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PARENT INVOLVEMENT, SCHOOL READINESS, AND SOCIOECONOMIC STATUS

A Thesis in

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ABSTRACT

Understanding interactions between families and schools is crucial to understanding education. Prior research indicates that socioeconomic inequality unevenly distributes educational resources like family involvement to students, advantaging those who have access to the type of involvement valued by schools. Using the ECLS-K dataset, I examine the interactions of family involvement, school readiness, and socioeconomic status. I hypothesize that parent involvement would increase students' school readiness as a mediating factor between socioeconomic status and school readiness, using parent book-reading as an indicator of involvement and various income and education-related variables to approximate socioeconomic status. Through analyzing descriptive statistics, analysis of variance, and regression models, I find no significant evidence that parent involvement increases school readiness, and I find limited support for the hypothesis that socioeconomic status connects to higher school readiness, in terms of some income and parent education measures. Further investigation is needed to unravel the complex interactions between families, school, and inequality.

TABLE OF CONTENTS

LIST OF TABLES	v
ACKNOWLEDGEMENTS.....	vi
INTRODUCTION.....	1
LITERATURE REVIEW.....	2
HYPOTHESES.....	10
METHODS.....	10
RESULTS.....	12
DISCUSSION.....	20
CONCLUSION.....	25
REFERENCES.....	26

LIST OF TABLES

Table 1. Descriptive Statistics	13
Table 2. ANOVA of Approaches to Learning by Parent Book-Reading	14
Table 3. OLS Regression Analysis of Approaches to Learning	16
Table 4. OLS Regression Analysis of Parent Book-Reading	18

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INTRODUCTION

Family involvement in education shapes children's experiences of schooling. Parents may help with homework, read to their children, participate in school events, or engage in other activities that support their children's academic preparation and development. Prior research has shown that trends towards parental involvement in children's schooling and attention to early childhood development have increased over the last half-century (Schaub 2010). However, little is known about whether these trends have continued into recent years or the potential impacts of changes in parental involvement on children's school readiness.

Understanding how education works is critical for examining society. Although education has expanded over the past century, schooling may have disparate impacts on students as a result of their family's involvement. While some scholars maintain that education as an institution is an avenue to social mobility, others argue that the school system perpetuates inequality by ensuring social reproduction through inequality in access to educational resources. Likewise, the particular role and influence of parent involvement, and the definition of school readiness are contested, as some studies suggest that school readiness has a weak predictive value for educational attainment and achievement, and that parental involvement as defined by schools and researchers privileges members of the dominant culture (i.e. white, middle-class, English-speaking families). These disputes provide a crucial context for the examination of factors contributing to educational resource and outcome disparities, including parental educational involvement and children's school readiness. Evaluating the relationship between parental involvement and school readiness can help to examine the complicated interactions between education and social inequality.

This paper will analyze associations between parental behaviors relating to educational involvement (e.g., parents telling stories, singing songs, talking about nature with their child) and children's behaviors indicating school readiness (e.g., self-regulation, social-emotional skills, eagerness to learn). In addition, the study will control for factors that may be linked to parent involvement, such as socioeconomic status. Socioeconomic inequality contributes to the uneven distribution of educational resources. If parental involvement in school-related activities supports students' school readiness prior to school enrollment, students with unequal access to the resource of parental involvement may have different educational outcomes over time. This suggests that disparate levels of parental involvement in schooling may contribute to educational inequality and social inequality overall, making this a critical area of inquiry.

How does parental involvement affect students' school readiness?

LITERATURE REVIEW

School Readiness

School readiness traditionally refers to children's early educational adjustment to schooling. School readiness can involve elements of both developmental readiness to learn educational material and readiness to be successful within the school and classroom environment (Carlton and Winsler 1999). This is often studied in terms of socioemotional skills (Jeon et al. 2020; Ricciardi et al. 2021), cognitive and language skills (Ricciardi et al. 2021) as well as early literacy and numeracy skills (Jeon et al. 2020). Policy shifts in the late 20th century emphasized the concept of school readiness attracting the attention of practitioners, researchers, and parents (Fernández and López 2017; Schaub 2010). Some have critiqued the implicit label of "unreadiness" imposed upon children by rigid school standards (Carlton and Winsler 1999), and

other findings suggest that schools' institutional role in assigning value to school readiness skills and behaviors may play a role in determining which children are considered school-ready, since preschool teachers' expressed behavioral concerns about children were associated with increased chances of elementary school suspension (Ricciardi et al. 2021). While scholars remain divided on precisely which metrics ought to be included in conceptualizing school readiness and the extent of its utility in predicting later academic outcomes, school readiness scores at age four have been found to be strongly associated with fourth grade GPA, standardized test scores, school retention, and decreased likelihood of suspension (Ricciardi et al. 2021). Although the definition of school readiness among prior work may vary, this study will focus on school readiness in terms of children's academically related behaviors prior to kindergarten, as measured in the ECLS-K data as social skills, "problem behaviors," and approaches toward learning, particularly by examining the "approaches toward learning" metric.

Parental Involvement Practices

In searching for explanations for the disparities in school readiness and early childhood educational achievement, researchers turn to parents' academic socialization and involvement practices. Understanding the role that parental involvement plays in children's education and in inequalities of educational opportunities and outcomes is crucial to examining the role of schools in attenuating or reproducing inequality. In defining parent involvement activities, scholars typically cite practices including school volunteering, home content-based enrichment, teacher communication, and helping with homework (Anderson and Minke 2007; Goodall and Montgomery 2014; Love et al. 2021) for school-aged children, and for early childhood, practices like reading to children, arts and crafts, and teaching letters, numbers, or words (Schaub 2010).

Epstein (1987) enumerates four types of parent involvement, including basic obligations (e.g., provide food, clothing, and shelter), school-to-home communications (e.g., inform parents about school events), parent involvement at the school (e.g., assist with class parties or in the school cafeteria), learning activities at home (e.g., contributing to enrichment education) (Epstein 1987). Critics of this typology suggest that while it may not have intended to be exhaustive or prescriptive, its use in policy and practice has constrained the ways that researchers, policymakers, and practitioners have conceptualized parental involvement, reinforcing educational inequities that diminish the contributions of marginalized parents and reify dominant white middle-class norms (Fernández and López 2017; Lareau 1989; Love et al. 2021; Sui-Chu et al. 1996). Therefore, some propose decentering standards of parental involvement that focus on parents' role in helping the teacher, suggesting instead that policymakers and school leaders prioritize parent engagement with learning, uplifting the exchange of knowledge between home and school and supporting students' learning more broadly defined with enrichment activities (Goodall and Montgomery 2014).

Influences on Parent Involvement

Some studies suggest that factors including parental beliefs about education (Elliott and Bachman 2018, Englund et al. 2004), parents' perceptions of explicit teacher invitations (Anderson and Minke 2007), parents' knowledge of child development (Sonnenschein and Sun 2017), and parents' expectations for children (Englund et al. 2004), influence parental involvement practices as well. Parent involvement has been measured as spanning a variety of different activities occurring in homes, schools, and communities, through both teacher reports (Anderson and Minke 2007; Barnard 2004) and parent self-reports (Barnard 2004). When

controlling for socio-emotional maturity and cognitive ability, teacher approximations of parental involvement in elementary school are positively associated with high school academic attainment, suggesting that these early parent interventions may improve students' long-term academic outcomes (Barnard 2004).

Critical Perspectives

A variety of factors determine parents' ability to effectively support children's schooling, and schools further influence which parental school involvement-related behaviors are legitimized and rewarded and which forms of parent interaction with children and schools are sanctioned or disparaged. Although some research assumes that parent involvement is lower among low-income families, Black families, and Latinx families, other research finds that Black families had higher levels of parental involvement than white families for all measures except for school participation, for which involvement levels were comparable, and that Hispanic and Asian families had higher levels of home supervision than white families (Sui-Chu et al. 1996). The school's assignment of appropriate "school-ready" behaviors is culturally determined, and these attitudes tend to advantage students from dominant backgrounds, that is, white, upper- and middle-class, and English-speaking families (Love et al. 2021). For example, even Goodall and Montgomery's (2014) framework for parental involvement and engagement, designed to challenge traditional assumptions about parent involvement, offers examples of high-agency parent "engagement" activities including paying for music lessons and sports club memberships, representing efforts at "concerted cultivation," through which middle-class parents intentionally manage children's leisure activities to enrich their education (Lareau 2003). Working-class families' commitments to supporting students' learning by ensuring that their housing, food,

care, and other needs are met and accomplishing “natural growth” (Lareau 2003) may not be afforded the same institutional validation and approval by the school as middle-class families expenditure of additional resources to advantage students with extracurricular activities or simply exposure to middle class cultural norms.

The nature of parent involvement within schools and the forms that involvement takes within the contexts of different families may vary by race and socioeconomic background. Schools that prioritize adherence to the cultural norms in white middle-class America may censure parents who take part in certain forms of parent involvement. Lareau (1989) proposes a cultural capital approach to analyzing disparate family-school interactions, in which schools, as middle-class institutions, privilege children from middle-class backgrounds raised in middle-class environments that allow them to comfortably adapt to the class-based expectations and activities of the school. Applying this cultural capital perspective suggests that educational institutions may perpetuate social inequality by differentially responding to the involvement practices of parents of various backgrounds as they navigate these different classed and racialized structures (Lareau 1989). Indeed, one case study of parent involvement found that a school discouraged Latinx family involvement in their children’s schooling through advocacy, supporting the argument that one of the reasons that many studies claim that marginalized families are “less” involved in children’s schooling is because diverse forms of parental involvement in education are not equally valued or examined by schools or researchers (Fernández and López 2017).

Teacher Perceptions of Parent Involvement

However, the teacher's perception of parents' level of involvement in schooling may also influence academic outcomes. In fact, in an ethnographic study of two elementary schools, Lareau (1989) found that a student whose mother was perceived by the classroom teacher to be highly involved in his education was given additional enrichment work to help him excel in class, while a high-achieving student whose mother was perceived to be unconcerned with her child's education was not given additional supports to excel which the teacher later admitted she might have deserved (Lareau 1989). One critique of teacher-reported parental involvement scores is that these may not comprehensively capture the full range of activities in which parents participate to support children's learning, such as enrichment that occurs exclusively within the home environment or in the home community, but merely record parent-school interactions, which can be problematic as at-home parent involvement may have a significant impact on students' academic outcomes (Anderson and Minke 2007). For example, at-home parental involvement activities, including parents discussing school-related content with children or developing school-related plans, had a stronger relationship than other types of involvement on students' academic achievement (Sui-Chu et al. 1996).

An advantage of the current study is that, through the ECLS-K data, parental involvement is measured by respondent self-reports based on a variety of behaviors, rather than relying on potentially limited teacher perceptions of involvement, which may capture a more comprehensive picture of home-based parent involvement than prior work. Previous research has used composite scores of average participation in parent enrichment practices to find approximate levels of parent involvement (Elliott and Bachman 2018), which the present study

will replicate through creating scales of parent behaviors relating to academic activities in the home and child behaviors relating to school readiness within the ECLS-K data.

School Readiness and Parental Involvement

The hypothesized relationship between parental involvement and school readiness is debated within the literature, as is the mechanism by which these factors interact with one another. Parents' knowledge of child development (as measured by the Knowledge of Infant Development Inventory scores) may be related to at-home parental involvement in terms of literacy enrichment activities, which may be related to school readiness in terms of kindergarten reading and math skills (Sonnenschein and Sun 2017). In addition, children of parents who believe in highly valuing school readiness may have higher kindergarten achievement scores (Puccioni 2015). While some research suggests that parent involvement through school volunteering had only a minimal impact on reading skills and an insignificant impact on math skills (Sui-Chu et al. 1996), other studies show that parent involvement within the school may improve early academic achievement in literacy, although it has little impact on children's school readiness skills overall (Jeon et al., 2020). Although a variety of studies examine parental involvement within the context of the school (e.g., parent attendance at school conferences and open houses, parent volunteering in the classroom), other studies suggest that at-home parent involvement in education (e.g., reading to children, helping with homework) may have a more important impact on children's learning and academic readiness (Anderson and Minke 2007; Epstein 1987; Jeon et al. 2020; Sui-Chu et al. 1996).

Control Variables

In addition to parental involvement, other factors, including families' socioeconomic, racial, and cultural backgrounds, may also influence children's school readiness and early educational adjustment. Opportunity gaps permeate education, with Black and Latinx students not afforded the same opportunities as their white peers (Flores 2007), as a result of an education debt of structural racial and economic inequality (Ladson-Billings 2006), with educational inequalities beginning even before students enter kindergarten (Morsy and Rothstein 2015). For example, structural barriers exert a stronger influence over the disparity between Black students' and white students' standardized test scores than factors within school readiness measures (Ricciardi et al. 2021). Parents' academic socialization practices, as well as beliefs about children's development, home enrichment activities, and child's kindergarten literacy and numeracy skills may vary between racial and ethnic backgrounds, with white and Asian children students beginning kindergarten with higher scores on reading and math skill assessments than Black and Latinx children (Sonnenschein and Sun 2017). The association between grades and dimensions of inequality such as race, poverty, and gender may additionally increase over time, suggesting that marginalized students face greater risks of enduring institutional racism, classism, and/or sexism as they advance in their educational career (Ricciardi et al. 2021). Some research finds that parental involvement in children's education may vary by socioeconomic status or family structure (Lareau 1989), while other scholars claim that socioeconomic status has no significant impact on parent involvement, with only moderate relationships to parental involvement measures, which impacted student academic achievement separately from family socioeconomic or racial background (Sui-Chu et al. 1996). Socioeconomic status can comprise variables including income, occupational status, and educational level, each component of which

may have different relationships to components of school readiness. Higher educational attainment may be associated with a greater level of familiarity with school-based norms and preparedness expectations, while higher income may ensure more economic resources at parents' disposal. Socioeconomic status is sometimes approximated by parental educational attainment, particularly mother's education (Schaub 2010), and by household income levels, which each provide useful metrics for analyzing differences and trends across and within socioeconomic groups.

HYPOTHESES

In the present study, I hypothesize that (H1:) **parent behaviors related to educational involvement will be positively associated with children's behaviors related to school readiness**, and (H2:) **socioeconomic status** (as conceptualized by parental educational attainment and household income measures) **will be positively associated with higher levels of parental involvement behaviors**. Finally (H3:) **Socioeconomic status will be positively associated with school readiness**. Thus, I expect that children from families with higher socioeconomic statuses will be more likely to have access to and educationally benefit from the resource of parental involvement.

METHODS

The Early Childhood Longitudinal Study - Kindergarten (ECLS-K) from the National Center for Education Statistics (NCES), a component of the U.S. Department of Education's Institute of Education Sciences (IES), incorporates data from a nationally representative sample of children. The data follows children from entry into school in kindergarten through the end of

elementary school in fifth grade. Although the dataset itself is longitudinal, this study focuses on a cross-sectional comparison of students during the period of their entry into elementary school. The dataset offers a variety of variables related to school contexts, communities, families, and students themselves.

My independent variable measures how often in a week the child's parent reads books to their child in a week, as a categorical variable including response options of "not at all," "once or twice a week," "3-6 times a week," and "every day." This variable is used to approximate at-home parental involvement. While at-home parental involvement activities can span a wide range of activities, including singing songs, discussing the natural world, and playing games with children, this analysis focuses on reading books as it specifically pertains to students' exposure to literacy activities and a form of direct instruction on the part of the parent. This is important as schools increasingly focus on core subjects including reading and math, and in offering children familiarity with the dominant cultural expectations of the school. At-home parental involvement in schooling may have a significant impact on academic outcomes for students, perhaps even more so than in-school involvement (Anderson and Minke 2007; Sui-Chu et al. 1996). The dependent variable in this analysis is children's approaches to learning rating in kindergarten, which is reported by teachers and is comprised of an assortment of variables related to children's skills relating to school readiness, including "keeps belongings organized," "shows eagerness to learn new things," "works independently," "easily adapts to changes in routine," "persists in completing tasks," and "pays attention well" (U.S. Department of Education 2014). These skills are reported as a scale ranging from the possible values of 1-4, corresponding with how frequently children demonstrated these specific skills, according to teacher reports, with higher scale numbers representing more frequent demonstration of desirable learning behaviors. NCES

researchers developed the skills included in the teacher-reported measure of approaches to learning specifically for the ECLS-K study, and teachers were presented with questionnaires asking them to rate the frequency of these behaviors alongside items on students' self-control, interpersonal skills, externalizing problem behaviors, and internalizing problem behaviors. While these skills are not necessarily prerequisites to academic success in kindergarten, teachers' perceptions of students' behavioral adjustment to the expectations of the classroom can influence discipline outcomes in elementary school (Ricciardi et al. 2021).

RESULTS

Descriptive Statistics

In addition to the primary dependent and independent variables, this study includes an assortment of variables capturing demographic factors to contextualize the variation in parental involvement and school readiness. These include gender, race, disability status, age, parent employment and education level, siblings, and most importantly, household income. In examining income in the later analysis, I chose to recode income to examine two extreme categories on either end of the income spectrum, with one dummy variable representing participants with an annual household income below \$25,000, and another dummy variable representing annual household income above \$100,000. I chose these parameters based on prior research indicating \$25,000 as the poverty threshold for the average family of four, and \$100,000 as the threshold demarcating middle- and upper-class status. Because socioeconomic status in terms of household income is a crucial component of the study, these distinctions help to determine differences between the income levels of the participants.

Table 1. Descriptive Statistics

	Mean	Median	Frequency	% (Rel Freq)	Range (Min)	Range(Max)
APPROACHES TO LEARNING (TEACHER REPORTED)	3.096334	3.1429			1.4286	4
PARENT READS BOOKS TO CHILD						
Twice or less a week			29	9		
3-6 times a week			112	34.9		
Every day			180	56.1		
HOUSEHOLD INCOME BELOW \$25,000						
Above 25K			11	2.8		
Below 25K			381	97.2		
HOUSEHOLD INCOME ABOVE \$100,000						
Below 100K			199	50.8		
Above 100K			193	49.2		
RACE						
White			227	70.7		
Black			14	4.4		
Hispanic			37	11.5		
Asian			29	9		
Indigenous			2	0.6		
Multiracial			12	3.7		
SIBLINGS IN HOUSEHOLD	1.1	1			0	4
AGE AT KINDERGARTEN ENTRY (MONTHS)	66.4528	66.37			48.2	80.77
CHILD DISABILITY						
Yes			45	14		
No			276	86		
CHILD'S GENDER						
Female			167	52		
Male			154	48		
PARENT 1 EDUCATION LEVEL						
Less than high school			3	0.9		
High school			34	10.6		
Some college			73	22.7		
College			111	34.6		
Grad			100	31.2		
PARENT 2 EDUCATION LEVEL						
Less than high school			9	2.8		
High school			58	18.1		
Some college			87	27.1		
College			96	29.9		
Grad			71	22.1		
PARENT 1 EMPLOYMENT STATUS						
Not working at present			13	4.2		
Part-time (less than 35 hours per week)			46	14.3		
Full Time (35 or more hours per week)			262	81.6		
PARENT 2 EMPLOYMENT STATUS						
Not working at present			6	1.8		
Part-time (less than 35 hours per week)			10	3.1		
Full Time (35 or more hours per week)			305	95		

Preliminary Analyses

This bivariate analysis uses analysis of variance (ANOVA) to examine the key independent and dependent variables, approaches to learning and the frequency that parents read books to their children. While the mean approaches to learning score for children whose parents

read to them every day was greater than for children whose parents reported reading to their children less than once a day, the test statistic F is relatively low at 1.281, and the corresponding p -value of 0.279 is greater than 0.05, meaning that these differences are not statistically significant. For this bivariate analysis, I combine the categories “not at all” and “once or twice a week” into a single category “twice or less a week” since $n=1$ for the category “not at all.” The lack of a significant relationship between the two measures does not necessarily mean that there is no association between the concepts of parental involvement and school readiness, but that for these measures and sample, there is no statistically significant relationship. Therefore, I fail to reject the null hypothesis that there would be no statistically significant relationship between approaches to learning and parent book-reading, since $p > 0.05$. In this initial bivariate analysis, I did not find support for my hypothesis that parent behaviors related to educational involvement would be positively associated with children’s behaviors related to school readiness.

Table 2. ANOVA of Approaches to Learning by Parent Book-Reading

Parent Book-Reading	Mean	N	Std. Deviation
TWICE OR LESS A WEEK	3.05419	29	0.5770294
3-6 TIMES A WEEK	3.028909	112	0.6107262
EVERY DAY	3.145078	180	0.6340611

$F=1.281$

$p=.279$

Regression Analyses

The first regression model includes only the key independent and dependent variables, and, like the bivariate analysis, finds no statistically significant relationship between number of times parents read to children and teacher-reported approaches to learning. The second model

incorporates the recoded measures of household income that approximate low-income, middle-class, and upper-class household income levels, but also fails to reach significance for either variable. The third model adds race to the regression analysis but fails to reach significance in any of the racial categories included. The final model is the only model that demonstrates significant relationships between the variables, and the model with the highest r-squared value, demonstrating that more of the variation in the dependent variable is explained by the final model, incorporating all of the control variables, than any of the other models.

I reject my first hypothesis, that parent behaviors related to educational involvement will be positively associated with children's behaviors related to school readiness, because in assessing the regression analyses, this relationship was not found to be statistically significant in any of the models. While the Beta coefficient was positive across all models, the p-value was greater than 0.05 in every model, meaning that there were no statistically significant relationships between the school readiness measure and the parent involvement measure. For my second hypothesis, that socioeconomic status will be positively associated with higher levels of parent involvement behaviors, I find conditional support for my hypothesis.

Table 3. OLS Regression Analysis of APPROACHES TO LEARNING

<i>Independent Variables</i>	Model 1		Model 2		Model 3		Model 4	
	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>
Parent Reads Books to Child								
Twice or less a week	-0.091	0.465	-0.019	0.879	-0.024	0.857	0.048	0.725
3-6 times a week	-0.116	0.121	-0.104	0.163	-0.105	0.167	-0.06	0.441
Every day								
Household Income								
Below \$25,000			-0.391	0.057	-0.384	0.08	-0.503	0.036
\$25,000 to \$100,000								
Above \$100,000			0.073	0.301	0.061	0.397	0.112	0.144
Race								
Indigenous/Native American					0.187	0.514	0.031	0.013
Asian American					0.082	0.485	0.045	0.777
Native Hawaiian/Pacific Islander					0.542	0.408	-0.046	0.965
Black					0.067	0.637	0.068	0.586
White								
Latinx					-0.041	0.732	-0.025	0.84
Multiracial					-0.291	0.134	-0.252	0.192
							-0.005	0.907
							0.035	<.001
Number of Siblings in Household								
Age at Kindergarten Entry (months)								
							0.035	<.001
Child Disability								
Yes							-0.301	0.003
No								
Gender								
Female							0.253	<.001
Male								
Parent 1 Education								
Less than High School							-0.117	0.776
High School Degree								
Some College							0.003	0.982
College							0.079	0.539
Graduate School							0.064	0.64
Parent 2 Education								
Less than High School							0.144	0.593
High School Degree								
Some College							0.05	0.647
College							-0.078	0.504
Graduate School							-0.025	0.847
Parent 1 Employment Status								
Not working at present							0.166	0.095
Part Time (35 hours or less)							0.088	0.641
Full Time (more than 35 hours)								
Parent 2 Employment Status								
Not working at present							-0.109	0.584
Part Time (35 hours or less)							0.031	0.916
Full Time (more than 35 hours)								
Model Statistics								
<i>r</i> ²		0.008		0.025		0.034		0.159

The final multivariate regression model, Model 4, which included all of the control variables, is the best fitting model according to the r-squared model fit statistic of 0.162. In contrast to my hypotheses, the only variables that were statistically significantly associated with my measure of school readiness were gender, age at time of entry into kindergarten, disability status, and one of my socioeconomic status measures. A child being a girl is positively

associated with having a higher teacher-rated approaches to learning score, since the Beta coefficient is 0.253. This relationship is significant as the p-value is less than 0.001. Children's age at the time of entering kindergarten was also positively related to approaches to learning scores, with a Beta coefficient of 0.035. This association was also significant at a p-value of <0.001. In addition, parents' reports that their child has a disability is statistically significantly related to a child's approaches to learning score as well, as the p-value is 0.003, but in this case, the relationship is negative, with a Beta coefficient of -0.301. My hypotheses did not account for gender and disability as potential factors in the differences between children's school readiness score ratings. Although I hypothesized that socioeconomic status would have a significant relationship with school readiness measures, only families' yearly household income being below \$25,000, in comparison to the reference category of those families whose income was above \$25,000, was statistically significantly related to the school readiness measure, and this significant association only appeared in Model 4, which controlled for other factors contributing to this variation, but not the other models in which the socioeconomic status variable was included. Households reporting incomes below \$25,000 had a Beta coefficient of -0.503 and a p-value of 0.036, which is less than the alpha-level of 0.05. The negative Beta coefficient suggests that children in low-income households (defined as below the estimated poverty line for a family of four) may have received lower ratings on these teacher assessments of school readiness. This suggests that there may be some statistically significant relationship between socioeconomic status and school readiness, although the other approximations of socioeconomic status did not reach significance in these models, and this measure did so only in the final model including all controls. My main independent variable of interest, the number of times parents reported reading to their child within a week, was not statistically significant in any of the models.

Table 4. OLS Regression Analysis of PARENT BOOK-READING

<i>Independent Variables</i>	Model 1		Model 2	
	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>
Household Income				
Below \$25,000	-0.188	<.001	-0.046	0.468
\$25,000 to \$100,000				
Above \$100,000	0.105	0.06	-0.009	0.878
Number of Siblings in Household				
			-0.079	0.146
Child Disability				
			0.056	0.293
Age at Kindergarten Entry (months)				
			0.077	0.146
Gender				
Female			0.077	0.148
Male				
Race				
Indigenous/Native American			-0.03	0.612
Asian American			-0.078	0.181
Native Hawaiian/Pacific Islander			-0.005	0.934
Black			-0.183	0.001
White				
Latinx			0.038	0.639
Multiracial			0.05	0.447
Parent 1 Education				
Less than High School			0.081	0.181
High School Degree				
Some College			0.027	0.747
College			0.167	0.076
Graduate School			0.209	0.031
Parent 2 Education				
Less than High School			-0.173	0.01
High School Degree				
Some College			0.202	0.007
College			0.306	<.001
Graduate School			0.201	0.013
Parent 1 Employment Status				
Not Working at Present			0.032	0.582
Part Time (35 hours or less)			0.103	0.054
Full Time (more than 35 hours)				
Parent 2 Employment Status				
Not Working at Present			-0.025	0.684
Part Time (35 hours or less)			0.043	0.417
Full Time (more than 35 hours)				
Model Statistics				
r2			0.053	0.233

In the regression analysis of parent-book reading as the dependent variable and socioeconomic status in Table 4, measured as household income, as the independent variable, I find that socioeconomic status is only statistically significant in terms of annual household income below \$25,000, and only before accounting for other demographic factors. In this analysis, the Beta coefficient is -0.188 and the p-value is less than 0.001, which means that there is a significant negative relationship between being low-income and frequency of parent book-reading. In the multivariate regression accounting for other control variables, other variables that have significant relationships with parent-book reading are parental education and the child's race. Being Black is significantly negatively associated with parent book-reading, with a Beta coefficient of -0.183 and a p-value of 0.001. However, many other factors may influence parent book-reading behaviors that are not included in this analysis, and as prior work has shown, a variety of factors, including racism implicit and explicitly expressed in schools and our definitions of "parental involvement," can influence these results and the way that we value and prioritize different forms of parent involvement. Referring to prior work that rejects racist deficit framing of Black families and Black family involvement is crucial to untangling the interactions between race, anti-blackness, and education. In terms of parent education, this multivariate analysis finds significant relationships between parent book-reading and the primary parent (a position assigned by the NCES researchers to mothers in most cases) having attended at least some graduate school, which has a Beta coefficient of 0.201 and a p-value of 0.013, and all levels of educational attainment for the secondary parent (a position typically assigned by the NCES researchers to the fathers in the sample). Secondary parents attaining less than a high school degree has a Beta coefficient of -0.173 and a p-value of 0.01, which signals a significant negative relationship between parental educational attainment and parent book-reading. An

attainment of some college has a Beta coefficient of 0.202 and a p-value of 0.007, a college level educational attainment has a Beta coefficient of 0.306 and a p-value of <0.001 , and attending at least some graduate school has a Beta coefficient of 0.201 and a p-value of 0.013. This consistently significant association between (typically) father's educational attainment and the parental involvement measure is interesting, since much prior work has examined the relationship between father's educational attainment and children's educational outcomes. These results suggest that parental involvement may play some role, or potentially serve as a mediating factor in transmitting social advantage from parents to children. Because of the limited evidence in support for the hypothesis that socioeconomic status has an association with parental involvement, I also reject this hypothesis and need to do further work to investigate the relationships between these variables. The results demonstrate somewhat limited support for the third hypothesis, that socioeconomic status will be positively associated with school readiness, as well. The regression analysis in Table 3 only finds a significant negative relationship between low-income households and approaches to learning score in the final model, with a Beta coefficient of -0.141 and a p-value of 0.036, which suggests somewhat limited support for this hypothesis.

DISCUSSION

Although I hypothesized that parental involvement would be positively associated with school readiness, socioeconomic status would be positively associated with parent involvement, and socioeconomic status would be positively associated with school readiness, the analyses provided only limited support for the second two analyses. This suggests that while lower socioeconomic status is negatively associated with both parental involvement and school

readiness behaviors, parental involvement does not act as a mediating variable between the two. Socioeconomic status may not have had the clear effects that I expected because of other variables that appeared with it. For example, low socioeconomic status may be associated with both less frequent book-reading behaviors on the part of parents and children's approaches to learning score, but these could also be caused due to extraneous spurious factors that might not be taken into account in the final model including the controls. Socioeconomic status in terms of household income may only have significant effects on parent book-reading up until a certain point (for example, the \$25,000 threshold), after which it no longer makes enough of a difference to be significant. Families who have access to enough resources to support their children materially (e.g., stable housing, food), which crossing such an income threshold may signify, may have additional time and resources to support their children and their education through parental involvement activities like book-reading. While reaching this point of a certain level of material security may increase parents' ability to provide supplemental educational activities, it may not increase significantly with income increases above that point. The dummy variables used in this paper to approximate the lowest and highest ends of the income spectrum cannot fully encapsulate the nuances of socioeconomic status's relationship with educational involvement and preparedness. In addition, the fact that parents' educational attainment had significant effects on parent book-reading habits suggests that parents' approaches to their children's education are shaped by their own experiences with education, and perhaps that their beliefs about involvement are shaped by their proximity to and understanding of educational systems. This suggests that the interactions between socioeconomic status and parent involvement transcend simply income to comprise a variety of factors contributing to parents'

behaviors. Further investigation is needed to explore the relationships between these complex variables.

Several variables emerged as significantly associated with the school readiness measure that were not predicted in my hypotheses, including gender, age at kindergarten entry, and disability. In terms of influences on parental involvement, parents' educational attainment (particularly father's educational attainment) and children's race were also somewhat significant in the multivariate regression analysis. These suggest that while socioeconomic status may play an important role in shaping children's educational trajectories, the plethora of other factors that interact with parental involvement and school readiness also play a role in determining students' experiences with schooling. Practitioners and policymakers must be conscious of how these disparities can affect learning outcomes, as academic achievement disparities in grades based on inequalities of race, class, and gender can expand over time (Ricciardi et al. 2021). While parental involvement in the school early on in students' academic careers can support students' long-term academic outcomes (Barnard 2004), parental involvement can vary based on parent expectations (Englund et al. 2004), beliefs about education (Elliott and Bachman 2018, Englund et al. 2004), and knowledge of development (Sonnenschein and Sun 2017). Therefore, educators and administrators must be proactive about encouraging, supporting, and resourcing parental involvement in a variety of forms, since parents are more likely to become involved upon explicit invitation (Anderson and Minke 2007). Although this analysis appears to suggest that Black families may have slightly lower levels of parental involvement, prior work has shown that Black families have higher levels of parent involvement than white families, apart from involvement with in-school activities (Sui-Chu et al. 1996). Since schools as institutions already work to advantage white, middle-class, and English-speaking modalities of engaging with

education, while disparaging marginalized families, it is critical to further critique implicit assumptions about what constitutes “school readiness” and “parental involvement” (Fernández and López 2017, Love et al. 2021). Beyond this, the fundamental role of schools in the United States as instruments of social reproduction of dominance and marginalization must be analyzed and critiqued more broadly. Advantaging the involvement practices of families marginalized by race and socioeconomic status is critical for supporting students learning and promoting educational equity.

Limitations

This study included several notable limitations. The measures operationalizing the key concepts of parental involvement, school readiness, and socioeconomic status encompass only components of each of these concepts. While this school readiness measure takes into account a variety of school-related behaviors that can certainly indicate students developmental readiness (e.g., “persists in completing tasks”) and readiness to adapt to the expectations of the classroom (e.g., “keeps belongings organized”) (Carlton and Winsler 1999), the analyses in this study did not include the variety of early numeracy and literacy skills (Jeon et al. 2020), language and cognitive skills (Ricciardi et al. 2021), or socioemotional skills (Jeon et al. 2020; Ricciardi et al. 2021) that are described in the literature. In addition, the measure of school readiness used in this study relies on a cumulative score of teacher reports of the frequency of student behavior, which may not represent the full picture of student behaviors or developmental and cognitive orientations towards learning and readiness for schooling. While one strength of the measure used in this study to approximate parent involvement is that it is self-reported by the parents, rather than imposed through teachers’ perspectives (Anderson and Minke 2007), the measure for

parental involvement captures only one dimension of the broad and diverse possibilities for conceptualizing a complicated concept, which may look vastly different across cultural backgrounds and community contexts (Fernández and López 2017; Lareau 1989; Love et al. 2021, Sui-Chu et al. 1996). Although this variable, which records the number of times the primary parent (typically recorded by the NCES researchers as the child's mother), reads to the child each week, has basis in prior work including parents' reading to children as an important component of parent involvement in school-related activities in the home (e.g., Schaub 2010), this variable incorporates only a single facet of one form that parental involvement in schooling can take.

Recommendations

Future research should incorporate a broad range of parental involvement activities and measures of school readiness to embody the multiplicity of forms these variables can take. In terms of parental involvement, ECLS-K offers variables spanning a variety of parent involvement practices. This includes the frequency of at-home practices such as singing songs, doing art, telling stories, building things, playing sports, practicing numeracy skills, and talking about nature. Some of these practices are described in the literature (see Lareau 2011 and Schaub 2010). In addition, the data set also provides measures of parent involvement with in-school involvement opportunities, such as attending back-to-school night, attending PTA meetings, attending parent-teacher conferences, and volunteering at school, offering researchers the opportunity to delve in-depth into a variety of parent involvement practices. The ECLS-K data set also offers variables that can measure a variety of school readiness factors. This includes children's social and cognitive skills upon entry into kindergarten, including teacher reports of

self-control, interpersonal skills, and externalizing and internalizing problem behaviors, which could be used to create a composite measure of the variety of competencies that support kindergarteners' early learning success. In addition, future research can take advantage of the longitudinal data available to extend the examination of children's academic trajectories through elementary school to uncover potential trends and relationships between early school preparedness measures and later academic outcomes.

CONCLUSION

This study sought to investigate the extent to which parental involvement affected students' school readiness. I hypothesized that socioeconomic status would also play a key role in this relationship. Through analysis of descriptive statistics, analysis of variance, and regression models examining these key variables as well as demographic variables such as race, gender, disability, and parental educational attainment, I found no significant evidence that parental involvement contributed to students' school readiness. Furthermore, only low annual household income had a significant negative relationship with parent book-reading and teacher-rated approaches to learning, suggesting that low income may be associated with decreased parent involvement and school readiness behaviors, at least as validated by schools. Parental educational attainment, another proxy for socioeconomic status, also had significant associations with parent involvement in terms of book-reading. In examining the relationships between parent involvement and school readiness, it is important to critique the ways that we define and value these concepts in trying to promote equity in education.

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