highly subsidized, but will accept only one of your kids, and it closes much too early to help with your second job. So you use a patchwork of solutions. You arrange for your younger child to stay with your grandmother. You must also arrange for transportation from school to your grandmother's for one child and from daycare for the other. And because you work in the service sector, your child care needs depend on the hours your staff supervisor give you. (176)

The struggles described in this vignette sound remarkably similar to the challenges faced by parents like Beverly, Lauren, Monica, and Tia in the qualitative study who had to make tradeoffs regarding the quality of their first grade student's summer experiences because of logistical challenges associated with child care needs for other children, work schedules, and unforeseen instability. Research investigating the consequences of time and money scarcity on individual behavior should borrow from the research on the seasonal pattern of inequality to consider whether and how measures of parental bandwidth change with the season.

Summer Learning Programs for Low-Income Families

Mullainathan and Shafir (2013) argued that providing the mother in their vignette with a highly subsidized day care program for all of her children could have far-reaching positive consequences for the entire family. Not only would a full-day subsidized daycare program for all of the mother's children reduce volatility in her employment and potentially improve her children's educational outcomes, they contend that providing this mother with such a program would give her something "even more precious" as it would give back "the mental bandwidth" that she is currently using to "fret, worry, and juggle" her child care arrangements (Mullainathan & Shafir, 2013: pg. 176). In this way, they predicted that such a program might improve the mother's working memory, impulse control, and even the quality of her parenting. "From this perspective, help with child care is much more than that. It is a way to build human capital of the deepest kind: it creates bandwidth" (176-177). Mullainathan and Shafir (2013) argued that the outcomes used to measure the success of programs like subsidized childcare programs typically fail to measure the impact that these types of programs may have on improving a participant's bandwidth. They speculated that, as a result, that the effects of many social programs and policies for the poor are likely underestimated.

The goal of summer learning programs for low-income students is typically to reduce summer learning loss. As a result, these programs are usually evaluated by measures of summer learning. My qualitative findings suggest that just as a subsidized childcare program would likely increase a working mother's bandwidth, so too might a high-quality accessible full-day summer learning program. If Mullainathan's and Shafir's (2013) theory is correct, increasing the summertime bandwidth of parents could also have significant consequences on the quality of parenting and, as a result, on student outcomes.

A randomized control trial of Building Educated Leaders for Life (BELL) summer program revealed that the program had a statistically significant effect on the amount of time that parents spent reading with their children and the extent to which they encouraged their children to read (Chaplin & Capizzano, 2006). The evaluation also considered the program's effects on other adult activities. The only statistically significant difference between the treatment and control group was that the parents of children randomized into the treatment group a higher probability of attending computer classes. The authors speculated that this result might have been attributable to the program providing parents with an additional source of childcare that gave them the time to participate in such a class. Future studies should investigate the relationship between summer programs for elementary school age children and parental outcomes like mental health and employment.

The quantitative data analysis demonstrated that a full-day summer learning program featuring academic and non-academic resources had a positive effect on summer learning. The analysis strongly suggests that non-academic resources, including curriculum intended to support students' social and emotional development as well as additional time in a safe child-centered environment, were critical components of the full-day program's success. The qualitative data sheds light on why these resources might be so important. The majority of parents (n=21) in the qualitative study wanted to support their students' summer learning and felt that parents were responsible for how much or how little children learned over the summer. However, ten of the fourteen parents who had not enrolled their children in summer learning programs struggled to consistently enact promotive and preventive parenting strategies. These findings suggest that at least

among low-income African American first graders living in a high-poverty neighborhood, the full-day program created a strong treatment-control contrast. That is, the academic and non-academic summer learning resources featured in the full-day program offered children who enrolled a drastically different summer learning experience from what they would have received in the absence of the program. Since children in the half-day program went home at lunchtime, the half-day may not have created a strong enough treatment-control contrast to have a detectable effect on students' reading skills. Future evaluations of summer programs, should consider investigating the counterfactual condition directly by conducting qualitative studies (interviews and participant observation) with members of a group randomized into a control condition. Additionally, it is critical to know which of the non-academic resources (curriculum, field trips, or additional time in a school-like environment) mattered the most to the full-day program's effectiveness. These mechanisms could be clarified through mixed methods studies that include quantitative measures of program participation and implementation fidelity as well as qualitative data from direct observations of program activities and interviews with key program stakeholders (i.e., staff, students, and parents).

The qualitative data suggest that summer learning programs could attract a more disadvantaged student population and have a greater longer-term impact if, when designing them, program developers had in mind the multitude of stressors facing low-income parents in high-poverty neighborhoods such as a lack of transportation, a need for childcare for children who are not yet school-age, material hardship, housing instability, and unemployment. By coordinating services through various city agencies and altering their recruitment strategies, summer learning programs could address some of the

stressors and constraints which prevented many of the families in my qualitative sample from accessing summer learning opportunities and from instituting promotive and preventive parenting practices.

Elev8 Baltimore is a good example of a local program that is simultaneously attempting to curb summer learning loss and address the complex challenges that students' families are facing. In Baltimore City, Elev8 has partnered with four high-poverty schools to provide out-of-school time learning opportunities for middle school students (including a full-day summer learning program), mental and physical health services for children, and a wide variety of family services such as on-site workforce development for parents.

Redesigning summer learning programs to address the stressors that prevent enrollment is likely not sufficient for reaching all families who would benefit from summer programming. My findings from Chapter Six demonstrate that some families will need assistance in navigating the summer choice marketplace. Many (n=8) of the parents in the qualitative study were responsive to efforts of school-based personnel to broker their children's access to a summer learning program. While effective for some, the qualitative data make clear that brokerage was not institutionalized to the extent that school officials reached out to all parents and was also not customized enough to be an effective means of connecting all families to summer programming. To my knowledge, connecting all children to a summer learning experience is not typically part of a school's responsibility. The qualitative findings featured in Chapter Six suggest that schools could augment their compensatory social function if they took greater responsibility for children's learning during the summer months. These efforts would not require that all

schools host a summer learning program. Instead, policymakers need to provide resources (time, money, and training) that will equip school staff with information about the issue of summer learning loss, the opportunities available to their students, and the most effective brokerage strategies to use with parents. Future studies should investigate the extent to which schools are already brokering children's access to out-of-school time activities and identify the most promising brokerage strategies for children most at-risk of summer learning loss.

TABLES

Table 3.1.
Comparison of final analytic sample to those dropped from sample because of missing data

	Male	Low-Income	African American	Chronically Absent in 2011-2012	Mean Percentile Rank on Stanford-10 Reading Achievement Test in 2011-2012
Students with missing outcome data (N=1,345)	49.89%	93.83%	91.30%	25.58%	48.24
Students with no outcome missing data (N=6,351)	48.83%	89.17%	81.04%	14.94%	53.89
Total (N=7,696)	49.01%	89.98%	82.84%	16.80%	52.96

Note. Variables observed in 2011-2012 school-year.

Table 3.2.
Characteristics of two sampled schools and all other elementary schools

	Unweighted Mean for All Non-Sampled Neighborhood Schools Serving Students in Grade K-5 (N=109)	Springfield Elementary	Cedar Elementary
% Low Income	91.56	97.35	96.17
% African American	84.66	99.12	99.71
% Special Education	17.07	14.12	15.34
% Chronically Absent	21.67	24.71	22.12
% Mobile	8.72	7.94	13.57
School Size	315.06	340.00	339.00
2010 Characteristics of Community Statistical Area in Which School is Located			
% African American	69.70	96.72	96.97
Median Household Income	$38,994	$37,035	$23,974
Violent Crime Rate (crimes per 1,000 residents)	16.85	24.78	27.05

Note. School characteristics are aggregates of the demographic characteristics of the school's K-5 student population during the 2012-2013 school year. Some of these schools served students in PreK and some of these schools served students in grades 6-12. In calculating these school-level statistics, pre-K students and students above grade 5 were not included. Charter schools serving students in grades K-5 (N = 21) and schools for students whose needs could be met in a traditional school setting (N=2) were also not included in this analysis. Neighborhood characteristics were calculated by the Baltimore Neighborhood Indicator Alliance—Jacob France Institute (2012), which relied on census and crime data collected in 2010.

Table 4.1
Background characteristics of analytic subsample (N=14)

Parent Pseudonym	Parent Age	Parent Employment Status	Parent highest level of education	Gender of focal child*	Parent is married to or cohabitating with focal child's father?	Total number of children living with parent during summer of 2013
Reanna	28	Unemployed	HS Grad	M	Y	2
Gabriella	24	TCA	HS Grad	M	N	3
Ashley	33	Unemployed	HS Grad	F	N	3
Monica	23	TCA	Not Grad	F	N	2
Lauren	43	Part-Time	HS Grad	F	N	1
Amber	25	Part-Time	HS Grad	M	N	2
Melissa	26	Full-time job	HS Grad	F	N	1
Leah	26	Unemployed	GED	F	N	1
Dana	26	Unemployed	HS Grad	M	Y	1
Tia	29	Full-time	GED	M	Y	3
Tonea	33	Unemployed	HS Grad	F	N	2
Michelle	29	Unemployed	HS Grad	M	N	3
Beverly	27	Unemployed	HS Grad	M	Y	4
Lisa	missing	Disability	HS Grad	F	Y	3

Note. The analytic subsample for this analysis (n=14) includes all parents in the full study sample (n=24) whose first grade student was not enrolled in a summer learning program during the summer of 2013. Parents' names have been changed to respect their privacy. All background information was collected at the time of the interview.
*For the purposes of this study, the focal child is the parent's child who was a 1st grader at one of the two sampled schools during the 2012-2013 school-year

Table 4.2
Typology of summertime parenting in high-poverty contexts

	Attitude toward summer learning	Promotive strategies	Preventive strategies
Summer teachers (N=4)	Parent was concerned about the issue of summer learning loss and either directly or indirectly expressed a sense of personal responsibility for the child's learning over the summer	Facilitated or participated in academic activities with child Facilitated or participated in enrichment and recreational activities with child	Closely supervised child at all times Implemented "oversight strategies" for instances when the child was outside of parent's direct supervision
Aspiring summer teachers (N=7)	Parent was concerned about the issue of summer learning loss and either directly or indirectly expressed a sense of personal responsibility for the child's learning over the summer	Encouraged child to engage in academic work on his/her own Did not require the child to engage in academic work or was inconsistent about these activities Allowed child to spend a significant portion of his or her day in unstructured recreation/play	Allowed child to be unsupervised or very loosely supervised when the child was outdoors
Hands-off (N=3)	Unaware of the issue of summer learning loss or disagreed with the idea of it Did not express a sense of personal responsibility for their child's learning over the summer	Did not require the child to engage in academic work or was inconsistent about these activities Allowed child to spend a significant portion of his/her day in unstructured recreation/play	Allowed child to be unsupervised or very loosely supervised when the child was outdoors

Note. This typology is based on the research regarding parenting practices that promote positive youth development in high-poverty contexts (Furstenberg et al., 1999) and on themes that emerged from interviews (N=14) conducted with low-income parents of first grade students who were not enrolled in a summer learning program. Parents' placement in each category is based on their description of their parenting beliefs and behaviors during the summer of 2013.

Table 5.1
Characteristics of student sample (n=6,351 students)

Variables	Percentage
Male	48.83%
African American	81.04%
Low-income	89.17%
Chronically Absent from school during the 2011-2012 school-year	14.94%
Identified as Reading Below Grade Level on DIBELS Winter 2012 Assessment	58.07%

Note. Variables observed in 2011-2012 school-year.

Table 5.2
Characteristics of schools attended by sample (N=90 Schools)

	Unweighted Mean	SD	Min	Max
School Size*	457.20	176.99	190.00	1305.00
School Attendance Rate	93.12%	1.50%	90.19%	96.41%
% low-income students at school	90.46	10.74	30.73	100.00
% African American students at school	84.15	24.37	9.94	100.00
Neighborhood Characteristics of Schools				
Median Household Income (2010)	$37,835.15	$14,189.53	$13,811.24	$96,855
% African American Residents (2010)	69.73	30.67	2.72	97.10
Mean Violent Crime Rate (2010)	16.77	7.93	0.00	28.80

Note. School characteristics observed in 2011-2012. Neighborhood characteristics reflect the characteristics of the school's community statistical area. The violent crime rate reflects the number of violent crimes committed in the neighborhood per 1,000 residents. Data on the characteristics of a school's CSA is based on analysis conducted by the Baltimore Neighborhood Indicators Alliance - Jacob France Institute (2012) using the 2010 American Community Survey, Census and Baltimore City Police Department data.

*The large spread in school size is due to the fact that 50 of the elementary schools in Baltimore City that used Wireless Generation for their benchmark assessments served students in grades K-8 . These schools have a larger student population than schools serving students in grades K-5.

Table 5.3.
Means DIBELS scores, by season

	Panel A --Cohort 1 Nonsense Word Fluency Score Spring of kindergarten-Spring of 1st grade				Panel B--Cohort 2 Oral Reading Fluency Score Spring of 1st grade-Spring of 2nd grade			
	Spring 2011	Fall 2011	Winter 2012	Spring 2012	Spring 2011	Fall 2011	Winter 2012	Spring 2012
Mean	34.18	31.09	53.92	64.10	54.79	53.32	78.73	89.52
SD	19.42	20.59	25.35	30.40	31.76	30.77	34.94	36.28
Min	0	0	0	0	0	0	0	2
Max	145	139	146	141	215	210	215	234
# test-takers	2536	3057	3143	3252	2483	2891	3007	3099

Note. The DIBELS assessments were given in Baltimore City according to a Benchmark assessment schedule. According to this schedule, students were supposed to be given the spring assessment in May, the fall assessment in September, and the winter assessment in January.

Table 5.4
DIBELS score piecewise growth model for academic and summer learning of first and second grade students

	Panel A-- Cohort 1 (NWF Score)		Panel B--Cohort 2 (ORF Score)	
	Model 1a	Model 2a	Model 1b	Model 2b
Initial Status (Constant)	33.32***	33.20***	53.14***	52.80***
	(0.46)	(0.52)	(0.62)	(0.82)
Summer Growth	-2.54***	-2.98***	-0.37	-1.01**
	(0.42)	(0.38)	(0.36)	(0.34)
Academic-Year Growth	29.43***	29.08***	32.76***	32.37***
	(0.70)	(0.61)	(0.61)	(0.52)
Academic-Year Growth (Squared)	-6.38***	-6.44***	-7.20***	-7.01***
	(0.33)	(0.28)	(0.290)	(0.24)
Middle/High Income^		10.75***		22.10***
		(1.23)		(1.87)
Not African American		3.03***		2.70+
		(0.84)		(1.41)
Male		-2.80***		-4.50***
		(0.64)		(1.08)
Summer Growth X Middle/High Income		2.73*		2.93**
		(1.15)		(1.07)
Academic Period X Middle/High Income		1.44		3.22*
		(1.84)		(1.61)
Academic Period Squared X Middle/High Income		1.139		-1.62*
		(0.84)		(0.74)

^ Middle/High Income is a dummy variable indicating that the child was not FARM eligible during the 2011-2012 school-year.
Standard errors in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Table 5.5
Characteristics of analytic sample, by enrollment status

	% Male	% African American	%Low-income	% Chronically Absent in 11-12 School Year	% Enrolled in Summer School 2011	Mean National percentile rank on Stanford-10 reading assessment (spring 2012)
Not Enrolled (N=5,665)	48.86	79.72	88.58	15.62	19.03	54.53
Enrolled in half- or full-day program (N=686)	48.54	91.98	94.02	9.33	37.76	48.60
Total (N=6,351)	48.83	81.04	89.17	14.94	21.05	53.89

Note. All variables observed in 2011-2012. All variables had complete data except for students' percentile rank on the Stanford-10 reading assessment. 105 students in the analytic sample were missing data on this variable.

Table 5.6

School and neighborhood characteristics of schools that hosted a summer program and those that did not

	Host School (N=20)	Non-Host School (N=70)	All (N=90)
School Characteristics			
2011-2012 Mean school Attendance Rate	93.40%	93.03%	93.12%
% Low-income students at school	94.49	89.31	90.46
% African American students at school	91.84	81.95	84.15
Neighborhood Characteristics			
Median Household Income (2010)	$35,175.60	$38,595.03	$37,835.15
% African American Residents (2010)	81.25	66.44	69.73
Mean violent Crime Rate (2010)	19.16	16.08	16.77

Note. School characteristics observed in 2011-2012 school-year. Although 21 schools served as host sites, all test score data was missing from one of the host site schools and so that school was dropped from the analytic sample. Neighborhood characteristics reflect the characteristics of the school's community statistical area. The violent crime rate reflects the number of violent crimes committed in the neighborhood per 1,000 residents. Neighborhood characteristics of the school's CSA were determined by the Baltimore Neighborhood Indicators Alliance --Jacob France Institute (2012) analysis of Baltimore City Public Schools data, 2010 Census data and 2010 Baltimore City Police Department data.

Table 5.7.
Characteristics of students who enrolled, by program type

	% Male	% African American	% Low income	% Chronically Absent in 11-12 School Year	% Enrolled in Summer School 2011	Mean National percentile rank on Stanford-10 reading assessment
Enrolled in half-day program (N=345)	48.99	87.83	95.07	10.43	42.03	46.15
Enrolled in full-day program (N=341)	48.09	96.19	92.96	8.21	33.43	51.13
All (N=686)	48.54	91.98	94.02	9.33	37.76	48.60

Note. All variables observed in 2011-2012. All variable had complete data except for students' percentile rank on the Stanford-10 reading assessment. Nine students who enrolled in one of the two variants of the program were missing data on this variable.

Table 5.8
Model for Fall 2012 Oral Reading Fluency Score (ORF) in 3 Matched Samples

	Panel A Treatment: Academic & Non-Academic Resources OLS Coefficients for students who enrolled in the full-day program (treatment group) and a control group of students who did not enroll in any program		**Panel B Treatment: Academic & Resources** OLS Coefficients for students who enrolled in the half-day program (treatment group) and a control group of students who did not enroll in any program		**Panel C Treatment: Non-Academic Resources** OLS Coefficients for students who enrolled in the full-day program (treatment group) and a control group of students who enrolled in half-day program	
	M1	M2	M1	M2	M1	M2
Treatment	6.22**	5.53***	1.14	0.72	4.70	4.27**
	(2.02)	(0.96)	(2.07)	(0.94)	(2.89)	(1.48)
Grade 2		13.11***		14.56***		13.04***
		(0.93)		(0.89)		(1.51)
Not Low-Income		4.12*		2.21		4.70
		(1.87)		(2.05)		(2.86)
Not African American		3.00		1.78		2.07
		(2.41)		(1.41)		(3.09)
Male		0.50		0.14		-0.02
		(0.92)		(0.89)		(1.36)
End of Year ORF Score (standardized)		29.56***		30.60***		29.22***
		(0.55)		(0.51)		(1.28)
Constant	55.39***	48.27***	55.79***	48.34***	56.91***	49.82***
	(1.167)	(0.81)	(1.193)	(0.85)	(2.34)	(1.76)
Number of observations	1023	1023	1035	1035	686	686

Standard errors in parentheses. + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

Table 5.9
Sensitivity analysis for the effects of the full-day program on students who enrolled

Gamma	P-critical		Lower Bound of 95% CI for H-L Estimate	Upper Bound of 95% CI for H-L Estimate
1		0.005	5.5	6
1.05		0.015	5	7
1.1		0.035	4	7.5
1.15		0.073	3	8.5
1.2		0.132	2.5	9.5
1.25		0.214	1.5	10
1.3		0.314	1	10.5
1.35		0.426	0.50	11.5
1.4		0.540	-0.5	12
1.45		0.647	-1	12.5
1.5		0.741	-1.5	13.5

Note. Analysis conducted using Stata's rbounds package (DiPrete & Gangl, 2004). These analyses were conducted after 1:1 nearest neighbor matching with 24 covariates and an exact match on grade level, which resulted in 341 matched pairs.

Table 6.1
2013 Summer learning programs most accessible to qualitative sample

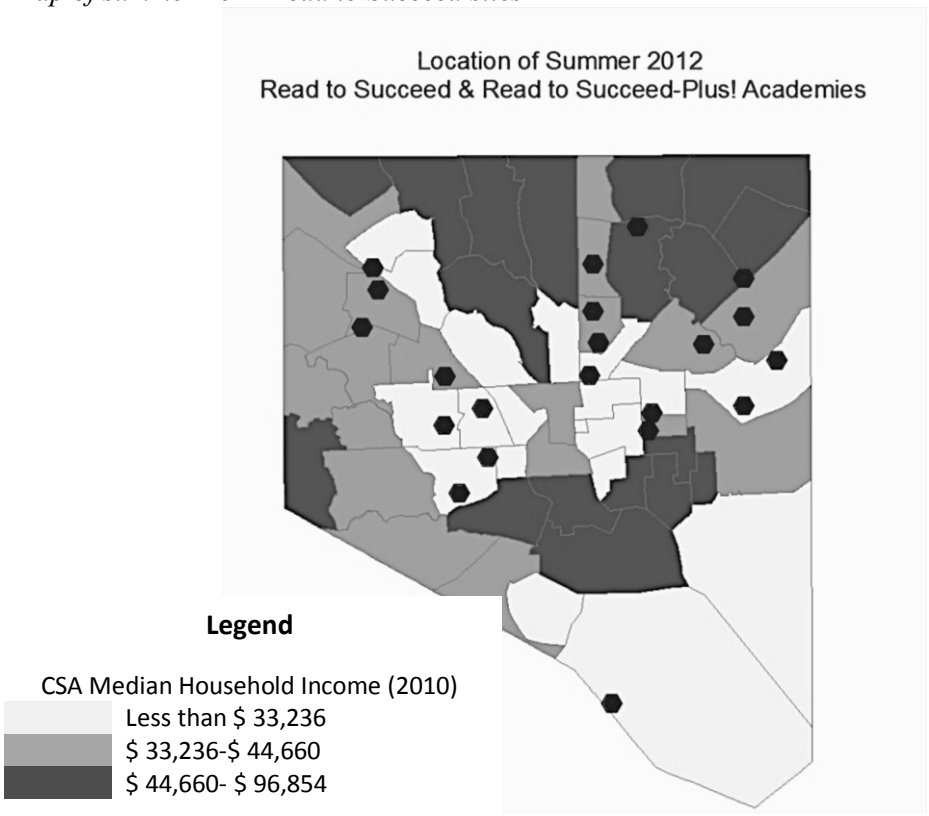
	Program Description	Cost	Location /transportation	Target Students
Read to Succeed	Full-day 5 week program of academic and enrichment activities.	Free	Housed at 18 sites across the city including Springfield Elementary (one of the two sampled schools). Students provided with free transportation to the summer program sites.	K-3 students identified on their standardized benchmark assessment (DIBELS) as reading below grade level were given the first opportunity to enroll in the program, but it was officially open to all students in non-charter schools
SuperKids	Full-day 6 week program of academics and enrichment activities.	$60 fee that was waived if parent demonstrated financial hardship.	Hosted at sites across the City. All students provided with free transportation.	Open to all public school students in grades 1-3
Parks and Recreation	Each recreation center offered its own camp program. Most included an academic component.	Camp fees ranged from $60-$500 depending on duration and activities (NSLA, 2012)	Hosted at Parks and Recreation Centers across the City.	Open to all students.

Note. These three programs were considered most accessible because they were all publicized on the Baltimore City Super Summer 2013 website, were offered at a free or reduced-cost to families, and were either hosted at a site that was less than two miles from the sampled schools or offered free transportation.

FIGURES

Figure 3.1

Map of summer 2012 Read to Succeed sites

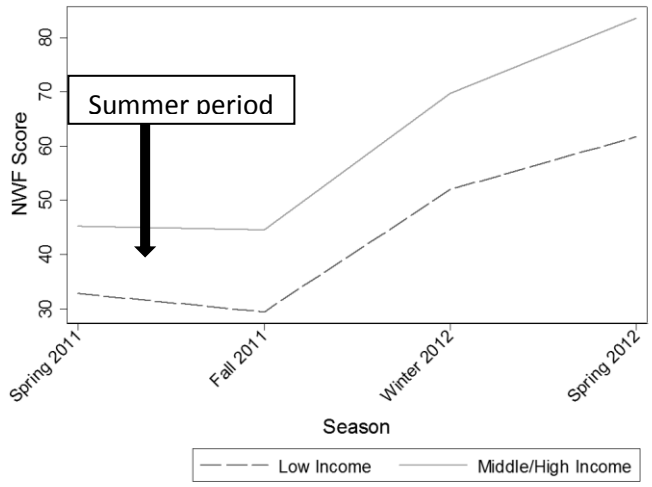


Note. I created this map by merging GIS files with data about neighborhood characteristics prepared by the Baltimore Neighborhood Indicators Alliance – Jacob France Institute (2012) with the addresses of the 2012 Read to Succeed sites. BNIA used data from the American Community Survey (2010) and Baltimore City Public Schools to prepare their GIS files.

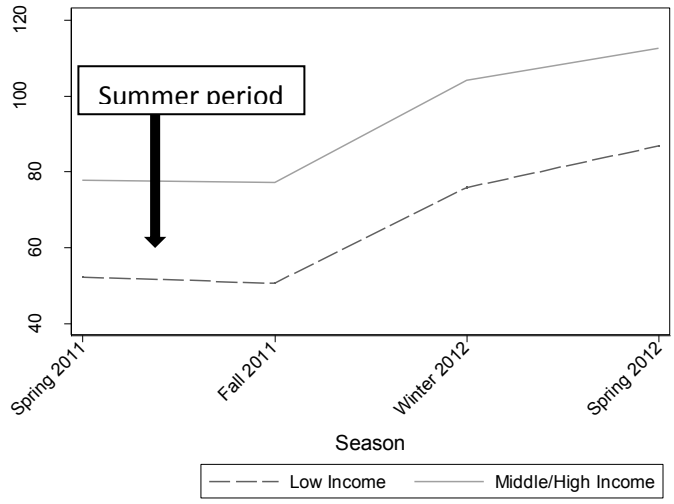
Figure 5.1

Seasonal pattern of achievement in analytic sample, by family income

Cohort 1 (First grade in 2011-2012)
Nonsense Word Fluency Assessment



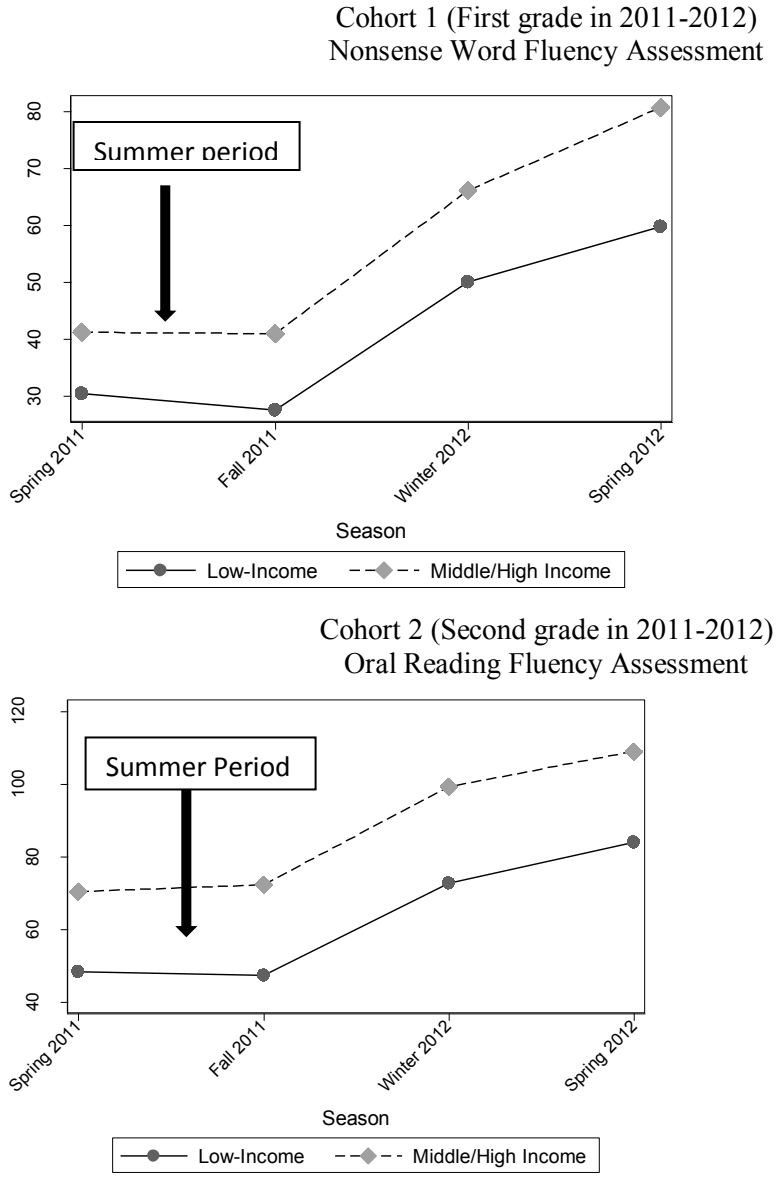
Cohort 2 (Second grade in 2011-2012)
Oral Reading Fluency Assessment



Note. Family income is measured as a binary variable indicating if the student qualified for Free or Reduced Priced Meals during the 2011-2012 school-year.

Figure 5.2

Predicted achievement trajectory for two hypothetical students who differ only by their family income

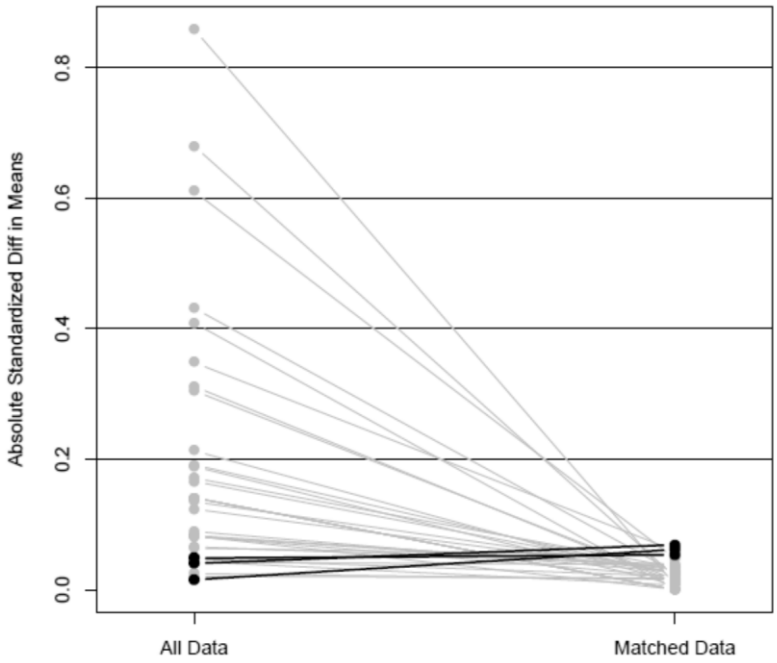


Note. These charts were generated by calculating the predicted DIBELS scores for an African American male student (one who qualified for free and reduced priced meals and one who did not) in each cohort. Predicted values were based on the multilevel model described in Chapter Five.

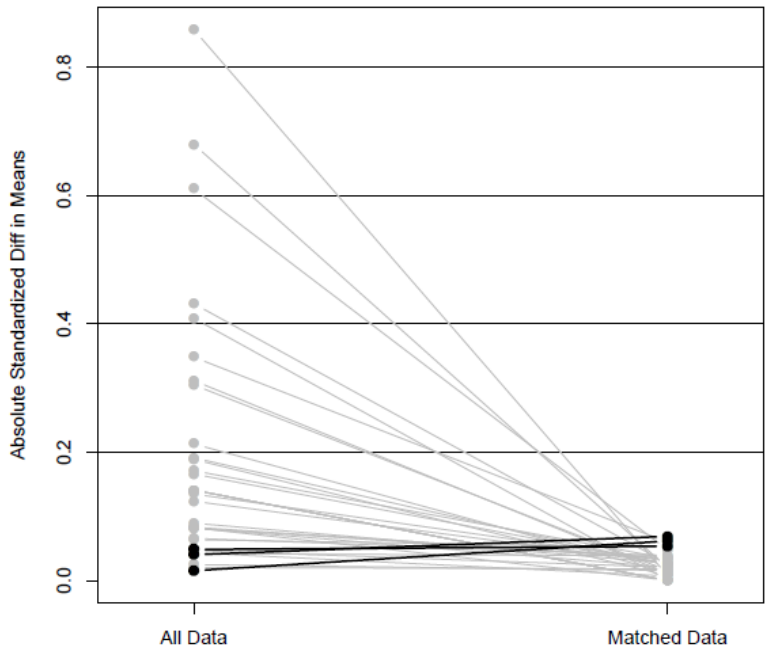
Figure 5.3

Standardized biases of all covariates before and after implementation of propensity score matching routine

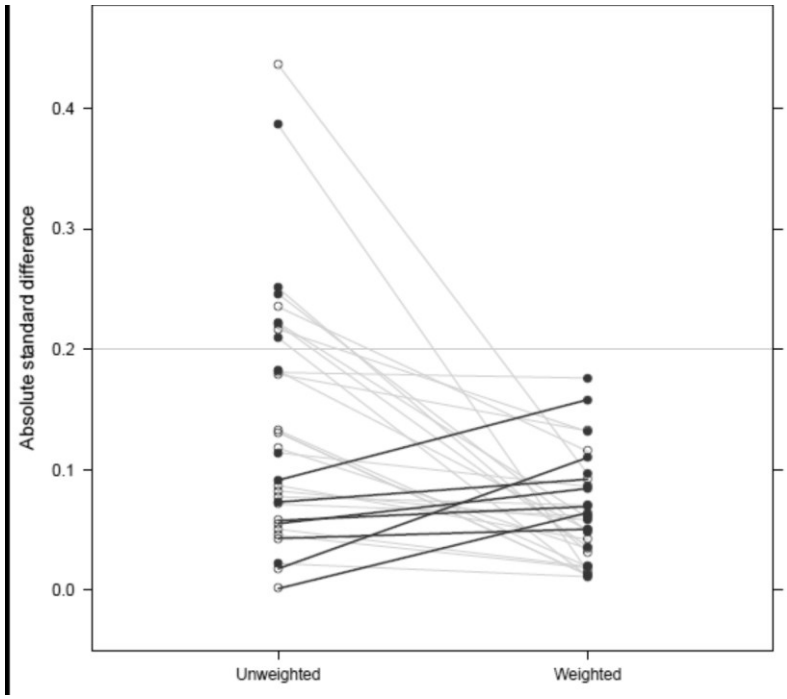
Full-day enrollees Vs. Not enrolled in any program



Half- day enrollees vs. Not enrolled in any program



Full-day enrollees vs. half-day enrollees



Note. All three matched samples were constructed using student, family, school, and neighborhood characteristics to predict program enrollment (see table Al.1). All matching was done within grade level so that a treatment group student could only be matched to a control group student in their cohort. When a covariate had missing data, the value was imputed and a missing data indicator was created (Haviland et al., 2007; Rosenbaum & Rubin, 1984).

REFERENCES

Afterschool Alliance. (2010). Special report on summer: Missed opportunities, unmet demand. *America after 3pm*. Washington DC: Afterschool Alliance.

Alexander, K. L., Entwisle, D. R., & Dauber, S. L. (1993). First- grade classroom behavior: Its short- and long- term consequences for school performance. *Child Development,* 64(3), 801-814.

Alexander, K. L., Entwisle, D. R., & Olson, L. S. (2001). Schools, achievement, and inequality: A seasonal perspective. *Educational Evaluation and Policy Analysis*, 23(2), 171–191.

Alexander, K. L., Entwisle D. R., & Olson, L. S. (2007). Lasting consequences of the summer learning gap. *American Sociological Review*, 72(2) , 167-180.

Alexander, K., Entwisle, D., & Olson, L. (2014). *The long shadow: Family background, disadvantaged urban youth, and the transition to adulthood.* New York, NY: Russell Sage Foundation.

Allington, R. L., McGill-Franzen, A., Camilli, G., Williams, L., Graff, J., Zeig, J., Zmach,C.,.& Nowak, R. (2010). Addressing summer reading setback among economically disadvantaged elementary students. *Reading Psychology,* 31(5), 411-427.

Allison, P. D. (2001). *Missing data: Quantitative applications in the social sciences*. Thousand Oaks, CA: Sage Press.

Amato, P. R., & Fowler, F. (2002). Parenting practices, child adjustment, and family diversity. Journal of Marriage and Family, 64(3), 703-716.

Anderson, A. R., Christenson, S. L., Sinclair, M. F., & Lehr, C. A. (2004). Check & Connect: The importance of relationships for promoting engagement with school. *Journal of School Psychology,* 42(2), 95-113.

Assaf, C., Fenton, J., George, J. & Fox, L. (Augsut 31, 2013). At violent summer's end, weary city grapples with the toll. *The Baltimore Sun.* Retrieved from: http://darkroom.baltimoresun.com/2013/08/crime-story/#1

Beckett, M., Borman, G., Capizzano, J., Parsley, D., Ross, S., Schirm, A., & Taylor, J. (2009). *Structuring out-of-school time to improve academic achievement: A practice guide* (NCEE #2009-012). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://files.eric.ed.gov/fulltext/ED505962.pdf

The Annie E. Casey Foundation. (2014). *KIDS COUNT Data Center* [Data Tables]. Baltimore, MD: The Annie E. Casey Foundation. Retrieved from http://datacenter.kidscount.org

Baltimore Campaign for Grade-Level Reading. (2013). *The story of the Baltimore Campaign for Grade Level Reading.* Retrieved from: http://issuu.com/baltimoreglr/docs/tell_your_story/23?e=0/4644329

Baltimore Neighborhood Indicators Alliance – Jacob France Institute. (2012). *Vital Signs 10* [data file]. Retrieved from www.bniajfi.org/vital_signs

Barnett, M. A. (2008). Economic disadvantage in complex family systems: Expansion of family stress models. *Clinical Child and Family Psychology Review, 11*(3), 145-61.

Bennett, P. R., Lutz, A., & Jayaram, L. (2012). Beyond the schoolyard: The contributions of parenting logics, financial resources, and social institutions to the social class gap in structured activity participation. *Sociology of Education* 85(2):131--- 157.

Benson, J., & Borman, G. (2010). Family, neighborhood, and school settings across seasons: When do socioeconomic context and racial composition matter for the reading achievement growth of young children? *Teachers College Record*, *112*(5), 1338–1390.

Biancarosa, G., Bryk, A. S., & Dexter, E. R. (2010). Assessing the value-added effects of literacy collaborative professional development on student learning. *The Elementary School Journal*, *111*(1), 7–34.

Bloom, H. S., Hill, C. J., Black, A. R., & Lipsey, M. W. (2008). Performance trajectories and performance gaps as achievement effect-size benchmarks for educational interventions. *Journal of Research on Educational Effectiveness*,*1*(4), 289-328.

Bodovski, K., & Farkas, G. (2008). Concerted cultivation" and unequal achievement in elementary school. *Social Science Research,* 37(3), 903-919.

Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *The Future of Children*, 7(2),55–71.

Borman, G. D., Benson, J., & Overman, L. T. (2005). Families, schools, and summer learning. *The Elementary School Journal,* 106(2), 131–150.

Borman, G. D., & Dowling, N. M. (2006). Longitudinal achievement effects of multiyear summer school: Evidence from the Teach Baltimore randomized field trial. *Educational Evaluation and Policy Analysis*, 28(1), 25–48.

Borman, G. D., Goetz, M. E., & Dowling, N. M. (2009). Halting the summer

achievement slide: A randomized field trial of the KindergARTen Summer Camp

Boyd, M. & DeLuca, S. (Forthcoming). Fieldwork with In-depth interviews: How to get strangers in the city to tell you their stories. In M.J. Oakes & J. Kaufman (Eds.), *Methods In social epidemiology.* San Francisco, CA: Jossey-Bass.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design.* Cambridge, MA: Harvard University Press.

Bryk, A. S., & Raudenbush, S. W. (1988). Toward a more appropriate conceptualization of research on school effects: A three-level hierarchical linear model. *American Journal of Education*, 65–108.

Bryk, A. S., Sebring, P. B., Allensworth, E., Easton, J. Q., & Luppescu, S. (2010). *Organizing schools for improvement: Lessons from Chicago*. Chicago, IL: University of Chicago Press.

Burkam, D. T., Ready, D. D., Lee, V. E., & LoGerfo, L. F. (2004). Social-class differences in summer learning between kindergarten and first grade: Model specification and estimation. *Sociology of Education*, *77*(1), 1–31.

Burton, L. M., & Jarrett, R. L. (2000). In the mix, yet on the margins: The place of families in urban neighborhood and child development research. *Journal of Marriage and Family*, *62*(4), 1114-1135.

Cavanagh, S. E., & Huston, A. C. (2006). Family instability and children's early problem behavior. *Social Forces*, *85:* 551 – 581.

Cavanagh, S. E. (2008). Family structure history and adolescent adjustment. *Journal of Family Issues, 29:* 944-980.

Ceci, S. J., & Papierno, P. B. (2005). The rhetoric and reality of gap closing: when the"

have-nots" gain but the" haves" gain even more. *American Psychologist*, *60*(2), 149-160.

Cheadle, J. E. (2008). Educational investment, family context, and children's math and reading growth from kindergarten through the third grade. *Sociology of Education*, *81*(1), 1–31.

Chin, T., & Phillips, M. (2004). Social reproduction and child-rearing practices: Social class, children's agency, and the summer activity gap. *Sociology of Education*, *77*(3), 185–210.

Condliffe, B., Boyd,M. & DeLuca, S.D. (Forthcoming). Stuck in school: How social context shapes school choice for inner city students." *Teachers College Record*

Condron, D. J. (2009). Social class, school and non-school environments, and black/white inequalities in children's learning. *American Sociological Review*, *74*(5), 685–708.

Conger, R. D., Conger, K. J., & Martin, M. J. (2010). Socioeconomic status, family processes, and individual development. *Journal of Marriage and Family,* 72(3), 685–704.

Cooper, C. E., Osborne, C. A., Beck, A. N., & McLanahan, S. S. (2011). Partnership instability, school readiness, and gender disparities. *Sociology of Education*, *84*(3), 246-259.

Cooper, H., Charlton, K., Valentine, J. C., Muhlenbruck, L., & Borman, G. D. (2000). Making the most of summer school: A meta-analytic and narrative review. *Monographs of the Society for Research in Child Development*, *65(1), 1-127.*

Cooper , H. , Nye , B. , Charlton , K. , Lindsay , J. , & Greathouse , S. (1996). The

effects of summer vacation on achievement test scores: A narrative and meta-analytic review. *Review of Educational Research, 66 (3),* 227 – 268

Coulton, C., & Irwin, M. (2009). Parental and community level correlates of participation in out-of-school activities among children living in low income neighborhoods. *Children and Youth Services Review*, *31*(3), 300-308.

Covay, E., & Carbonaro, W. (2010). After the bell: Participation in extracurricular activities, classroom behavior, and academic achievement. *Sociology of Education*, *83*(1), 20–45.

Creswell, J. W. (2012). *Qualitative inquiry & research design : choosing among five approaches.* 3rd ed. Thousand Oaks: Sage Publications.

Crnic, K. A., Gaze, C., & Hoffman, C. (2005). Cumulative parenting stress across the preschool period: Relations to maternal parenting and child behaviour at age 5. *Infant and Child Development*, *14*(2), 117-132.

D'Agostino, R., Lang, W., Walkup, M., Morgan, T., & Karter, A. (2001). Examining the impact of missing data on propensity score estimation in determining the effectiveness of self-monitoring of blood glucose (SMBG). *Health Services and Outcomes Research Methodology*,*2*(3), 291-315.

DeLuca, S., & Rosenblatt, P. (2010). Does moving to better neighborhoods lead to better schooling opportunities? Parental school choice in an experimental housing voucher program. *The Teachers College Record*, *112*(5), 1443-1491.

DiPrete, T. A., & M. Gangl. (2004). Assessing bias in the estimation of causal effects: Rosenbaum bounds on matching estimators and instrumental variables estimation with imperfect instruments. *Sociological Methodology* 34 (1): 271–310.

Downey, D. B., von Hippel, P. T., & Broh, B. A. (2004). Are schools the great equalizer? Cognitive inequality during the summer months and the school year. *American Sociological Review*, 69(5), 613–635.

Duckworth, A. L., & Seligman, M. E. P. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science*, 16, 939-944.

Duncan, G. J., & Raudenbush, S. W. (1999). Assessing the effects of context in studies of child and youth development. *Educational Psychologist*, 34(1), 29-41.

Eberhart, E & Michel, S.J., (2012, June, 27). Summer learning loss doesn't have to happen. *The Baltimore Sun.*

Edin, K., & Lein, L. (1997). *Making ends meet: How single mothers survive welfare and low-wage work*. New York, NY: Russell Sage Foundation.

Edin, K., & Kefalas, M. (2005). *Promises I can keep.* Berkeley, CA: University of California.

Entwisle, D. R., & Alexander, K. L. (1996). Family type and children's growth in reading and math over the primary grades. *Journal of Marriage and the Family*, 58(2), 341-355.

Entiwsle, D, Alexander, K., & Olson, L. (1997). *Children, schools and inequality*. Boulder, CO.: Westview.

Epstein, J. L. (1987). Toward a theory of family-school connections: Teacher practices and parent involvement. In K. Hurrelman, F. Kaufmann, & F. Losel (Eds.), *Social intervention: Potential and constraints* (pp. 121-136). New York: DeGruyter.

Fairchild, R., Smink, J., & Stewart, A. B. (2009). *It's time for summer: An analysis of*

recent policy and funding opportunities. Baltimore, MD: National Summer Learning Association. Retrieved from: http://www.wallacefoundation.org/knowledge-center/summer-and-extended-learning-time/summer-learning/Documents/Its-Time-for-Summer.pdf

Farkas, G. (1996). *Human capital or cultural capital?: Ethnicity and poverty groups in an urban school district.* New York: Aldine de Gruyter.

Farkas, G. (2003). Cognitive skills and noncognitive traits and behaviors in stratification processes. *Annual Review of Sociology 29,* 541–562.

Farrington, C.A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T.S., Johnson, D.W., & Beechum, N.O. (2012). *Teaching adolescents to become learners. The role of noncognitive factors in shaping school performance: A critical literature review.* Chicago: University of Chicago Consortium on Chicago School Research.

Fomby, P., & Cherlin, A. J. (2007). Family instability and child well-being. *American Sociological Review*, *72:* 181 – 204.

Fomby, P., Mollborn, S. & Sennott, C. (2010). Race/ethnic differences in effects of family instability on adolescents' risk behavior. *Journal of Marriage and Family, 72(2)*: 234 – 253.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of educational research*, 74(1), 59–109.

Furstenberg, F. F., Belzer, A., Davis, C., Levine, J. A., Morrow, K., & Washington, M.

(1993). How families manage risk and opportunity in dangerous neighborhoods. In W. J. Wilson (Ed.), Sociology and the public agenda (pp. 231-258). Newbury Park, CA: Sage.

Furstenberg, F. F., Cook, T. D., Eccles, J., & Elder, G. H. (1999). *Managing to make it: Urban families and adolescent success.* Chicago, IL: University of Chicago Press.

Gasper, J., DeLuca, S., & Estacion, A. (2010). Coming and going: Explaining the effects of residential and school mobility on adolescent delinquency. *Social Science Research,* 39(3), 459–476.

Gershenson, S. (2013). Do summer time-use gaps vary by socioeconomic status?. *American Educational Research Journal,* 50(6). 1219-1248 .

Gershoff, E. T., Aber, J. L., Raver, C. C., & Lennon, M. C. (2007). Income is not enough: Incorporating material hardship into models of income associations with parenting and child development. *Child development*, *78*(1), 70-95.

Goffreda, C. T., & DiPerna, J. C. (2010). An empirical review of psychometric evidence for the dynamic indicators of basic early literacy skills. *School Psychology Review*, *39*(3), 463-483.

Good, R. H., & Kaminski, R. A. (2002). *Dynamic indicators of basic early literacy skills* (6th ed.).Eugene, OR: Institute for the Development of Educational Achievement.

Good, R. H., Kaminski, R. A., Shinn, M., Bratten, J., Shinn, M., Laimon, D., & Flindt, N. (2004). *Technical adequacy of DIBELS: Results of the Early Childhood Research Institute on measuring growth and development* (No. 7). Eugene, OR: University of Oregon.

Good, R. H., & Kaminski, R. A. (2011). *DIBELS next assessment manual*. Eugene, OR: Dynamic Measurement Group.

Green, E.L. (2012, ,March 16). City, school system partner to offer more summer options. *The Baltimore Sun*.

Haviland, A., Nagin, D. S., & Rosenbaum, P. R. (2007). Combining propensity score matching and group-based trajectory analysis in an observational study. *Psychological Methods,* 12(3), 247-267.

Helf, S., Konrad, M., & Algozzine, B. (2008). Recouping and rethinking the effects of summer vacation on reading achievement. *Journal of Research in Reading*, *31*(4), 420-428.

Henig, J. R. (1995). *Rethinking school choice: Limits of the market metaphor*. New Jersey: Princeton University Press.

Hernandez, D. J. (2012). Double jeopardy: How third-grade reading skills and poverty influence high school graduation. Baltimore, MD: The Annie E. Casey Foundation.

Heyns, B. (1978). *Summer learning and the effects of schooling*. New York: Academic Press.

Heyns, B. (1987). Schooling and cognitive development: Is there a season for learning?. *Child Development* 58(5), 1151-1160.

Hintze, J. M., Ryan, A. L., & Stoner, G. (2003). Concurrent validity and diagnostic accuracy of the Dynamic Indicators of Basic Early Literacy Skills and the Comprehensive Test of Phonological Processing. *School Psychology Review,* 32, 541–556.

Ho, D. E., Imai, K., King, G., & Stuart, E. A. (2007). Matching as nonparametric preprocessing for reducing model dependence in parametric causal inference. *Political analysis*, *15*(3), 199-236.

Jarrett, R. L., & Jefferson, S. R. (2003). " A good mother got to fight for her kids": Maternal management strategies in a high-risk, African-American neighborhood. *Journal of Children and Poverty*, *9*(1), 21-39.

Jarrett, R. L. (1997). African American family and parenting strategies in impoverished neighborhoods. *Qualitative Sociology*, *20*(2), 275–288.

Jarrett, R. L. (1999). Successful parenting in high-risk neighborhoods. *The Future of Children*, 9(2) 45-50.

Jennings, J. L., & DiPrete, T. A. (2010). Teacher effects on social and behavioral skills in early elementary school. *Sociology of Education*, 83(2), 135–159.

Johnson, O. (2012). Relocation programs, opportunities to learn, and the complications of conversion. *Review of Educational Research*, *82*(2), 131-178.

Kaushal, N., Magnuson, K., & Waldfogel, J. (2011). How is family income related to investments in children's learning. In R. Murnane & G. Duncan (Eds.), *Whither opportunity? Rising inequality and the uncertain life chances of low-income children* (pp. 187-206). New York, NY: Russell Sage Foundation

Keele, L. (2010). An overview of rbounds: An R package for Rosenbaum bounds sensitivity analysis with matched data. White Paper. Columbus, OH, 1-15. Retrieved from: http://www.personal.psu.edu/ljk20/rbounds%20vignette.pdf

Kim, J. S. (2006). Effects of a voluntary summer reading intervention on reading achievement: Results from a randomized field trial. *Educational Evaluation and Policy Analysis*, *28*(4), 335-355.

Kim, J. S., & White, T. G. (2008). Scaffolding voluntary summer reading for children in grades 3 to 5: An experimental study. *Scientific Studies of Reading*, *12*(1), 1 23.

Kim, J. S., & Quinn, D. M. (2013). The effects of summer reading on low-income children's literacy achievement from kindergarten to grade 8: A meta-analysis of classroom and home interventions. *Review of Educational Research*, 83(3), 386-431.

Kirk, D. S., & Sampson, R. J. (2013). Juvenile arrest and collateral educational damage in the transition to adulthood. *Sociology of Education*, *86*(1), 36-62.

Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health*, *74*(7), 262–273.

Lareau, A. (2002). Invisible inequality: Social class and childrearing in black families and white families. *American sociological review*, 67(5), 747-776.

Lareau, A. (2003). *Unequal childhoods: Class, race, and family life*. Berkeley: University of California Press.

Levin, H.R. (2009). An economic perspective on school choice. In M. Berends, M.G. Springer, D. Ballou & H.J. Walberg (Eds.), *Handbook of research on school choice* (pp. 19-34). New York: Routledge.

Liu, W., Kuramoto, S. J., & Stuart, E. A. (2013). An introduction to sensitivity analysis for unobserved confounding in nonexperimental prevention research. *Prevention science*, *14*(6), 570-580.

Luckner, A. E., & Pianta, R. C. (2011). Teacher–student interactions in fifth grade classrooms: Relations with children's peer behavior. *Journal of Applied Developmental Psychology*, *32*(5), 257-266.

McCaffrey, D. F., Ridgeway, G., & Morral, A. R. (2004). Propensity score estimation with boosted regression for evaluating causal effects in observational studies. *Psychological methods*, *9*(4), 403-425.

McCombs, Jennifer Sloan, Catherine H. Augustine, Heather L. Schwartz, Susan J. Bodilly, Brian McInnis, Dahlia S. Lichter and Amanda Brown Cross. Making summer count: How summer programs can boost children's learning. Santa Monica, CA: RAND Corporation, 2011. Retrieved from: http://www.rand.org/pubs/monographs/MG1120

McLoyd, V. C., Cauce, A. M., Takeuchi, D., & Wilson, L. (2000). Marital processes and parental socialization in families of color: A decade review of research. *Journal of Marriage and Family*, *62*(4), 1070-1093.

Meyers, M. K., & Jordan, L. P. (2006). Choice and accommodation in parental child care decisions. *Community Development*, *37*(2), 53-70.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: A sourcebook of new methods*. London: Sage publications.

Mistry, R. S., Vandewater, E. A., Huston, A. C., & McLoyd, V. C. (2002). Economic well- being and children's social adjustment: The role of family process in an ethnically diverse low- income sample. *Child development*,*73*(3), 935-951.

Morgan, S. L., & Winship, C. (2007). *Counterfactuals and causal inference: Methods and principles for social research*. Cambridge: Cambridge University Press.

Mullainathan, S., & Shafir, E. (2013). *Scarcity: Why having too little means so much*. New York: Times Books.

Murnane, R. J. (1975). *The impact of school resources on the learning of inner city children.* Cambridge, MA: Balinger Publishing Company.

National Summer Learning Association (NSLA). (2010). *A new vision for summer school.* Baltimore, MD: National Summer Learning Association. Retrieved from: http://www.edstrategies.net/files/2010_new_vision.pdf

National Summer Learning Association (NSLA). (2012). *A scan of summer learning opportunities in Baltimore.* Baltimore, MD: National Summer Learning Association. Retrieved from: http://c.ymcdn.com/sites/www.abagrantmakers.org/resource/resmgr/glr/nsla_summer_learning_opportu.pdf

National Summer Learning Association (NSLA). (2013). *Moving summer learning forward: A strategic roadmap for funding in tough times.* Baltimore, MD: National Summer Learning Association. Retrieved from: http://c.ymcdn.com/sites/www.summerlearning.org/resource/resmgr/mott_/3.12.13_nsla_moving_summer_l.pdf

Neild, R. C. (2005). Parent management of school choice in a large urban district. *Urban Education*, 40(3), 270-297.

Osborne, C., & McLanahan, S. (2007). Partnership instability and child well-being. *Journal of Marriage and Family*, 69(4): 1065 – 1083.

Patton, M. Q.. (1990). *Qualitative evaluation and research methods.* 2nd ed. Newbury Park, CA.: Sage Publications.

Patton, S.K., & Reschly, A. L. (2013). Using curriculum-based measurement to examine summer learning loss. *Psychology in the Schools*, *50*(7), 738-753.

Plank, S. B., & Condliffe, B. F. (2013). Pressures of the season An examination of classroom quality and high-stakes accountability. *American Educational Research Journal*, 50(5), 1152-1182.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods*. California: Sage Publications.

Ravitch, D. (2010). *The death and life of the great American school system.* New York: Basic Books.

Ready, D. D. (2010). Socioeconomic disadvantage, school attendance, and early cognitive development the differential effects of school exposure. *Sociology of Education*, *83*(4), 271-286.

Reardon, S.F. (2011). The widening socioeconomic status achievement gap: new evidence and possible explanations. In R. Murnane & G. Duncan (Eds.), *Whither opportunity? Rising inequality and the uncertain life chances of low-income children* (pp. 91-116). New York, NY: Russell Sage Foundation.

Rhodes, A. & DeLuca, S. (2014). Residential mobility and school choice among poor

families. *Choosing Homes, Choosing Schools*, Lareau, A. & Goyette, K. (Eds). New York, NY: Russell Sage Foundation.

Roehrig, A. D., Petscher, Y., Nettles, S. M., Hudson, R. F., & Torgesen, J. K. (2008). Accuracy of the DIBELS oral reading fluency measure for predicting third grade reading comprehension outcomes. *Journal of School Psychology*,*46*(3), 343-366.

Rosenbaum, P. R. (1999). Choice as an alternative to control in observational studies. *Statistical Science*, 259–278.

Rosenbaum, P. R. (2002). *Observational studies* (2nd ed.). New York: Springer.

Rosenbaum, P.R. (2005). Sensitivity analysis in observational studies. In *Encyclopedia of Statistics in Behavioral Science* (Eds: B.S. Everitt and D.C. Howell). Volume 4, pp. 1809-1814.

Rosenbaum, P. R., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika, 70(1*), 41–55.

Rosenbaum, P. R., & Rubin, D. B. (1984). Reducing bias in observational studies using subclassification on the propensity score. *Journal of the American Statistical Association*, *79*(387), 516–524.

Rothstein, R. (2004). *Class and schools: Using social, economic, and educational reform to close the black-white achievement gap*. New York: Teachers College Press.

Rubin, D. B. (2005). Causal inference using potential outcomes: Design, modeling, decisions. *Journal of the American Statistical Association*, *100*(469), 322–331.

Rubin, D. B. (2001). Using propensity scores to help design observational studies: application to the tobacco litigation. *Health Services and Outcomes Research Methodology*, *2*(3-4), 169-188.

Schacter, J., & Jo, B. (2005). Learning when school is not in session: A reading summer day- camp intervention to improve the achievement of exiting first- grade students who are economically disadvantaged. *Journal of Research in Reading*, *28*(2), 158–169.

Schilling, S. G., Carlisle, J. F., Scott, S. E., & Zeng, J. (2007). Are fluency measures accurate predictors of reading achievement? *Elementary School Journal,* 107, 429–448

Schneider, M., Teske, P., Marshall, M., & Roch, C. (1998). Shopping for schools: In the land of the blind, the one-eyed parent may be enough. *American Journal of Political Science*, 769-793.

Sénéchal, M., & LeFevre, J. A. (2002). Parental involvement in the development of children's reading skill: A five- year longitudinal study. *Child development*,*73*(2), 445-460.

Sénéchal, M., & Young, L. (2008). The effect of family literacy interventions on children's acquisition of reading from kindergarten to grade 3: A meta-analytic review. *Review of Educational Research*, *78*(4), 880-907..

Sharkey, P.T. (2010). The acute effect of local homicides on children's cognitive performance. *Proceedings of the National Academy of Sciences*, *107*(26), 11733–11738.

Sharkey, P. T., Tirado-Strayer, N., Papachristos, A. V., & Raver, C. C. (2012). The effect of local violence on children's attention and impulse control. *American Journal of Public Health*, *102*(12), 2287–2293.

Slates, S. L., Alexander, K. L., Entwisle, D. R., & Olson, L. S. (2012). Counteracting

summer slide: Social capital resources within socioeconomically disadvantaged families. *Journal of Education for Students Placed at Risk (JESPAR)*, 17(3), 16 185.

Small, M. L. (2004). *Villa Victoria: The transformation of social capital in a Boston barrio*. Chicago: University of Chicago Press.

Small, M. L. (2009). *Unanticipated gains: Origins of network inequality in everyday life.* New York: Oxford University Press.

Small, M. L. (2011). How to conduct a mixed methods study: Recent trends in a rapidly growing literature. *Annual Review of Sociology*, *37*, 57–86.

Small, M. L., & Feldman, J. (2012). Ethnographic evidence, heterogeneity, and neighbourhood effects after moving to opportunity. In *Neighbourhood effects research: New perspectives* (pp. 57-77). Netherlands: Springfield.

Steiner, P. M., Cook, T. D., Shadish, W. R., & Clark, M. H. (2010). The importance of covariate selection in controlling for selection bias in observational studies. *Psychological Methods*, *15*(3), 250-267.

Stone, C. A., & Tang, Y. (2013). Comparing propensity score methods in balancing covariates and recovering impact in small sample educational program evaluations. *Practical Assessment, Research & Evaluation*, *18*(13), 1-12.

Stuart, E. A. (2010). Matching methods for causal inference: A review and a look forward. *Statistical science: a review journal of the Institute of Mathematical Statistics*, *25*(1),1-21.

Swidler, A. (1986). *Culture in action: Symbols and strategies. American sociological review,51(2),* 273–286.

Taylor, S. J., & Bogdan, R. (1998). *Introduction to qualitative research methods: A guidebook and resource* (3rd ed.). New York: John Wiley & Sons.

von Drehle , D. (2010 , August 2). The case against summer vacation . *Time Magazine* , 176 (5), 36 – 42 .

Terzian, M., K. A. Moore,& K. Hamilton. (2009) Effective and promising summer learning programs and approaches for economically-disadvantaged children and youth: A white paper for the Wallace foundation. Washington, DC: Child Trends.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.

Wilson, H. K., Pianta, R. C., & Stuhlman, M. (2007). Typical classroom experiences in first grade: The role of classroom climate and functional risk in the development of social competencies. *The Elementary School Journal*,*108*(2), 81-96.

Wu, L. and Martinson, B.C. (1993). Family structure and the risk of a premarital birth. *American Sociological Review,* 58(2), 210-232.

Wu, L. (1996). Effects of family instability, income, and income instability on the risk of a premarital birth. *American Sociological Review*, 61(3), 386-406.

Zvoch, K. (2009). A longitudinal examination of the academic year and summer learning rates of full- and half-day kindergartners. *Journal of Education for Students Placed at Risk (JESPAR)*, *14*(4), 311–333.

Zvoch, K., & Stevens, J. J. (2012). Summer school effects in a randomized field trial. *Early Childhood Research Quarterly*.

APPENDIX A: RESEARCH DESIGN AND METHODOLOGY

This appendix includes the supplemental materials described in Chapter Three, which details my research design and methodology. Table A.1 lists the variables included in the propensity score model for the quantitative analysis. Next, I provide a copy of the interview protocol that guided the semi-structured interviews. Finally, I provide a copy of the codebook that guided the qualitative analysis.

Table A.1
Variables used for propensity score model

Concept	Variable description
Student and family characteristics: Together these variables measure a family's social, economic and cultural resources, which have all been shown to influence summer activity participation and summer learning (Burkham et al., 2004; Entwisle et al. 1997; Heyns, 1978).	**African American:** A binary variable indicating that the student is African American.
	Low-income: Family qualified for Free or Reduced Priced meals in the 2011-2012 school year
	Grade level: Variable indicating a student's grade level in the 2011-2012 school year.
	Student attendance rate: # of days student attended school in 2011-2012 school year divided by the total number of days that the student was on roll at City Schools.
	Summer 2011 school transfer: Indicator that a student transferred schools during the summer of 2011
	Mid-year school transfer: Indicator that a student made one or more mid-year school transfers during the 2011-2012 academic year
	Enrollment in summer school during the summer of 2011: Variable indicating that a student enrolled in summer school in the summer of 2011 and attended more than 50% of the time
	LEP: Variable indicating that student was eligible for Limited English Proficiency status services in the 2011-2012 school-year
	Pre-K: Student attended a center-based Pre-Kindergarten program.
Student prior achievement and behavior: Students' skill level influenced whether or not they were encouraged to attend summer school programming. Additionally, Downey et al. (2004) found that student achievement levels were associated with summer learning.	**State standardized test scores:** Students' percentile rank on the Stanford-10 math and literacy assessments administered in the spring of 2012
	Benchmark reading assessment score DIBELS score on the literacy benchmark assessments administered in the winter and spring of 2012.
	Summer 2011 gain score. Standardized DIBELS gain score between the end of the 2010-2011 school year and the beginning of the 2011-2012 school-year
	Suspension: Indicator that the student was suspended 1 or more times during the 2011-2012 school year
School and neighborhood characteristics: I consider school characteristics as proxies for students' neighborhood	**School mean attendance rate:** The mean attendance rate for a school's student body (2011-2012)
	School proportion African American: The proportion of a school's student body that is African American (2011-2012)
	School proportion low-income The proportion of a school's student body that qualifies for the National School Lunch Program (2011-2012).

characteristics since all students in the study sample were attending a neighborhood school. Neighborhood advantage has been shown to influence students' summer learning (Entwisle et al., 1997; Benson & Borman, 2010) and out-of-school time activity participation (Bennett et al., 2012; Furstenberg et al. 1999).	**School host site.** School was serving as a host site for a summer reading academy during the summer of 2012
	CSA proportion African American: The proportion of a school's CSA's that was African American in 2010
	CSA median household income: The 2010 median household income of a schools' CSA
	CSA violent crime: The 2010 violent crime rate of a school's CSA.

Interview Protocol

Module 1: Background and family-life

- To start us off, I'd like to ask you to tell me the story of your life.
    - Where were you born?
    - Probe for family history
    - Probe for educational history
    - Probe for employment history
    - How long have you lived in this house? Where did you live before?
    - Who stays with you in this house?
        - Everyone over the past year
- Since this study is about students who were in first grade last year, during this interview I am mostly going to ask you questions about [selected pseudonym of first grade student]. Before we get started with those questions. Can you tell me a little bit about your other children?
    - Probe for ages and schooling history
    - Probe for the summer activities of those children.
- Great, let's move on to focus just on [pseudonym of sample child]. Tell me a little bit about him/her?
    - Favorite activities/least favorite activities
    - What's your child's favorite/best subject?
    - How does your child feel about reading?
    - How often does he/she read at home?
    - Tell me about the last time you saw your child reading?
    - Do you ever have the chance to read with your child?
    - Is there a local library near your house? Tell me about your child's last visit to the library.
    - Tell me about the last time that your child got into trouble at school.
    - Some parents tell us that children have other adults in their life that they look up to aside from their parent. Does [name of sampled child] have any other adults that they look up to?
- Walk me through a typical day in your household during the summer [walk through last Thursday]
    - Start with when [name of child] wakes up and take me through bed time
    - In a typical summer day, how much time does your child watch TV or play video games?
    - How does bed time work during the summer?
    - Who watches your child when you are out/working during the summer?
    - Does your child play with friends over the summer?
        - Are these school friends or friends from someplace else?
        - Are these the same friends that they play with during the school-year?
        - What do the children do together?
        - What do you think of these friends?
        - Do you know their parents?

Module 2: Summer Program Experience:

- Is your child enrolled in a summer learning program or camp?

Parents of enrolled children:

- Why did you decide to enroll your child in [*name of activity]* this summer?
  - How did you find out about it?
  - Were you considering any other programs? If so, what made you choose [*name]?*
  - What did your child do during the summer of 2012?
- Tell me more about [*name of activity]*.
  - Probe for hours and program structure
  - What do you and your child like about it?
  - What is your child learning?
  - What part of the program do you think is best?
  - When your child wakes up in the morning, do they want to go to [*name of activity]?*
  - Tell me about the last time your child was absent from [*name of activity]*. How often does this happen?
  - What do you think could be improved for next year?
  - Would you send your child to this program next summer?
  - What would you do to improve the program?
  - What is your least favorite aspect of this program?
  - Tell me about the last time you visited the program or spoke to a staff person.
  - What does your child do when he/she gets home from [*name of activity]*?
- What will your child do when the program ends?

Parents of children who are not enrolled in a program:

- Do you know of any summer programs?
- How did you find out about these programs?
- Did the school inform you of any opportunities?
- Has your child attended a program in the past?

Module 3: School-year experiences and school quality

- I know that [pseudonym of sampled child] was in 1st grade last year. When did he/she start attending school?
  - How did you select this school? Did you have any choice about where to send your child to school?
  - Did he/she attend a pre-K program? Where? How did you find out about it?
- Tell me about this school**.**
  - What do you like most about it?
  - What do you like the least?
  - If you could change one thing about this school, what would it be?
  - What makes a good school?
- How does your child feel about their school?
- What other adults does your child interact with at school?
- Does your child receive any special services at school?
  - Is he/she receiving these services over the summer?

- We hear from some parents that some schools like a lot of parental involvement but others don't want too much. What's it like here?
    - How does the school usually communicate with you?
    - Tell me about the last time you interacted with your child's teacher? What about other adults in this school?
- Walk me through a typical day for your child during the school year?
    - Wake up time to arrival at school
    - What time and how does he/she get home?
    - Probe for routines around homework, free time and bed time

Module 4: Neighborhood

- What's the neighborhood like around here?
    - What do people call this neighborhood?
    - How long have your lived here?
    - What are the people like? (Friendly/keep to themselves?)
    - How safe do you feel? Tell me about a time in the last six months when you felt unsafe.
    - Do children play outside?
        - Where do they play outside?
        - Are there any rules about where they are allowed to go?
        - Is this the type of neighborhood where people look out for each other's children?
    - How do you think living here affects your child?
        - What is the best part about living in this neighborhood?
        - What could be better?
- What activities are available to children in this neighborhood after school?
- Some people tell me that neighborhoods change over the summer. Others tell me that the neighborhood always stays that same. What do you think?
    - More or less safe?
    - What activities are available to children in this neighborhood during the summer?
        - Ask about park, pools, recreation center and libraries
        - Do your children participate? If so, how often do they attend? If not, why not?

Module 5: General perceptions of the summer.

- Some teachers say that children lose reading skills over the summer. Do you think this is true?
    - Why do you think this might happen for some children?
    - Do you think this will happen for your child?

- If money were no object, how would your child spend their summer?

Module 6: Worries and expectations

- We are about to wrap up here, but before we go I'd like to talk a little bit about the future.

- What do you worry about for your child as he/she gets older?

- What are your dreams for your child?
  - Where you do expect your child to be twelve years from now?

Codebook

This codebook was developed after conducting all of the interviews (n=24) and reading the complete transcripts of 50% of them. After the full codebook was developed, I re-coded all 24 interviews.

Note that "child" always refers to the focal child (first grade student)

Codes for Text Segments: Apply these codes to text segments using Atlas T.I. Text segments can and should be double-coded when more than one code applies.

In-Home Activities (applies to summer and school-year).

- H_Act_Par: In home learning-related activities (i.e. reading, parent tutoring or educational computer games) that are initiated by the primary caregiver (PCG)
- H_Act_Oth: In home learning related activities that are initiated by other caregiver or sibling
- H_Act_Chi: In home learning related activities initiated by the child
- H_Act_Sch: In home learning related activities that are facilitated by the school in some way
    - EX). Homework or summer packets
    - This may be double coded with H_Act_Par if parent works on the activity with the child.

Routine:

- Rout_Sum: Description of child's summer routine.
- Rout_Sch: Description of child's school-year routine

Primary Caregiver Background

- PCG_Famhist: Family history of primary caregiver (PCG)
- PCG_Edu: PCG experiences in school and level of educational attainment.
- PCG_Job: Anything about PCG's employment including where she works, how she feels about work, how she find jobs, discussions of unemployment, and discussion of how work affects life and parenting.
- PCG_mhealth: Any direct or indirect discussion of PCG's mental health

School

- SCH_qual
    - SCH_qual_neg
        - Perceived negative qualities of school
    - SCH_qual_pos
        - Percieved positive qualities of school
- SCH_Bully
    - Discussion of child's experience with bullying at school and/or general discussion of bullying at school
- SCH_Choice

    - Any discussion of how child ended up attending his/her school. This code is attempting to capture the process of selection into the child's school.
- SCH_Par
    - Any discussion of parental involvement in school (for whatever reason). This code should capture the PCG's involvement in school and how the school tries to facilitate parental involvement more generally.
- SCH_Retain
    - Any discussion of child being retained.
- SCH_charter
    - Any discussion of charter schools (will always be double coded with school choice)

Pre-k and Early Ed

- PreK: Any discussion of pre-K or head start. This includes description of the child's involvement in these programs and perceptions of their quality.
- PreK_Choice: Any discussion of how PCG found PreK or Head Start program

Extracurricular and afterschool

- Extra: Any discussion of afterschool or extracurricular activities. This includes description of the child's involvement in these programs and perceptions of their quality.
- Extra_choice: Any discussion of how parent found the child's afterschool program

Attendance:

- Att: any discussion of childss school-year or summer attendance patterns.

Family

- Fam_KinCare: Any discussion of child being cared for by kin
- Fam_KinCare_Sum: Any discussion of kin care over the summer
- Fam_StrucInst: Any discussion of family structure and family structure change (instability). This includes positive and negative discussions of father's involvement for the 21 mothers in the sample and discussions of mother's involvement for the 3 caregivers who were not the child's biological mother.

Residential/Mobility history

- Res_hist: Discussion of PCG's residential history when it is relevant to focal child.
- Res_choice: Discussion of how PCG has made choices about where to live
- Res_Inst: Discussion of insecurity in housing and/or homelessness

Housing Roster:

- House_roster: Description of who currently lives in the house

Making Ends Meat

- MEM: Discussion of how PCG "makes ends meet". This includes discussion of budgeting/bills, informal strategies for getting money and use of social services.
- MEM_Stress: Any discussion of stress-induced from making ends meeting

Focal Child

- FC_Aca: Discussion of child's academic strengths/weaknesses
- FC_Behavior: Discussion of child's behavioral and/or emotional trouble at home or at school. Or lack thereof.
- FC_Exp: PCG's expectations for child
- FC_Worry: PCG's worries about child
- FC_Mont: PCG's monitoring of child(or lack thereof)
- FC_PCG-Rel: Closeness of parent child relationships (positive or negative)

Summer:

- Sum_Act: Any discussion of summer activities that are not Read to Succeed (RTS) and/or summer activities for other children. These activities also include "in home learning activities." In the case of in-home summer learning activities, they should be double coded as such.
- Sum_RTS: Any discussion of RTS including description and comments on quality.
- Sum_Theories: PCG's theories about summer learning loss
- Sum_Trip: Summer trips
- Sum_read: Any discussion of summer reading
- Sum_food: Any discussion of food in the summer
- Sum_money: Discussion of family resources in summer
- Sum_Want: Description of what parents want for their child over the summer
- Sum_Past: Description of what summers used to be like for parents or other kids
- Sum_Choice: Discussion of how parents made choices about summer activities
- Sum_Choice_Info: Discussion of information parents had about summer activities/summer programs
- Sum_FUN: Discussion of purely recreational activities in the summer and/or general talk about fun in the summer
- Sum_Break: Discussion of needing a break in the summer

Neighborhood

- NB_Qual: Any discussion of neighborhood quality
    - NB_qual_neg: negative neighborhood qualities
    - NB_qual_pos: positive neighborhood qualities
- NB_Safe: Discussion of neighborhood safety
- NB_Act: Discussion of neighborhood formal organizations (or absence of)
- NB_FC: Discussion of child's interaction in neighborhood and neighborhood's effect on children
- NB_socnet: Discussion of parent's social network in the neighborhood
- Nb_iso: Any indication of isolation from neighborhood
- NB_connect: Any indication of connection to neighborhood
- NB_Theor: Any discussion of PCG's theories about neighborhood quality and how neighborhoods affect children.

Accountabiltiy

- Account_Par: Indication that PCG holds him/herself accountable for student learning

- Account_Chi: Indication that parent holds child accountable for student learning
- Account_Sch: Indication that parent holds school accountable for student learning

Tags to assign to all cases: All cases need to be tagged in Atlas (highlight and code the entire interview) for each category. A case can only receive one tag within each category.

- **Education**
  - Tag_pcg_edu_drop: PCG dropped out of high school
  - Tag_pcg_edu_GED: PCG earned a GED
  - Tag_pcg_edu_HSGrad: PCG earned HS diploma
  - Tag_pcg_edu_train: PCG pursued some additional training or completed some college
  - Tag_pcg_edu_ColGrad: PCG graduated from college
- **PCG Gender**
  - Tag_pcg_female: PCG is female
  - Tag_pcg_male: PCG is male
- **FC Gender**
  - Tag_fc_female: FC is female
  - Tag_FC_male: FC is male
- **Relationship**
  - Tag_pcg_mother: PCG is mother
  - Tag_pcg_other: PCG is other
- **Structure**
  - Tag_father: Father of FC is married or cohabitating with PCG
  - Tag_Sfather: PCG is married or cohabitating with another man(not father of PCG)
  - Tag_single: PCG is not married or cohabitating
- **Employment**
  - Tag_full-time: PCG is employed full-time
  - Tag_TCA: PCG is employed through a work program (TCA)
  - Tag_part-time: PCG works part-time
  - Tag_unemployed: PCG is unemployed
- **Summer Activity**
  - Tag_RTS: Participated in RTS during summer of 2013
  - Tag_Other_Act: Participated in another out-of-home formal summer program lasting at least one week
  - Tag_No_Act: Not participating in a formal summer activity
- **School**
  - Tag_SchC: FC attended Cedar Elementary during the 2012-2013 school year
  - Tag-SchS: FC attended Springfield Elementary during the 2012-2013 school

BARBARA FALK CONDLIFFE

bcondli1@jhu.edu

Date of Birth: June 6, 1982 ♦Place of Birth: New York, NY

Education

Johns Hopkins University, Baltimore MD
Ph.D. in Sociology expected, 12/2014; M.A. in Sociology,08/2011. Awarded a five-year full-tuition Institute of Education Sciences (IES) Predoctoral Fellowship from the U.S. Department of Education. Received George Peabody Scholarship for Education (2012), awarded for excellent work in the Sociology of Education.

- Dissertation: "Summer Learning In the City: How Schools, Families, and Neighborhoods Influence Urban Elementary School Students' Opportunities and Achievements"

Brooklyn College, New York, NY
New York City Teaching Fellows Program
M.A. in English & Education, 06/2007

Bowdoin College, Brunswick, ME
B.A. in English and Women's Studies, *Phi Beta Kappa*, *Magna Cum Laude*, 06/2004. Received Lucien Howe Prize, awarded to the member of the senior class who, as an undergraduate, showed the "highest qualities of conduct and character."

Research Experience

Baltimore Education Research Consortium (BERC), Baltimore, MD
Researcher, 08/2010-06/2014

- Designed and managed a mixed methods study of summer learning in Baltimore City
- Used quasi-experimental techniques and multi-level modeling to investigate the effects of policies and programs on student achievement
- Conducted classroom observations as a certified observer using the University of Virginia's Classroom Assessment Scoring System (CLASS)
- Report findings at national conferences and to senior school district officials

National Summer Learning Association (NSLA), Baltimore, MD
Consultant, 10/2011-2/2012

- Managed the research and writing of NSLA's Baltimore City Summer Learning Opportunity Scan

Summer Research Intern, 06/2010-09/2010

- Conducted site visits of summer learning programs in Newark, NJ and Ithaca, NY to assess program effectiveness and make recommendations for improvement

Johns Hopkins University Department of Sociology, Baltimore, MD
Graduate Research Assistant to Dr. Stefanie DeLuca, 09/2009-08/2012

- Conducted and analyzed semi-structured interviews with low-income mothers and their children in Baltimore, Maryland and in Mobile, Alabama
- Analyzed the Moving to Opportunity (MTO) interim impacts survey data
- Reported findings at national conferences

Children's Defense Fund (CDF), Washington, DC
Program Assistant, 06/2004-06/2005

- Researched and reported on issues relating to child welfare and mental health

Peer-Reviewed Publications

Condliffe, Barbara, Melody Boyd and Stefanie DeLuca. (Forthcoming)."Stuck in School: How Social Context Shapes School Choice for Inner City Students." *Teachers College Record.*

Plank, Stephen and Barbara Condliffe. (2013). "Pressures of the Season: An Examination of Classroom Quality and High-Stakes Accountability." *American Education Research Journal* 50(5), 1152-1182.

Other Publications and Reports

Plank, Stephen and Barbara Condliffe. (2011). "Pressures of the Season: A Descriptive Look at Classroom Quality in 23 Baltimore Elementary Classes." Baltimore Education Research Consortium(BERC).
http://baltimore-berc.org/pdfs/ClassroomQuality2nd&3rdGrade.pdf

Condliffe, Barbara. (2009)."Mastery or Progress? The Standardized Testing Debate Comes to the Classroom." Teachers Network Leadership Institute.
http://teachersnetwork.org/tnli/cases/pdf/Condliffe2009_case.pdf

Selected Presentations (*signifies that I was the presenter)

Condliffe, Barbara. *"What Does It Take to Curb Summer Learning Loss Among Elementary School Children?" Paper presented at the American Education Research Association (AERA). Philadelphia, PA, April 2014.

Condliffe, Barbara. * "Selection Effects in the Summer Time: Families, Schools, Neighborhoods and Summer Program Participation." Paper presented at the Eastern Sociological Society (ESS). Baltimore, MD, February 2014.

Condliffe, Barbara*, Siri Warkentien and Stefanie DeLuca. "Shaken Up? When and Why Family Instability Can Be A Good Thing For Children." Paper presented at the Annual Meeting of the American Sociological Association (ASA). New York, NY, August, 2013.

Warkentien, Siri, Barbara Condliffe and Stefanie DeLuca. "Measuring Family Complexity in Low-Income African American Families." Paper presented at the Annual Meeting of the American Sociological Association (ASA). New York, NY, August, 2013.

Condliffe, Barbara*, Melody Body & Stefanie DeLuca. "Stuck in School: How School Choice Policies Interact With Social Context to Shape Inner City Students' Educational Careers." Paper presented at the annual meeting of the Association for Public Policy Analysis and Management (APPAM). Baltimore, MD, November 2012.

Condliffe, Barbara.* "Moving Forward Together or Drifting Further Apart: High Stakes Accountability and Educational Inequality." Paper presented at the annual meeting of the American Sociological Association (ASA). Denver, CO, August 2012.

Jennings, Jennifer, Barbara Condliffe, and Danel Koretz. "The Bad Apple Fallacy: Understanding Routine Misconduct in Public Schools." Paper Presented at a special session of the annual meeting of the American Sociological Association (ASA). Denver, CO, August 2012.

Plank, Stephen and Barbara Condliffe.*"Pressures of the Season: A Descriptive Look at Classroom Quality in Second and Third Grade Classrooms." Paper presented at the Annual Meeting of the Association of Public Policy Analysis and Management (APPAM). Washington, D.C., November 2011.

Durham, Rachel, Barbara Condliffe, and Stephen Plank. "When Less Is More: High Stakes Accountability & The Institutional Myth of Data Driven Decision Making." Paper presented at the annual meeting of the American Sociological Association (ASA). Las Vegas, NV, August 2011.

DeLuca, Stefanie, Barbara Condliffe, and Siri Warkentien."Shaken Up: Family, Residential and School Instability Among Poor Youth." Paper presented at the Population Association of America (PAA). Washington, D.C., April 2011.

Teaching Experience

Johns Hopkins University Intersession Program, Baltimore, MD
Instructor, January 2012

- Designed and taught a new sociology of education course, "Mind the Gap: The Causes & Consequences of the Academic Achievement Gap," for the JHU Intersession program

School for Democracy and Leadership, Brooklyn, NY
English Teacher(NYC Teaching Fellows), 09/2005-06/2009

- Designed and implemented middle school and high school English curricula for a high-needs student population

11th Grade Team Leader, 01/2007-05/2009

- Led 11th grade teachers in addressing the academic and social needs of students
- Designed 11th grade advisory program

ELA Department Chair, 09/2007-06/2009

- Designed and facilitated department professional development sessions
- Wrote school-wide ELA scope and sequence for grades 6-12
- Mentored struggling ELA teachers through co-planning, inter-visitation, and debriefing
- Analyzed high school reading assessments to evaluate the effectiveness of departmental instructional practices

New York City Teaching Fellows, New York, NY
Fellow Advisor, 06/2008-08/2008

- Instructed 30 new teachers on the fundamentals of teaching in a high-needs urban classroom

Professional Affiliations

The Society for Research on Educational Effectiveness (SREE), The American Sociological Association (ASA), and The American Education Research Association (AERA)

Skills

Proficient in the use of multiple statistical packages including STATA and R and in the use of qualitative analysis software including Atlas T.I.