Early Childhood Longitudinal Study, Kindergarten Class of 2023-24

(ECLS-K:2024)

Kindergarten and First-Grade National Data Collection and Transfer School Recruitment

OMB# 1850-0750 v.29

Supporting Statement

Part C

National Center for Education Statistics

U.S. Department of Education

October 2022

revised April 2023

revised October 2023

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Part C – The ECLS-K:2024 Kindergarten and First-Grade National Instrument Details

C.1 Introduction

The design of the ECLS-K:2024 and its survey instruments is guided by a conceptual framework of children's development and learning that emphasizes the interaction among the various environments that children experience and the resources within those environments to which children have access. For this reason, the study collects information on a wide array of topics, including the characteristics of the child, the child's family, the community, nonparental care and education arrangements, and the child's school and classroom environments. The ECLS-K:2024 incorporates multiple respondents so that information about each of the environments children experience can be collected from those most likely to provide accurate and reliable data. The respondent surveys included in the study and the general topics covered in each include:

- Parent Survey—to be completed by parents/guardians of children in the study. Across the two waves of collection in kindergarten and one wave of collection in first grade, the parent instruments include questions about family structure, the languages spoken in the home, parent education, parent employment, the home environment, the parent's health and well-being, family practices, food security and consumption, discipline, parent involvement in school, school practices, early care and education, and the child's behavior regulation. Parents provide assessments of children's social skills that are comparable to those in the teacher survey and also report on their children's level of physical activity, health, and disabilities.
- General Classroom Teacher Survey—to be completed by classroom teachers of children in the study. There are two teacher surveys. The first, the teacher-level survey, includes questions about the classroom and student body characteristics, class schedules, class materials, instructional practices, and curriculum. It also includes items on the teacher's background, teaching experience, and attitudes about teaching and the school climate. The second survey is a child-level survey that has questions specifically about each study child and includes the teacher's ratings of the child's academic and cognitive abilities, behaviors, and social skills, as well as information about program placements and special services that each child may receive.
- Special Education Teacher Survey—to be completed by the special education teacher or service provider for children in the study who have an Individualized Education Program (IEP). There are two surveys for the special education teacher. The first survey, the teacher-level survey, includes questions about the teacher's background, training, and school assignment. The second survey, the child-level survey, has questions about the study child who has an IEP, including items about child characteristics and services the child receives.
- School Administrator Survey—to be completed by the principal or director of each school attended by a child in the study. This instrument includes a broad range of questions about the school setting; policies, programs, and practices at the school level and in kindergarten and first grade; and questions about the principal and about the teaching staff.

The design and implementation of these instruments was tested in the fall 2022 K-1 field test. The resulting data were reviewed for missingness, bias, and other issues. Fall and spring kindergarten items were revised or deleted as needed for the launch of the national study in the fall of 2023 and the spring kindergarten round in spring 2024. The final revised spring first-grade survey instruments will be provided in a future revision request, as noted below. The data from the final instruments used in the

national study can be used, in conjunction with the data obtained in the ECLS-K:2024 direct assessments, to answer a wide variety of research questions about how home, school, and neighborhood factors relate to children's cognitive, social, emotional, and physical development. The instruments included in the current OMB package reflect all of the changes expected for the spring kindergarten surveys. The fall kindergarten instruments were approved in a July 2023 revision request. Final spring first-grade items/instruments that have been revised in response to fall 2022 field test analyses and, when appropriate, fall 2023 national data collection experiences will be submitted in future revision request memos with 30-day comment periods. For the current OMB package, focus was placed on refining the spring kindergarten web and paper surveys based on final analyses of the K-1 field test data. Web surveys for spring kindergarten and spring first grade were drafts included in the October 2022 submission in order to show the expected research domains and the basic structure of the instruments. The spring kindergarten and spring first-grade web instruments were not fully updated in the October 2022 submission. The spring kindergarten survey has been revised, but the spring first grade survey has not changed since that submission. Revisions including those to update spring first grade to use the most recent version of items are forthcoming in a future version request.[1] Additionally, spring first-grade paper surveys will be developed when their respective web survey is final.

The following sections include research questions that may be addressed with the data from each instrument and lists of the constructs and accompanying discussion of some of the important constructs covered by each instrument. Specifically, Part C provides information about the general contents of the ECLS-K:2024 K-1 national parent surveys, the school administrator surveys, and the regular classroom and special education teacher surveys. The survey instruments can be viewed in Attachments B (parent web surveys), C (primary and special education teacher-level web and paper surveys), D (primary and special education child-level teacher web and paper surveys), E (school administrator web and paper surveys), G (the full catalog of items along with information about the role each item plays in addressing the research questions and theoretical constructs described below) and H (a list of all spring kindergarten items from the field test that were removed, added, and changed, along with a rationale for the changes). The full draft surveys are being presented and items are also listed in Attachments G and H.

In the October 2023 revision request, all spring kindergarten instruments have been updated to be their final versions. Specifically, the following attachments have been updated: Attachment B-2 (spring kindergarten parent web survey), Attachment C-3 (spring kindergarten teacher-level teacher web survey), Attachment C-4 (spring kindergarten teacher-level teacher paper survey), Attachment C-6 (spring kindergarten teacher-level special education teacher web survey), Attachment C-7 (spring kindergarten teacher-level special education teacher paper survey), Attachment D-3 (spring kindergarten child-level teacher web survey), Attachment D-4 (spring kindergarten child-level teacher paper survey), Attachment D-6 (spring kindergarten child-level special education teacher web survey), Attachment D-7 (spring kindergarten child-level special education teacher paper survey), Attachment E-1 (spring kindergarten school administrator web survey), and Attachment E-2 (spring kindergarten school administrator paper survey). Attachments C through E for the first-grade surveys were renumbered to accommodate new paper survey attachments for the spring kindergarten paper surveys. In addition, tabs for the spring kindergarten instruments have been updated in Attachment G but no changes to the spring first-grade instrument tabs have been made. Attachment H is a new attachment provided to show item-level changes since the field test. Attachment B-2b (spring kindergarten abbreviated parent paper survey) is a new attachment provided to show an abbreviated paper parent survey that may be administered.

[1] Future revision requests may also include abbreviated surveys for respondents who do not complete full-length surveys during the initial weeks of data collection.

C.2 ECLS-K:2024 Parent Surveys

The ECLS-K:2024 plans to survey parents in all rounds of ECLS-K:2024 data collection. Parents will be asked to complete surveys in the following rounds of data collection: fall kindergarten, spring kindergarten, spring first grade, spring third grade, and spring fifth grade. This document will only discuss the fall kindergarten, spring kindergarten, and spring first-grade data collections.

The children in the study will be from a broad range of family and community backgrounds and enter kindergarten with widely differing abilities and levels of preparation for school. Understanding these variations and examining the ways in which home and school environments interact as children progress through school is a key goal of the ECLS-K:2024. Surveying parents is central to obtaining the information necessary to measure these constructs over time.

The role of the parent in these surveys is twofold. First, because of the young age of the children, parents will provide indirect assessments of their children to enhance the direct assessments. Second, parents will provide information on the home environment, including parenting practices and the family's involvement with the school. In addition, the parents will be primary informants on their neighborhood and will be asked questions to supplement available census data.[2] The ECLS-K:2024 defines the parent to be surveyed as the child's primary caretaker at the time of the survey. Information will also be collected about other parental figures in the household.

C.2.1 Research Questions

Research questions related to the ECLS-K:2024 kindergarten and spring first-grade parent survey items are shown below.

P-RQ1. Policy Issues

- What is the early care and education (ECE) landscape for children during kindergarten and the year prior to kindergarten entry? How does it differ by child background characteristics such as SES, region, and other demographics?
- What special education and related services are being made available to children through the Individuals with Disabilities Act (IDEA)?

P-RQ2. School Readiness

- What skills and experiences do children have upon entry into kindergarten entry and how do these relate to development through elementary school?
- What actions do parents take to prepare their children for school and to ease their adjustment to school? How do these actions relate to later experiences as children progress though elementary school?
- How do schools respond to children with different backgrounds and experiences? How do schools help ease the transition into kindergarten and later grades? How do schools respond to children who exhibit problem behaviors or who are struggling in school?

P-RQ3. Early School Experience and Academic Performance

- What protective factors and/or difficulties do children experience during their kindergarten year?
- How varied are children's experiences in the year prior to kindergarten? In what ways does this variation relate to success at school entry?

[2] In the national study, variables will be created that provide zip and census tract codes for homes and schools. These variables can be used to add census data to the ECLS-K:2024 cases.

- How are parents involved in their children's education during the elementary school years and how does this involvement relate to child development over this period?
- How do parents and schools respond to problems children might experience in school and how are these responses related to child development?
- How do schools and teachers involve parents in their children's education, or how do parents involve themselves in the schooling process?

P-RQ4. Transitions to Kindergarten and Beyond

- What kinds of transition patterns exist for children as they make the move from preschool (or no school) to kindergarten and later elementary school grades?
- How much movement occurs across and within sectors (e.g., private school to public school) during and between kindergarten and later elementary school? How do those children and families who change sectors compare to those who remain in the same sector?
- How is changing school between grades related to children's cognitive and socioemotional development during the elementary school years?

P-RQ5. Cognitive and Socioemotional Growth

- How does socioemotional development differ by student and family characteristics? How is socioemotional development related to children's difficulties and successes in school?
- What are the cognitive growth trajectories for students over time? How do these cognitive growth trajectories vary between students over time?
- How do cognitive and socioemotional growth covary?
- What are the patterns of grade retention for elementary school children?
- What are the patterns of intervention for elementary school children experiencing difficulties in school?
- What factors are related to students' placement in particular educational programs (e.g., special education or gifted and talented programs)?

C.2.2 Kindergarten Parent Surveys: Construct Coverage

In the kindergarten year, there are two parent surveys – one in the fall and one in the spring. For the purposes of this section, the fall and spring kindergarten surveys are discussed together, even though some items are asked in only one round of the study or asked in both rounds only if there are data missing from the fall collection. The constructs for fall and spring kindergarten parent surveys are discussed below.

To bolster information collected from parents, in the spring of kindergarten an abbreviated parent survey may be fielded in the spring of kindergarten, toward the end of the spring kindergarten data collection window. The abbreviated survey will be a paper survey, one page (front and back), and take parents an estimated 5 minutes to complete. The constructs covered in the abbreviated survey are a subset of constructs fielded in the full fall and spring kindergarten parent surveys. Further information on the constructs is presented at the end of this section C.2.2.

C.2.2.1 Constructs for the Parent Surveys

Child Characteristics

The kindergarten parent surveys include questions about the following child characteristics:

- Child's gender (fall and spring kindergarten);
- Child's date of birth (fall and spring kindergarten);
- Timing of kindergarten enrollment with respect to school guidelines (fall kindergarten);
- Whether child is in first, second, or third year of kindergarten (fall kindergarten);
- Enrollment in transitional kindergarten or pre-first grade (fall kindergarten); and
- Child's race/ethnicity (fall and spring kindergarten).

Parent's Involvement with the Child's Education

Parental involvement in education has proven to be a critical influence on school outcomes for children (Stallings and Stipek 1986; Hoover-Dempsey and Sandler 1997; Gonzalez-DeHass, Willems, and Holbein 2005). However, parent involvement is not a single construct but rather refers to many diverse types of home-school interaction. One type of parent involvement involves parents working with their child on homework or educational activities at home or arranging for other persons inside or outside the household to help with homework or tutor the child. Other ways that parents are involved with their children's education is in their interaction with teachers and through participation in organized school activities.

The research on parent involvement describes not just how parents are involved with schools but also how schools work to involve parents. The reauthorization of the Elementary and Secondary Education Act (ESEA) as the Every Student Succeeds Act (ESSA) in 2015 includes new federal grants for Statewide Family Engagement Centers that focus on engaging parents and the community (Ujifusa and Tully 2016). The ECLS-K:2024 will ask parents about school practices designed to increase involvement and communication with parents and ask them to evaluate how well their child's school does these practices. Questions will also be asked about practices to provide an equal and culturally responsive environment and barriers to involvement such as language barriers or inconvenient meeting times.

The following data about parent involvement will be collected from the parents:

- Verification of the child's current kindergarten grade and school (fall kindergarten);
- Parent's choice of school for child (fall kindergarten);
- School attendance (for homeschooled children) (fall kindergarten);
- School's transition activities for kindergarten (fall kindergarten);
- Child's adjustment to kindergarten (fall kindergarten);
- School-initiated contact with parents about behavior problems (spring kindergarten);
- Parent attendance at parent-teacher conferences and meetings (spring kindergarten);
- Parent participation in school activities (spring kindergarten);
- School practices to communicate with parents and encourage involvement (spring kindergarten);
- School practices to provide an equal and culturally responsive environment (spring kindergarten);
- Whether school provides translated materials (spring kindergarten);
- Barriers to involvement with the school (spring kindergarten);

- How often parent or someone else checked that the child completed homework (spring kindergarten); and
- Child activities outside of school hours (spring kindergarten).

School Avoidance

Children's engagement in school has been linked to their achievement (Connell, Spencer, and Aber 1994; Skinner et al. 1990; Ladd and Dinella 2009; Nystrand and Gamoran 1991) and educational progress over time (Alexander, Entwisle, and Dauber 1993). As noted by Ladd and Dinella (2009), there are several different types of school engagement, including behavioral, cognitive, and emotional engagement. Ladd and Dinella (2009, p. 2) note that there are multiple definitions of each type of engagement and state that behavioral engagement "refers to participation in the learning environment;" emotional engagement refers to "children's sentiments toward school;" and cognitive engagement refers to "the level of processing or intellectual effort that students devote to mastering learning tasks." They note that emotional engagement has been studied less frequently than cognitive engagement or behavioral engagement. In a longitudinal study that followed children from school entry to the eighth grade, Ladd and Dinella (2009) examined both emotional engagement (using parent and teacher measures of children's school liking and avoidance) and behavioral engagement (using a teacher measure of children's cooperative and resistant participation in the classroom) to determine their relation to children's achievement. Findings showed that both types of engagement were related to changes in children's achievement over time.

Like the ECLS-K:2011, the ECLS-K:2024 parent survey will include school avoidance as a measure of student emotional engagement. These questions will be asked beginning in kindergarten rather than the fourth grade as was done in the ECLS-K:2011 because it was recommended at the Technical Review Panel (TRP) meeting that the study have a baseline measure of school avoidance to relate to school adjustment. Items are taken from the Parent Report of School Liking and Avoidance Questionnaire (P-SLAQ; Ladd et al. 2000), a scale developed for children in kindergarten and used throughout the elementary school years. It asks about the following:

- The child's school avoidance (spring kindergarten).

Parental Beliefs and Expectations

Parents' beliefs and expectations about their children is another area of interest in the ECLS-K:2024. Mothers' educational expectations for their children have been shown to be positively related to children's academic interests as they proceed through school, and academic interests are, in turn, related to school performance (Dotterer, McHale, and Crouter 2009). Parent beliefs about the skills necessary for success in kindergarten are often related to children's skills at kindergarten entry. Parents' beliefs regarding these school readiness skills can also be compared with teachers' beliefs about school readiness, which will be collected in the teacher survey. With the coronavirus pandemic, parents have additional areas of concern regarding whether their child is falling behind in education and to what extent they can provide supports for their child (Horowitz 2020, The Education Trust 2020).

Three constructs related to parental beliefs and expectations are included in the parent survey:

- Parent's educational expectations for how far the child will go in school (high school, college, etc.) (fall kindergarten);
- Parent's beliefs about school readiness (fall kindergarten); and
- Family concerns about the child's education and services given the coronavirus pandemic (e.g., how confident parents are that their child learned the skills they expected them to learn, concern over the child falling behind in school as a result of any disruptions caused by the coronavirus pandemic, receipt of special education services) (fall kindergarten).

Family Structure

Family structure is associated with children's outcomes and the economic circumstances in which they are raised. Research has shown that children with married parents generally have better physical and mental health than children of parents who live together but are not married (Cavanagh and Fomby 2019). Findings have shown that health benefits to children living in families with married parents are the same regardless of whether the parents are the same or different sexes (Reczek et al. 2016). Umberson and Thomeer (2020) note that one reason for findings about married parents may be that families with married couples experience less instability, stress, economic issues, and changes in family routines and relationships than families with unmarried couples. As reviewed by Umberson and Thomeer (2020), family instability and transitions have been found to be negatively related to children's health and well-being.

Parental divorce has been negatively related to a variety of children's academic, social, and psychological outcomes (Child Trends 2015). In addition, children born to single rather than married parents are more likely to experience changes in family living arrangements over time and their parents report negative behavioral and cognitive issues (Child Trends 2016). They are also more likely to experience poverty. In 2017, 41 percent of families headed by a single mother were living in poverty, compared to 8 percent of families with married parents (Child Trends Databank 2019). Cohabitation has also been found to be related to children's outcomes. Children born to parents who cohabitate are less likely to be in a stable family through age 12 than children born to married parents and are also more likely to experience poverty (Manning 2015).

The longitudinal nature of the ECLS-K:2024 makes it ideal for investigating the impact of change in family composition prior to and during children's elementary school years.

The ECLS-K:2024 will gather data on the following aspects of family structure:

- Number of household members age 18 and older (fall and spring kindergarten);
- Number of household members age 17 and younger (fall and spring kindergarten);
- Parents or guardians in the household (fall and spring kindergarten);
- Family relationship of key parent figures to the child (e.g., adopted) (fall and spring kindergarten);
- Gender, age, and race/ethnicity of key parent figures (fall and spring kindergarten);
- Number of household members who are siblings to the child (fall and spring kindergarten);
- Number of household members who are grandparents to the child (fall and spring kindergarten);
- Marital status of the primary caretakers (fall and spring kindergarten);
- Whether the child has always lived with the respondent and if not, for how long they have lived together (fall kindergarten); and
- Family structure change and loss (e.g., remarriage, divorce, and death) (fall and spring kindergarten).

Parent Characteristics

Basic parental demographic information will include:

- Resident parent figures' gender, age, and race/ethnicity and nonresident parents' gender (fall and spring kindergarten); and

- Parent's vital status (collected by asking about a biological/adoptive parent who does not live in the household or collected when a parent/parental figure identified in a previous round is no longer in the household) (fall and spring kindergarten).

Home Language

English language learners (ELLs) are an increasing group of students in the United States. From 2000 to 2017, the percentage of children ages 5 to 17 who spoke a language other than English at home increased from about 18 percent to about 23 percent (Federal Interagency Forum on Child and Family Statistics 2019). English language learners come from a variety of backgrounds, have different levels of proficiency in English, and speak many different languages. In the United States, among students ages 5 to 18 who reported speaking English less than "very well," Spanish was the most common first or home language (71 percent) followed by Chinese (4 percent) (Ruiz-Soto, Hooker, and Batalova 2015).

Children entering kindergarten as English language learners may face particular academic challenges in addition to those related to socioeconomic status, such as low parent education levels. Using ECLS-K:2011 data, Ansari and Crosnoe (2018) examined the transition to kindergarten for ELL students and found that 48 percent of Hispanic and 54 percent of Asian-American children in the fall of kindergarten came from homes where English was not spoken. Results from reading and mathematics assessments showed that English language learners entered kindergarten about a year behind their classmates who only spoke English; however, these findings were largely due to lower maternal education. English language learners showed strengths in teacher ratings of behavior and social skills, including approaches to learning.

Some studies have focused on how non-English speaking children can be helped by preschool programs. As reviewed by Ansari and Crosnoe (2018), high-quality preschool programs have been related to increased school readiness for all children, but the effects have often decreased as school continues, perhaps because investments in children's education before school entry are not sustained once school starts. One study by Bachman et al. (2018) used kindergarten to third-grade data from the ECLS-K:2011 and examined academic and behavioral outcomes for Latino children with different early care and education experiences. Bachman et al. (2018) found that in the fall of kindergarten, Latino children from English-speaking families had higher reading and mathematics assessment scores than those from Spanish-speaking families who were in public preschool, Head Start, or not in preschool. These effects decreased greatly by the third grade. However, Latino children who attended private center-based early care and education arrangements showed nonsignificant differences by language spoken at home in reading outcomes in the fall of kindergarten. By third grade, though, Latino children from English-speaking households who attended private center-based early care and education arrangements had higher reading scores than children from Spanish-speaking homes. There were few differences in social or behavior ratings by language or preschool type in the fall of kindergarten, but by the third grade there were more externalizing problems among English-speaking Latino children who had attended Head Start for preschool. Thus, there were short-term effects of language and preschool early care and education arrangements on academic outcomes in the fall of kindergarten, but long-term differences were inconsistent for academic and behavior outcomes by the third grade.

The parent survey will include questions about the primary languages spoken in the homes of the study children, in addition to questions about the home languages of the study children. Researchers can consider the language environment at home along with information from the school and teacher surveys about the child's instructional environment to better understand the interplay of factors related to ELL children's academic progress.

The parent surveys include questions about:

- Languages spoken in the home (fall and spring kindergarten);
- Primary language spoken (fall and spring kindergarten);
- How often parents speak a language other than English to the child (fall kindergarten); and
- How often the child speaks a language other than English to parents (fall kindergarten).

Home Environment, Activities, and Cognitive Stimulation

The environment parents create in the home and the activities in which they engage with their children represent a direct linkage between parental characteristics and the child's development. The mother's parenting practices are closely associated with the development of her child (Kadry, Ali, and Sorour, 2017; Maccoby and Martin 1983), and the practices of the biological father and other parent figures in the household such as step-parents and grandmothers have also been shown to also play a role in children's development (e.g., Dunifon and Kowaleski-Jones 2007 Kadry, Ali, and Sorour, 2017).

Many parent-child activities, for example, with respect to literacy, have been linked to children's achievement in school. Even early home literacy activities with infants may affect children's outcomes prior to school entry. Using ECLS-B data, Sonnenschein and Sun (2017) found that parents' knowledge of children's development and home literacy activities when children were 9 months old mediated the relationship between race/ethnicity and reading scores during preschool. ECLS-K data with children starting in kindergarten have shown that children's literacy is positively correlated with the frequency with which parents read to their children (Almond and Holt 2005; U.S. Department of Education 2000; Sy and Schulenberg 2005) and also with nonliterary, social activities (e.g., teaching children about nature, doing arts and crafts, parents and children eating breakfast together) (Almond and Holt 2005).

Other activities related to children's reading achievement measured in the ECLS-K were the parent telling stories to the child, going to the library, going to museums, and the number of books in the home (Almond and Holt 2005). The amount of time children spend reading to themselves has also been related to reading achievement (Mullis, Campbell, and Farstrup 1993; Stutz, Schaffner, and Schiefele 2016; Tamis-LeMonda, et al. 2019). One study that compared the ECLS-K and the ECLS-K:2011 showed that parent investments in children's learning increased in the ECLS-K:2011 (Bassok et al. 2016). Bassok et al. 2016 found that children in the ECLS-K:2011 compared to those in the ECLS-K had more books and engaged in more literacy activities in the home. Children in the ECLS-K:2011 compared to those in the ECLS-K also had greater access to computers and enrichment activities inside and outside the home. In the ECLS-K:2024, the home environment will be measured by asking parents questions about home activities that have been used in both the ECLS-K and the ECLS-K:2011 (e.g., reading, playing games or doing puzzles with the child).

The opportunity to engage in mathematical activities within the home environment has also been linked to children's early mathematics achievement. Home environments that are of high quality and include mathematical activities have been shown to positively relate to children's early mathematical development (Blevins-Knabe and Musun-Miller 1996; Blevins-Knabe, Whiteside-Mansell, and Selig 2007). Although numeracy-related activities tend to be less prevalent in home environments as compared to literacy-related activities, home environments where such opportunities are offered have been found to relate to early numeracy skills for young children (Anders et al. 2012; Jacobs et al. 2005; LeFevre et al. 2009). Using data from ECLS-K:2011, Padilla, Cabrera, and West (2017) found that low-income Hispanic children experienced fewer opportunities for cognitively stimulating activities in the home and were also behind their White peers in mathematics, both at the beginning of kindergarten and by the end of third grade.

Given the current climate (i.e., the continuing coronavirus pandemic) and the recent reliance on technology for distance and hybrid learning, engagement with technology is a valuable piece of information related to children's home experiences. Questions about technological access (primarily access to computers) were included in ECLS-K. Because in later years computers became available in many different forms, including various handheld devices such as cell phones and tablets, as well as the development of social media, questions about technology use in the ECLS-K:2011 were modified to allows for other electronic devices and to include parent monitoring of social media. Currently, students have access to cell phones, smartphones, computers, tablets, and other electronic devices at increasingly younger ages. Due to the growing use of technology at younger ages and the continuing coronavirus pandemic, it is more important than ever that families have internet access. As the pandemic has influenced technology use and distance learning, the ECLS-K:2024 will be uniquely positioned to examine the impact of distance learning on the use of technology in education moving forward. The ECLS-K:2024 will continue to ask questions about access and parental monitoring of use across more media options than in the ECLS-K:2011 in order to reflect growth in technology use. It will also add questions about children's own devices, family rules about device use, and whether such devices are allowed in children's bedrooms at night. The ECLS-K:2024 provides an opportunity to investigate children's early use of media and technology and allows researchers to examine how screen time affects not just learning and achievement but also social relationships, emotional health, behavior, and physical health in the current and changing technological landscape.

The amount of chaos in the home environment has also been related to children's outcomes, and questions will be included in the parent surveys on this topic. A chaotic home environment may be characterized by low levels of order, predictability, and family routines, along with high levels of noise, crowding, and many persons coming and going (Johnson et al. 2008; Matheny et al. 1995). Household chaos has been associated with poor reading, vocabulary, and phonological awareness (Johnson et al. 2008), general academic achievement (Berger et al. 2019; Berry et al. 2016; Garrett-Peters et al. 2016), lower cognitive ability (Hart et al. 2007), and behavior problems (Coldwell, Pike, and Dunn 2006).

By contrast, aspects of the home environment that suggest predictability, safety, and family routines such as eating meals together, children being in a neighborhood where it is safe to play outside and having a regular sleep schedule have been linked to positive outcomes for children. In the ECLS-K, children whose families ate fewer meals together and whose parents perceived the neighborhood as less safe to play outside were more likely to be overweight in elementary school (Gable, Chang, and Krull 2007; Galaviz, Zytnick, Kegler, and Cunningham 2016). In addition, findings from the ECLS-K also showed a link between parents setting regular bedtimes and children's kindergarten reading scores. Items assessing such aspects of home environments will be included in the ECLS-K:2024.

The ECLS-K:2024 parent survey will also ask about the hours of sleep children generally get on average weeknight. Sleep has been related to many different children's outcomes including achievement (Eide and Showalter 2012) and depression (Smaldone, Honig, and Byrne 2007).

Additionally, family experiences have been affected by the coronavirus pandemic. Research suggests a variation in family's coping resources during the pandemic, time spent as a family, and access to resources outside the household (Weeland, Keijsers, and Byrne 2021).

The following information collected in the ECLS-K:2024 parent survey will address research questions concerning how the home environment influences children's cognitive and social development:

- Home learning activities (fall kindergarten);
- Literacy materials in the home (fall kindergarten);
- Parents' frequency of reading books with the child (fall kindergarten);

- Reading or looking at picture books by the child (fall and spring kindergarten);
- Math activities (spring kindergarten);
- Amount of chaos in the home (spring kindergarten);
- Media engagement and usage (spring kindergarten);
- Availability and use of a home computer/digital device (spring kindergarten);
- Amount of time the child plays video games and watches shows (spring kindergarten);
- Children's organized activities (sports, music, art, etc.) (spring kindergarten);
- Frequency with which the family eats meals together (spring kindergarten);
- Hours of child sleep and whether child has regular bedtime (spring kindergarten);
- Outside play (spring kindergarten);
- Parent perceptions of neighborhood resources and problems (spring kindergarten);
- Outings and activities with child (spring kindergarten);
- Child activities outside of school hours (e.g., outings to zoos, concerts, museums, libraries, bookstores, etc.) (spring kindergarten);
- Child's participation in religious activities or instruction (spring kindergarten);
- Child's volunteer work or community service (spring kindergarten);
- Talking to child about ethnic or racial heritage (spring kindergarten);
- Talking to child about family religious beliefs or traditions (spring kindergarten); and
- Family experiences during the coronavirus pandemic (e.g., restricted in-person interactions with others, virtual interactions with others, participation in learning pods and extracurricular activities during 2020) (fall kindergarten).

Neighborhood

The neighborhoods in which children are raised have been related to their academic outcomes and experiences. One way that neighborhoods contribute to children's outcomes is through resources, such as having a public library. As reviewed by Philbin et al. (2019), public libraries have programs to help with children's reading and social skills (e.g., story hours and play groups) and provide access to the internet, health information, and employment information. Other studies show that resources such as having a neighborhood park are related to children's outcomes. Reuben et al. (2020) used data from the 2016 National Survey of Children's Health (NSCH) and found that not having a neighborhood park was related to children having less physical activity, more screen time, less sleep, being overweight or obese, and having more ADHD symptoms. Poverty was also associated with not having a neighborhood park. Children in the ECLS-K:2011 in high poverty neighborhoods started kindergarten about a year behind academically compared to those living in the lower poverty neighborhoods (Wolf, Magnuson, and Kimbro 2017). Comparing neighborhood and family poverty for children in the ECLS-K:2011 to that of the ECLS-K, Wolf, Magnuson, and Kimbro (2017) also found that a greater proportion of children in the ECLS-K:2011 than in the ECLS-K lived in moderate to high poverty neighborhoods. Gabarino and Kostelny (1993) found that the rate of reported child abuse in the poorest areas is four times higher than the rate in more affluent areas. Aikens and Barbarin (2008) found that negative neighborhood conditions, including low ratings of neighborhood safety, were related to lower growth in literacy and reading ability from kindergarten through the third grade. Children in poor neighborhoods, especially public housing

developments, are also more likely than their peers to witness or be victims of violent crime. Parental adaptations to the immediacy of violence in the poorest urban areas include staying close to their children, as well as restricting children's movement in the neighborhood.

The ECLS-K:2024 parent survey focuses on these aspects of children's neighborhoods:

- Neighborhood resources (spring kindergarten); and
- Neighborhood safety (spring kindergarten).

Child's Social Skills, Problem Behaviors, and Approaches Toward Learning

Social skills have been found to be significant predictors of academic achievement (Clark, Gresham, and Elliot 1985). Problem behaviors, such as aggression or withdrawal, are consistently correlated with negative outcomes for children, including rejection by their peers (for a review of this research see Meisels, Atkins-Burnett, and Nicholson 1995). Based on work by Meisels and his colleagues, the ECLS-K:2024 includes items adapted from the Social Skills Rating System (SSRS) (Gresham and Elliot 1990) and the Social Skills Improvement System (SSIS) (Gresham and Elliot 2008).

The ECLS-K:2024 also includes measures of approaches toward learning. Aspects of learning styles include intellectual openness and curiosity, task persistence and attentiveness, reflection and interpretation, and imagination and creativity. The social skills and approaches to learning behavior ratings from parents are a useful complement to similar measures which will be provided by the teachers. Having two sources of information about the social skills of the children allows researchers to view children's development in this area in both the home and school environments.

The ECLS-K:2024 parent surveys will include items measuring the child's:

- Approaches toward learning (spring kindergarten);
- Self-control (spring kindergarten);
- Social interaction (spring kindergarten);
- Externalizing problem behaviors: Impulsive/Overactive (spring kindergarten); and
- Internalizing problem behaviors: Sad/Lonely (spring kindergarten).

Children's Executive Function

Executive functions are interdependent processes that work together to accomplish purposeful, goal-directed activities and include working memory, attention, inhibitory control, and other self-regulatory processes. Executive processes work to regulate and orchestrate cognition, emotion, and behavior to enable a student to learn in the classroom. For example, executive control involves the ability to allocate attention, to hold information in working memory, and to withhold an inappropriate response (Casey et al. 2000). Not only are these cognitive and behavioral processes predictive of reading and mathematics achievement (Blair and Razza 2007), but there is also emerging research that indicates that some of these cognitive processes are trainable (Rueda et al. 2005; Klingberg et al. 2005) and can be improved upon in regular public school classrooms without costly interventions (Diamond et al. 2007).

The ECLS-K:2024 parent survey includes items on attention, which has been found to relate to children's academic outcomes (Blair and Raver 2015; McClelland et al. 2015). Two aspects of attention measured in the ECLS-K:2024 are attention focusing (the ability to sustain attention) and attention span persistence (the ability to control behavior and emotions to complete challenging tasks) (Zhou et al. 2007). Both are considered aspects of effortful control, a temperament construct that overlaps with executive function and has been associated with a range of positive outcomes in children including academic achievement in kindergarten and first grade and lower levels of externalizing problems in children ages 5 to 10

(Hernandez et al. 2017, Zhou et al. 2007). Attention span persistence may be a more complex ability than attention focusing; McClelland et al. (2013) found that attention span persistence at age 4 significantly predicted math and reading achievement at age 21 as well as the odds of college completion by age 25. Additionally, using a direct assessment of self-regulation (including attention flexibility and working memory), such skills have been found predictive of emergent literacy, vocabulary, and mathematics skills for young children (McClelland 2007; Ponitz et al. 2009).

Items in the parent surveys will measure children's:

- Attention focusing (spring kindergarten); and
- Attention span persistence (spring kindergarten).

Critical Family Processes

Primary caregivers must provide for children's basic material needs, nurturance, and protection. Parents are less able to perform as effective caregivers during times of family dysfunction. A variety of family circumstances pose threats to the healthy functioning and development of children, for example, family illness and disability and high levels of interparental conflict (Shonkoff 1992; Peterson and Zill 1986). Conflict between parents negatively influences the psychological adjustment of school-age children, whether parents live together or not (Grych and Fincham 1990). Furthermore, daughters of mothers who display negative conflict strategies with fathers exhibited both social and physical aggression with peers compared to daughters whose mothers did not have marital conflict (Underwood et al. 2008). Social and material supports for parenting, both on a regular basis and in case of an emergency, may improve parenting styles and enhance parents' ability to foster their child's development. Family routines and the regularity of family life play an important role in the healthy development of school-age children.

To understand family processes, it is also important to understand negative experiences in the family members' lives. Adverse experiences in childhood have been related to problems with health and substance abuse in adulthood (Center for Disease Control and Prevention 2020). New to the ECLS-K:2024 will be a measure of children's adverse experiences from the 2018 National Survey of Children's Health. Questions in the ECLS-K:2024 will ask about family economic hardship, divorce, death, neighborhood violence, and being treated unfairly.

The following constructs will address research questions having to do with how family processes influence children's development:

- The presence of parents, other parent-like figures, and grandparents to support the child and parent (spring kindergarten); and
- Adverse child experiences (spring kindergarten).

Early Care and Education Arrangements

Children's early care and education (ECE) experiences have been linked to positive short- and long-term outcomes for children (Campbell et al. 2012; Deming 2009; Yoshikawa et al. 2013). For example, in their review, Yoshikawa et al. (2013) concluded that preschool programs are related to short-term impacts on children's academic school readiness and that gains are larger for children who attended higher quality programs. Additionally, the review conducted by Yoshikawa et al. (2013) concluded that existing benefit-cost studies also find positive results with respect to investment returns for early childhood programs when benefits are monetized.

School-aged children's after-school needs vary. A national study of children in kindergarten through twelfth grade conducted in January through March 2020 by the Afterschool Alliance (just before the coronavirus pandemic reshaped schooling in the U.S.) suggests that for every child in an afterschool

program, there are three waiting to get in (Afterschool Alliance 2020). The study noted differences by characteristics of children and families, for example, higher income families are more likely than low-income families to be involved in afterschool programs. Collecting current information on enrollment in afterschool programs provides much needed current national information.

Research has indicated that ECE received during the school years can have implications for children's functioning in the elementary school grades. As reviewed by Durlak et al. (2010), although there are some inconsistent findings, many studies have shown that after-school care programs can have positive effects on children's achievement, behavior, physical health, and social competence. Studies of the effects of informal adult care with a relative have shown no apparent risks (Sarampote, Bassett, and Winsler 2004) and some protective effects for children of lower socioeconomic status who experience early care and education with a sitter or relative compared with children of lower socioeconomic status who did not have this type of care (Pettit et al. 1997). Pettit et al. (1997) also found protective effects for children of lower socioeconomic status who had ECE in a day care center compared to children of lower socioeconomic status who did not have this type of care. It was also found that girls who had small amounts of ECE with a nonrelative neighbor had better behavior and achievement ratings than those without any nonrelative neighbor early care and education or those with high amounts of nonrelative neighbor early care and education. Additionally, the coronavirus pandemic affected children's access to and experiences in early education and care, with research suggesting greater challenges for children from low-income families (Adams and Todd 2020, Weiland, Keijsers, and Byrne 2021).

Throughout the study, the ECLS-K:2024 will collect information on the number, consistency, and variety of formal before- and after-school care arrangements that the children currently experience. During the first year of the study, information will also be collected about children's ECE during the year before kindergarten. In sum, the study will include items on the following topics:

- Participation in ECE, by type of arrangement (e.g., relative; non-relative; and center-based) (fall and spring kindergarten);
- Number of ECE arrangements, by type of arrangement (e.g., relative; nonrelative; and center-based) (fall kindergarten);
- Head Start attendance (fall and spring kindergarten);
- Attendance of state sponsored preschool (fall kindergarten);
- Characteristics of the ECE provider (i.e., the language the provider speaks most when caring for the child) (fall kindergarten);
- Time the child spent/spends in ECE arrangements (fall kindergarten); and
- ECE arrangements during the coronavirus pandemic (e.g., continuity or disruptions in care arrangements; remote learning experiences; balancing parent work with child care disruptions; availability of a person inside or outside household to help with remote learning) (fall kindergarten).

Kindergarten Selection and Choice

The parent survey includes items asking how parents learned about their child's kindergarten program as well as the most important factors they considered in selecting a kindergarten. Previous literature focused on how parents make decisions about the school their child will attend show mixed results on what the most important factors are. While some evidence suggested academic quality as a determining factor (e.g., Witte 2001), others find searching for peer composition rises above academic quality in selection (e.g., Schneider and Buckley 2002). Other previous work has also identified demographic differences in the type of selection information to which parents respond (Hart and Figlio 2015).

The ECLS-K:2024 parent survey will provide information on the following:

- How respondent learned of the selected kindergarten (fall kindergarten);
- Reasons for choosing child's kindergarten (fall kindergarten);
- Charge or tuition for school (fall kindergarten); and
- Use of a voucher from the government to pay for school (fall kindergarten).

Involvement of Nonresident Parent

Asking questions about nonresidential parents is of great interest to researchers of family involvement. Nearly four out of ten children are born outside of marriage in the United States (Ventura 2009). Although one study found that 40 percent of nonmarital births are to mothers who are living with partners, the majority of children born outside of marriage do not live with their fathers (Chandra et al. 2005). The high incidence of divorce and separation in this country leads to more children living apart from one of their parents.

Although many fathers who do not live with their children tend to play a smaller role with their children than do resident fathers and may lose contact with them over time, a significant proportion of nonresident fathers do remain involved. Moreover, their involvement is important to children's lives (Amato and Gilbreth 1998; Nord, Brimhall, and West 1998; Jackson, Jeong-Kyun, and Franke 2009). Although the majority of nonresident parents are fathers, an increasing number of children have nonresident mothers. For both policy reasons and to understand children's development, it is important to learn more about both fathers and mothers who live apart from their children.

The following data about nonresident parents will be collected:

- Whether child has biological or adoptive parents who are not currently living in the household (fall and spring kindergarten); and
- Time since last contact (either in person or by telephone, email, text, etc.) with biological/adoptive parents no longer living in household (fall and spring kindergarten).

Child's Health and Well-Being

This section includes items to identify children with different kinds of disabilities and to determine whether children with disabilities are receiving services. The presence of disabilities is a significant risk factor for children's outcomes and is related to children's development and education in school. These items will also provide the data to analyze the accessibility of special education and other programs and plans for children with disabilities. Other indices of children's well-being include rate of growth, physical fitness/activity, and health care utilization (Fattore and Mason, 2018; Newacheck and Hallfon 1988).

The importance of children's health for school success is well established. Chronic conditions and disabilities, such as hearing impairment and physical handicaps, not only "flag" youngsters for administrative attention, they also shape the way that parents, peers, and school personnel relate to the child (Alexander and Entwisle 1988). Even seemingly relatively mild conditions, such as earaches, may affect children's performance in school if left untreated.

Impairments in hearing can contribute to deficits in speech and language acquisition, poor academic performance, and social and emotional difficulties (Cunningham et al. 2003). The American Academy of Audiology notes that 12 to 13 percent of children who are 6 to 19 years old have hearing loss related to noise (e.g., noise that may come from listening to music through ear buds, loud toys, stereos, sporting events, movie theaters, bands, etc.) and recommends that children be screened for hearing loss yearly if they are involved in activities that expose them to loud noise (Hearing Loss Association of America,

2018; National Hearing Conservation Association 2004). They also recommend that hearing loss be ruled out whenever a child is being considered for special education services (American Academy of Audiology 2011). It is important to note that capturing impairments in hearing may be even more important in the ECLS-K:2024 because of the increased noise contamination in classrooms related to additional technology and the variability in teacher approaches to helping all students hear in the classroom (Da Cruz et al. 2016).

Impairments in vision can also lead to learning and socioemotional difficulties. About one in four school-age children have vision problems including amblyopia (lazy eye), strabismus (crossed eye), and myopia (nearsightedness). Studies find that there are racial and ethnic differences in the prevalence and incidence of refractive disorders. A study of 2,523 children in Birmingham, Alabama found that 33.6 percent of Asian children and 36.9 percent of Hispanic children had astigmatism (Collaborative Longitudinal Evaluation of Ethnicity and Refractive Error Study Group 2003).

Other important indices of children's well-being include rate of growth, physical fitness/activity, health care utilization, and the consequences of the irregular medical care received by some poor school-aged children (Fattore and Mason 2018; Newacheck and Hallfon 1988). A number of health risks, such as poor nutrition, low birth weight, and accidental injuries, have detrimental effects on children's school performance. For example, children born at very low birth weight are twice as likely to repeat a grade in school and three and a half times more likely to require special education services as children born at normal birth weight (McCormick, Gortmaker, and Sobol 1990; Newman 1990).

While originally the study intended to collect information on children's height and weight from parents, NCES later decided to directly measure height and weight of children in the study's subsample in all spring rounds. A health risk for children is being overweight. The prevalence of overweight U.S. children since 1980 has increased sharply (Federal Interagency Forum on Child and Family Statistics 2007). In fact, using a nationally representative sample, Skinner, Ravanbakht, Skelton, Perrin, and Armstrong (2018) found that 32.8 percent of 6- to 8-year-old children and 35.6 percent of 9- to 11-year-old children were identified as overweight. Research based on prior administrations of ECLS program kindergarten cohort studies (i.e., the ECLS-K and ECLS-K:2011) confirms the increase in the prevalence of obesity. From the 1998–99 study, when children entered kindergarten approximately 12 percent were classified as obese by their body mass index (BMI). Twelve years later, from the 2010–11 study, the percentage of children starting school classified as obese was approximately 15 percent (Cunningham, Hardy, Jones, Ng, and Kramer 2022). Health risk factors associated with being overweight or obese are high blood pressure, asthma, diabetes, stroke, and heart disease. One ECLS-K study (Judge and Jahns 2007) found that while overweight third-graders did not have more academic problems than normal-weight third graders, overweight girls in the third grade had less self-control and more problem behaviors such as arguing and fighting (called "externalizing" behaviors) and sadness or loneliness (called "internalizing" behaviors) than normal-weight girls.

However, immediate consequences of being overweight are often psychosocial (Federal Interagency Forum on Child and Family Statistics 2007). An elevated body mass index (BMI) can have a significant impact on test scores and school success. Girls who became overweight between kindergarten and the end of grade 3 were significantly more likely to demonstrate a reduction in test scores, teacher ratings of social-behavioral outcomes, and approaches to learning at the end of the third grade (Datar and Sturm 2006). Particularly in girls, appearance and weight gain are linked with perceptions of self-worth (Harter 1999). The importance of continuing to study the relationships between weight and academic performance within the ECLS-K:2024 is seen in the mixed findings for this relationship shown in a systematic review, indicating more work in this area needs to be done (Santana, Hill, Azevedo, Gunnarsdottir, and Prado 2017).

The ECLS-K:2024 will collect the following data addressing children's current and retrospective health status:

- Birth weight (fall and spring kindergarten);
- Whether child was born at term, preterm, or post-term (fall and spring kindergarten);
- Breastfeeding history (fall kindergarten);
- Whether child was part of a multiple birth (fall and spring kindergarten);
- Complications at birth (fall kindergarten);
- History of receiving early intervention (fall kindergarten);
- Current receipt of services through an IFSP, IEP, or 504 plan (fall kindergarten);
- Ear infection history (fall and spring kindergarten);
- Treatments used for ear infections (fall and spring kindergarten);
- Communication problems (spring kindergarten);
- Vision and hearing problems (spring kindergarten);
- Glasses, hearing aids, cochlear implants (spring kindergarten);
- Diagnoses of disabilities and health conditions (spring kindergarten);
- Prescription medications (spring kindergarten);
- General health status (fall and spring kindergarten);
- Routine health and dental care (spring kindergarten);
- Health insurance coverage (spring kindergarten);
- Exercise/physical activities (spring kindergarten); and
- Services for disabilities (spring kindergarten).

Parent's Psychological Well-Being and Health

Current maternal depression is related to mothers' reports of children's internalizing problems and children's own report of depressive symptoms (Tompson et al. 2010). Parents who are depressed or highly stressed are less likely to provide emotional support to their children and more likely to employ harsh disciplinary practices (Puckering 1989; Moore et al. 1995). Maternal emotional distress is associated with a lower frequency of positive behavior (e.g., reduced maternal nurturance) toward children which can lead to children's feelings of depression and anxiety (McLoyd and Wilson 1991). These parenting styles are consistently associated with poorer child outcomes. Findings from the spring of kindergarten round of the ECLS-K showed that 6.4 percent of children had mothers who indicated they had symptoms of depression, with more mothers in lower income families reporting symptoms than those in higher income families (Moore et al. 2006).

In addition, there are other life stressors experienced by parents (e.g., economic concerns, work stress, discrimination, health, relationships, and concerns due to the coronavirus pandemic) that may affect children. A report from the American Psychological Association (2017) showed an increase in the number of Americans who reported at least one symptom of stress in the past month. About a third of adults reported feeling tired, irritable, or angry, and nervous or anxious as symptoms of stress (American Psychological Association 2017). Parents with more stress may show less positive and more negative emotions with their children (Deater-Deckard, Li, and Bell 2016) and children may recognize that parents

are stressed (American Psychological Association 2010). An earlier report from the American Psychological Association (2010) found that almost half of children reported feeling sad when their parent was stressed or worried, and a third recognized that their parents were stressed when they yelled. Children also recognized signs of stress in their parents such as being too busy to spend time with them and arguing with family members (American Psychological Association 2010). Discrimination is also notable factor contributing to family stress (Shonkoff, Slopen, and Williams 2020; Iruka et al. 2022). Due to the continuing coronavirus pandemic, adults may be particularly stressed because of employment, economic, and health concerns. According to the Household Pulse Survey by the U.S. Census Bureau, almost a third of adults (29.7 percent) reported feeling nervous or anxious, about a fifth of adults (22.8 percent) reported not being able to stop worrying, and about a fifth (18.6 percent) reported feeling down more than half the days in the previous week or almost every day (Callen 2020).

The parent survey will include questions about parent's psychological and physical health including:

- Depression and subjective well-being (spring kindergarten);
- Respondent's general health status (spring kindergarten);
- Family health limitations (spring kindergarten);
- Discrimination (spring kindergarten);
- Overall life stress (spring kindergarten); and
- Increase in stress due to the coronavirus pandemic (fall kindergarten).

Peer Victimization

About 6 percent of children in the third grade in the ECLS-K:2011 were reported to have done one of the actions measured as peer victimization in the study (teased, made fun of, or called other students names; told lies or untrue stories about other children; frequently pushed, shoved, slapped, hit, or kicked other students; or frequently excluded other students from play on purpose) (Federal Interagency Forum on Child and Family Statistics 2017). In the ECLS-K:2011, parents were asked about their child's peer victimization starting in the third grade. In the ECLS-K:2024, these questions will be asked of parents of children in kindergarten to explore how early these behaviors begin.

Other research shows that children with disabilities were two times as likely to be either a victim or victimize others as children without disabilities (Rose and Espelage 2012). Findings from the ECLS-K showed that eighth graders with disabilities who were victimized at school watched more television than those without disabilities (Kremer and Kremer 2019). The study also found that test scores in reading were negatively related to television watching. In the ECLS-K:2024, data on children's disabilities, engagement with media/watching shows, and assessment scores could be used together to understand associations with peer victimization.

The ECLS-K:2024 will not collect data from parents about peer victimization in spring kindergarten, but may collect these data in the first grade.

Food Sufficiency and Food Consumption

Adequate nutrition is critical for children's growth and development. According to Coleman-Jensen et al. (2019), 86.1 percent of families with children were food secure with reliable and consistent access to food in 2018. The remainder of the families with children (13.9 percent) experienced food insecurity at some point in the past year. Children in families with low income levels or who are below the poverty level, children of adolescent mothers, and children whose parents are receiving welfare may be at risk of undernourishment. Families' economic status is significantly associated with food insecurity and food insecurity is associated with children's health and behavior difficulties (Dunifon and Kowaleski-Jones

2003; Kimbro and Denney 2015). For example, using ECLS-K:2011 data, Kimbro and Denney (2015) found that transitions in and out of food insecurity were related to children's health, self-control, social skills, and externalizing behaviors. The food sufficiency and food consumption items in the ECLS-K:2024 are from a well-established measure used by the USDA that was also used in the ECLS-K:2011 to describe the level of food security or insecurity in the household.

The ECLS-K:2024 will include items about adult and child food security that ask about:

- Ability to purchase food sufficient for family needs (spring kindergarten); and
- Frequency that adults and children in the household do not have sufficient food (spring kindergarten).

Parent Education and Human Capital

Parents' education—especially mothers' education—has a strong relationship with children's cognitive abilities at the beginning of kindergarten (U.S. Department of Education 2000; Lee and Burkam 2002) and as children progress through school (Rathbun and West 2004). In the ECLS-K:2011 compared to the ECLS-K, 35 percent of mothers of children in kindergarten had a bachelor's degree or higher compared to 24 percent of mothers in the ECLS-K (Engel et al. 2016). Studies have shown that maternal education is a strong predictor of the amount of time mothers spend playing with children, teaching them, and taking them on outings (Hill and Stafford 1980) as well as the time spent engaging in high quality home literacy experiences (Roberts, Jurgens, and Burchinal 2005; Storch and Whitehurst 2001). Maternal education may also be related to the effect of the mother's and father's contributions to preschool children's learning prior to school entry. Foster et al. (2016) found that both mothers and fathers make contributions to preschool children's home learning environments that are related to assessments of children's early academic skills. Mothers' contributions to children's home learning environment were a significant predictor of children's academic skills when mothers have a bachelor's degree or higher, whereas fathers' contributions are most related to academic skills for children whose mothers have less than a bachelor's degree (Foster et al. 2016). Lower parent education has also been related to children's externalizing problems and maternal depression (Moore et al. 2006). Children whose parents do not have a high school degree are also more likely to have a lower birthweight, have health problems, and be less prepared for entering school than children whose parents have a high school degree or higher (Annie E. Casey Foundation 2019).

Educational attainment data will be collected for up to two parent figures in the household. The following data will be collected:

- Diplomas or degrees parent has obtained (fall and spring kindergarten); and
- Parents' current school attendance (spring kindergarten).

Parent Employment

Parental employment status affects the amount of material resources available to the child (Jackson, Bentler, and Franke 2006). Research from the Household Pulse Survey by the U.S. Census Bureau indicates that adults in households with children were more likely to have experienced loss of employment income than adults in households without children since the coronavirus pandemic started. Fifty-five percent of households with children had an adult lose income from employment (Monte 2020). Secure employment (defined as one or both parents being employed full time) is related to the economic well-being of families; access to health insurance; and children's health, academic, and socioemotional development (Federal Interagency Forum on Child and Family Statistics 2019). Meta-analyses of several studies document that socioeconomic status (parent occupation and education) is positively associated with the quality of stimulation that parents provide their children (Gottfried 1984). The type of

employment a parent has may also be related to children's outcomes. In an analysis of ECLS-K data, Bowden et al. (2018) found that students in third through eighth grades with parents in a STEM (science, technology, engineering, and math) field performed better on math assessments than children whose parents were not in a STEM field. Fathers having an occupation in a STEM field was related to the mathematics assessment scores of both male and female children, while mothers having an occupation in a STEM field was only related to mathematics scores of female children but not male children.

One type of employment that is being examined in the ECLS-K:2024 is a family's employment in the military. Children in military families often experience frequent changes in schools as their parent(s) receive new stations for their duties and long periods of absence by one or both parents as they are deployed. Therefore, this is an important factor to consider when investigating children's academic and developmental outcomes.

Parent employment data will be collected for up to two parent figures in the household. The following data will be collected:

- Parents' current employment (spring kindergarten);
- Occupation (spring kindergarten);
- Looking for work (spring kindergarten);
- Employment and education changes as a result of the coronavirus pandemic (spring kindergarten);
- Active duty military service (spring kindergarten); and
- Family hardship (spring kindergarten).

Welfare and Other Public Transfers

Engel et al. (2016) found that 26 percent of children in the ECLS-K:2011 received food stamps while 6 percent received Temporary Assistance to Needy Families (TANF). Receipt of welfare benefits, particularly if receipt is long term, reflects a high level of economic deprivation and generally low human capital on the part of the mother (Zill et al. 1991; Bane and Ellwood 1983). McLoyd and Wilson (1991) found that poor single mothers were substantially more likely to be depressed and to provide a nonstimulating environment to their children ages 10 to 17. Subsequently, children of welfare-receiving families demonstrate poorer outcomes across a variety of domains, compared to more advantaged children (Moore et al. 1993). However, for poor children, the receipt of associated benefits such as Food Stamps, Women, Infants, and Children (WIC), and participation in the Federal school lunch program should have positive implications for their physical health whereas gaps in coverage for these programs can have negative effects on children. Using ECLS-K:2011 data, Arteaga, Heflin, and Parsons (2019) found that the length of the gap between when children were no longer eligible to receive WIC at 60 months old and when they become eligible for participation in the Federal school lunch program at kindergarten entry was related to negative effects on children's reading assessment scores. Although these effects faded for children in full-day kindergarten by the spring of the school year, they illustrate the importance of nutritional assistance programs for children.

Children whose parents are not employed may be particularly disadvantaged in terms of the welfare programs available. Shaeffer and Edin (2018) reported that the number of children in households who received food stamps, or the Supplemental Nutrition Assistance Program (SNAP) and no other source of income was four times higher in 2015 (1.3 million) compared to 1995 (289,000). As summarized by Shaeffer and Edin (2018), for parents who are employed, aid to families is available in the form of tax credits and greater eligibility for SNAP, but for parents who are not employed welfare assistance has

decreased and moved away from cash to in-kind benefits. With little or no cash assistance, some parents who are unemployed have no additional income.

Since March 2020, there have been government efforts to help families affected by the coronavirus pandemic. On March 18, 2020, the Families First Coronavirus Response Act (H.R. 6201) was enacted to provide unemployment benefits and free- and reduced-price school meals for eligible children whose schools were closed due to the coronavirus (Moss et al. 2020). On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) (H.R. 748) was signed into law to support small businesses and provide payments to eligible persons (U.S. Department of the Treasury 2020). States are using funds from these acts to support families. For example, many states are providing money to families to buy children's food through the Pandemic Electronic Benefits Transfer (P-EBT) program when schools are closed for 5 or more consecutive days (U.S. Department of Agriculture 2020). In 2021, the American Rescue Plan Act of 2021 (H.R. 1319) was enacted, providing economic impact payments, child tax credits, state and local fiscal recovery fund, capital projects fund, homeowner assistance fund, emergency rental assistance, state small business credit initiative, employee retention credit and paid leave credit programs, and unemployment compensation (U.S. Department of Treasury 2021). The bill provides continued funding for nutritional programs, including the Supplemental Nutrition Assistance program (SNAP, formerly known as food stamps) (U.S. Department of Agriculture 2021).

In the ECLS-K:2024, parents will be asked to provide information on the following:

- Receipt of benefits from the Special Supplemental Food Program for Women, Infants, and Children, or WIC (spring kindergarten);
- Receipt of TANF since child's birth and in last 12 months (spring kindergarten);
- Receipt of Food Stamps, also called SNAP (the Supplemental Nutrition Assistance Program), or food benefits on EBT (Electronic Benefit Transfer) during past 12 months (spring kindergarten); and
- Participation in Federal School Lunch or Breakfast Program (spring kindergarten).

Parent Income and Assets

Family income affects the family's material standard of living, neighborhood and housing quality, opportunities for stimulating recreation and cultural experiences, and the stress and psychological well-being of the parents. In the past 20 years, there has been increasing income inequality between the wealthy and the poor and these gaps have been widening since the Great Recession (Engel et al. 2016). Engel et al. (2016) compared children entering kindergarten in 1998 in the ECLS-K and in 2010 in the ECLS-K:2011 and found that children from low-income families were more disadvantaged in 2010 than in 1998 in multiple areas of well-being including an increase in receipt of food stamps and lower maternal unemployment. In addition, findings from this study showed that the percent of kindergartners whose families had incomes below the Federal poverty level increased from 22 percent in 1998 to 24 percent in 2010.

Children's academic and behavior outcomes have been related to household income. Children from more economically advantaged households tend to be more successful in the primary grades compared to their less advantaged peers (Alexander and Entwisle 1988). Any behavior and learning problems the child exhibits in the early grades are more likely to persist for children from economically disadvantaged families than for children in families with more financial resources (Ackerman, Brown, and Izard 2003). Reardon and Portilla (2016) compared data from the ECLS-K and the ECLS-K:2011 and found that while school readiness gaps narrowed between low- and high-income kindergartners, the income gap was over one standard deviation for children's reading and math skills and about a half a standard deviation for children's behavior. One area of concern is the impact of income volatility on children's development and adjustment to school. Duncan (1991) has found that many households with children under 5 experience extreme ups and downs in the amount of money available to the family, especially as a result of divorce or remarriage. Income is not a stable background characteristic but rather a dynamic force that will be measured longitudinally in the parent surveys in the ECLS-K:2024.

Parents will be asked to provide information on the following:

- Total family income for the year (spring kindergarten); and
- Tuition paid for the child's education (fall kindergarten).

Child Mobility, Closing, and Tracking Questions

In order to locate parents for future parent surveys, questions will be asked about whether parents plan to move in the next year as well as questions to collect parent contact information. This information will either be collected in the survey or on the MyECLS website.

The parent surveys will include questions about the following:

- Plans to move (fall kindergarten);
- Location and name of child's next school (fall kindergarten); and
- Contact persons to locate the parent (fall and spring kindergarten).

C.2.2.2 Constructs for the Abbreviated Parent Survey

The abbreviated survey collects important explanatory information about the child's household often used by researchers in exploring the variation in children's development, knowledge, and skills. In addition to select demographic characteristics, the abbreviated parent survey also includes important questions about the child's transition to kindergarten, the home educational environment, and family experiences with the coronavirus pandemic.

Construct justifications are presented above in section C.2.2.1. The abbreviated survey includes questions about the following:

- School Choice
  - How the respondent learned about the school where the child attends kindergarten
- Parent Involvement with the Child's Education
  - Transition to kindergarten activities
- Parent Beliefs and Expectations
  - Family concerns about the child's education given the coronavirus pandemic (i.e., how confident parents are that their child learned the skills they expected them to learn)
- Family structure

    - Household size
- Home language
    - Primary language spoken in the home
- Home Environment, Activities, and Cognitive Stimulation
    - Home learning activities (i.e., how frequently a family member engages in different learning activities with the child)
- Early Care and Education Arrangements
    - Participation in early care and education the year before kindergarten
- Parent Education and Human Capital
    - Highest level of education
- Parent Income and Assets
    - Household income

C.2.3 Spring First-Grade Parent Survey: Construct Coverage

Most constructs listed below for the first-grade parent survey are the same as those in the kindergarten parent survey (e.g., child's health and well-being) although some topics within constructs vary (e.g., parents are asked about the child's birth weight in kindergarten, but are asked about whether the child has asthma in the first-grade round). Literature reviews for constructs that are the same as those in kindergarten are not duplicated in this section.

Child Characteristics (if missing from previous rounds)

- Child's gender;
- Child's date of birth; and
- Child's race/ethnicity.

Parent's Involvement with the Child's Education

- Parent's choice of school for the child;
- School attendance (for homeschooled children);
- School-initiated contact with parents about behavior problems;
- Child had in- or out-of-school suspensions or expulsions;
- Parent report of the child's grades;
- How many times the child has been late for school;
- Parent attendance at parent-teacher conferences and meetings;
- Parent participation in school activities;
- School practices to communicate with parents and encourage involvement;
- School practices to provide an equal and culturally responsive environment;
- Whether school provides translated materials;
- Whether school methods of communication are in the respondent's native language;
- Parent satisfaction with the school;
- Barriers to involvement with the school;

- Perception of the amount of homework;
- How often parent or someone else helps the child with homework; and
- How often parent or someone else checked that the child completed homework.

School Avoidance

- The child's school avoidance.

Family Structure

- Number of household members age 18 and older;
- Number of household members age 17 and younger;
- Parents or guardians in the household;
- Family relationship of key parent figures to the child (e.g., adopted);
- Gender, age, and race/ethnicity of key parent figures;
- Number of household members who are siblings to the child;
- Number of household members who are grandparents to the child;
- Marital status of the primary caretakers; and
- Family structure change and loss (e.g., remarriage, divorce, and death).

Parent Characteristics

- Biological parent's gender, age, and race/ethnicity; and
- Parent's vital status (collected by asking about contact with a biological/adoptive parent who does not live in the household or collected when a parent/parental figure identified in a previous round is no longer in the household).

Home Environment, Activities, and Cognitive Stimulation

- Literacy materials in the home;
- Frequency of reading activities with the child;
- Reading by the child;
- Math activities;
- Availability and use of a home computer/digital device;
- How often the child uses a home computer/digital device for educational purposes;
- Amount of time the child plays video games;
- Tutoring;
- Children's organized activities (sports, music, art, etc.);
- Frequency with which the family eats meals together;
- Hours of child sleep and whether child has regular bedtime;
- Outside play and perception of how safe it is for children to play outside; and
- Library use.

Neighborhood

- Neighborhood safety.

Child's Social Skills, Problem Behaviors, and Approaches Toward Learning

- Approaches toward learning;
- Self-control;
- Social interaction;
- Externalizing problem behaviors: Impulsive/Overactive;
- Internalizing problem behaviors: Sad/Lonely;
- Affective empathy; and
- Emotional socialization.

Children's Executive Function

- Attention focusing; and
- Inhibitory control.

Critical Family Processes

- Social support; and
- Marital satisfaction.

Early Care and Education Arrangements

- Participation in ECE, by type of arrangement (e.g., relative, nonrelative, and center-based);
- Number of ECE arrangements, by type of arrangement (e.g., relative, nonrelative, and center-based); and
- Time the child spends in ECE arrangements.

Parental Discipline, Warmth, and Emotional Supportiveness

- Parenting stress;
- Parent-child communication; and
- Inconsistent discipline.

Involvement of Nonresident Parent

- Whether child has biological or adoptive parents who are not currently living in the household;
- Biological and adoptive parents' vital status;
- Time since last contact (either in person or by telephone, email, text, etc.) with biological/adoptive parents no longer living in household; and
- Frequency of contact in the last four weeks that was not in person (e.g., by telephone, email, text, etc.) with biological/adoptive parents no longer living in the household.

Child's Health and Well-Being

- History of receiving early intervention;
- Current receipt of services through an IFSP, IEP, or 504 plan;

- Ear infection history;
- Ear infections since kindergarten;
- Treatments used for ear infections;
- Asthma;
- Child's independence and ability to take care of him/herself;
- Behavioral and attention problems;
- Learning problems;
- Coordination problems;
- Activity level;
- Emotional or psychological difficulties;
- Communication problems;
- Vision and hearing problems;
- Glasses, hearing aids, cochlear implants;
- Diagnoses of disabilities and health conditions;
- Prescription medications;
- General health status;
- Routine health and dental care;
- Health insurance coverage;
- Exercise/physical activities;
- Services for disabilities; and
- Parent report of child's height and weight.

Parent's Psychological Well-Being and Health

- Respondent's general health status;
- Overall life stress;
- Increase in stress due to the coronavirus pandemic; and
- Discrimination.

Food Sufficiency and Food Consumption

- Ability to purchase food sufficient for family needs;
- Frequency that adults and children in the household do not have sufficient food, and
- Obtaining free groceries or meals because of money problems related to the coronavirus pandemic.

Parent Education and Human Capital

- Diplomas or degrees parent has obtained; and
- Parents' current school attendance.

Parent Employment

- Parents' current employment;
- Looking for work;
- Availability for work;
- Occupation and industry; and
- Active duty military service.

Welfare and Other Public Transfers

- Participation in the Federal School Lunch or Breakfast Program.

Parent Income and Assets

- Total family income for the year;
- Use of a government voucher to attend school; and
- Whether the family has had to leave their home because they could not afford it.

Child Mobility, Closing, and Tracking Questions

- Number of places lived;
- Length of time at current residence;
- Whether and why the family moved;
- Contact persons to locate the parent;
- Email address;
- Telephone number; and
- Permission to text.

C.3 Teacher Surveys

The ECLS-K:2024 plans to survey teachers in all rounds of ECLS-K:2024 data collection. Teachers will be asked to complete surveys in the following rounds of data collection: fall kindergarten, spring kindergarten, spring first grade, spring third grade, and spring fifth grade. This document will only discuss the fall kindergarten, spring kindergarten, and spring first-grade data collections.

In the study's initial rounds, the ECLS-K:2024 will collect information from the teachers of the sampled children in fall kindergarten, spring kindergarten, and spring first grade. The survey will collect information about the teacher's classroom, teaching methods, views on teaching, professional training, and professional background. The primary purpose of these data is to help describe the child's classroom experiences which may relate to children's social and academic development. The ECLS-K:2024 will also conduct a census of all kindergarten teachers in the sampled ECLS-K:2024 schools to produce nationally representative teacher-level estimates. In the nationally representative sample of teachers, teachers will be asked to complete the same teacher-level surveys as those completed by teachers of sampled children.

In addition, teachers will be asked to provide information on the study students who are in their classes, completing one survey for each ECLS-K:2024 child. The ECLS-K:2024 assessment battery provides an objective assessment of academic outcomes for the nationally representative sample of children. Teachers

can provide another perspective, albeit a less objective perspective, on children's abilities and behavior because they spend a great deal of time with the children under far more routine conditions.

Because the ECLS-K:2024 collects a very broad range of variables and collects that information longitudinally, it is well-suited to study simultaneously the relationships of several variables and thus assess the relative importance of particular schooling variables compared to other schooling and family background variables on important outcomes.

The ECLS-K:2024 classroom component will ask teachers to provide information on classroom and student characteristics, instructional practices, and their teaching qualifications and background. As noted above, in the kindergarten year there will be a nationally representative sample of teachers.

C.3.1 Kindergarten and First-Grade Teacher Surveys: Research Questions

Research questions related to the ECLS-K:2024 fall and spring kindergarten and spring first-grade teacher surveys items are shown below.

T-RQ1. How do instructional practices, content coverage, classroom resources, and methods of providing feedback differ across classrooms or schools? What are the consequences of those differences for children's academic and social development?

T-RQ2. How does diversity in the classroom regarding age, race/ethnicity, gender, disabilities, and number of kindergarten repeaters relate to other classroom characteristics? How do these class-level characteristics interact with children's own characteristics in the development of academic and social skills?

T-RQ3. How do teachers and schools handle the diversity of children's skills? How are children who receive specialized programs or services (e.g., English language learners, gifted and talented students, students with IEPs) taught? How might instructional differences for these students relate to academic and social outcomes?

T-RQ4. Do teachers' characteristics including sociodemographic characteristics, views on school "readiness," sense of efficacy, job satisfaction, perceptions of school climate, their educational background, certifications, including participation in alternate certification programs, or teaching experience influence children's outcomes, on average or in interaction with children's sociodemographic backgrounds?

T-RQ5. Do supports provided to teachers through mentorship and professional learning opportunities on evidence-based practices influence teachers' decision to remain in teaching?

T-RQ6. Do teachers' practices to involve parents result in higher levels of parent involvement?

T-RQ7. How do teacher's relationships with individual students differ? What are the consequences of those differences for children's academic and social development?

T-RQ8. What academic and socioemotional skills and behaviors (including activity level) do teachers report children having as they enter and go through school? Do these vary by family social background characteristics? How do these skills and behaviors change over time? How do cognitive and socioemotional skills covary?

T-RQ9. To what extent do teachers and other school staff use assessments to monitor students' progress on specific skills and identify those in need of interventions? What kinds of interventions are provided for struggling students and how much staff support and parent communication are there for these efforts?

C.3.2 Kindergarten Teacher Surveys: Construct Coverage

The fall and spring kindergarten teacher surveys in the ECLS-K:2024 are similar to the surveys used for the ECLS-K:2011. Details are shown below.

Classroom and Student Characteristics

The first set of constructs included in the ECLS-K:2024 kindergarten teacher surveys concerns the organizational features of the class. Whether the class is self-contained (one teacher teaching multiple subjects to the same class of students all or most of the day) or is configured differently (e.g., team teaching, departmentalized instruction, etc.) influences scheduling and curriculum coverage. Full-day kindergarten has become more prevalent over time, with enrollment growing from 11 percent of kindergartners in 1969 to 63 percent in 2002 (Ackerman, Barnett, and Robin 2005; Kauerz 2005) and 77 percent in 2018 (U.S. Department of Education 2020). Prior research tends to confirm that at the end of the school year, children who attend full-day kindergarten programs make more progress in their early reading skills than children who attend part-day programs (Cooper, Batts Allen, Pattall, and Dent 2010; Fusaro 1997; Thompson and Sonnenschein 2016; Walston and West 2004). The total number of children enrolled in a class is a widely used index of instructional quality at all levels of education. Class size is usually considered important because of the constraints it places on teacher-child interactions. The time available for individuation and small-group supervision is reduced as class size increases, and this is widely believed to result in lower student achievement levels.

The effort to educate all children in regular education programs presents challenges to teachers at all levels of education. Special populations include those with physical and cognitive disabilities, as well as ELL and gifted and talented children. The ECLS-K:2024 is well-positioned to collect information on how these children are served and the consequences of treatment differences.

In light of the growing number of ELL children in the country (up to 10.1 percent or 5 million students in the 2017-18 school year; Hussar et al. 2020), the ECLS-K:2024 has included many items for the teacher about the instructional programs for ELL children beyond what was used in the ECLS-K. In a related inquiry, using data from ECLS-K:2011, Sullivan, Houri, and Sadeh (2016) found that 27 percent of kindergartners in the 2011 sample were from immigrant families. Additionally, another study using ECLS-K:2011 data found that teachers reported higher perceived executive function skills in bilingual children in comparison to monolingual children (Castillo, Khislavsky, Altman, and Gilger 2020).

The range of specific disabilities included under the special education label makes it particularly important to find out how schools and teachers accommodate children with disabilities. As more schools move toward inclusion of children with disabilities in regular classrooms, data evaluating the extent and efficacy of these efforts need to be collected and evaluated. In fact, data indicate that the percent of special education students spending at least 80 percent of their time in general classes has increased to 64 percent in 2018 compared to 47 percent in 2000 (U.S. Department of Education 2020). The ECLS-K:2024 also asks teachers about the numbers of children who are frequently tardy or absent and to rate the overall behavior of their class.

In addition, these characteristics may be of specific interest as there may be variation related to the coronavirus pandemic in 2020 and 2021. For example, research suggests there was a kindergarten enrollment drop of in fall 2020 (Bassok and Shapiro 2021, Council of Chief State School Officers 2021). The downward enrollment may lead to an uptick in enrollment in fall 2021 or fall 2022 as families seek to begin kindergarten education for their child. This may mean that children entering kindergarten in fall 2022, fall 2023, and onward have different characteristics from prior cohorts of kindergartners. For example, enrollment trends for children entering kindergarten might skew older than prior cohorts or a

higher percentage may have no prior formal early education experience (Hollingsworth and Attanasio 2021, Council of Chief State School Officers 2021).

Teachers will provide information about classroom and student characteristics including:

- Class time (full/half day, hours per day, days per week);
- Program type (regular kindergarten, 2-year kindergarten, transitional program, etc.);
- Grade levels of classes the teacher teaches;
- Class demographics: class size, age distribution, race-ethnicity distribution, gender distribution, number repeating grade, percent experiencing homelessness or housing insecurity;
- Number of students who enter or leave during the school year;
- Students' reading and mathematics skills upon kindergarten entry;
- Number of language minority (LM) children and English-language learners (ELL) in the classroom;
- Number of children in the classroom receiving special services or in special programs (e.g., special education services, a gifted and talented program, remedial services);
- Number of students with IEPs or 504 plans;
- Languages used in the classroom;
- Instructional approach for English language learners;
- Number of children above or below grade level in reading and mathematics;
- Numbers of children with disabilities by disability type (e.g., autism, speech or language impairments, emotional disturbance, intellectual disability, developmental delay, vision impairment, hearing impairment); and
- Number of children tardy or absent on an average day.

Instructional Activities and Curricular Focus

Several studies suggest that large amounts of free play and unstructured time are negatively related to children's cognitive and language development (McCartney 1984; Ruopp et al. 1979). A large number of studies have emphasized the importance of "time on task" for student achievement (Greenwood 1991; Greenwood, Arreaga-Mayer, and Carta 1994; Wang, Haertel, and Walberg 1990). Children achieve more (as measured by achievement tests) in classrooms where a higher proportion of time is spent in academic instruction and where they are engaged in their work with few interruptions or few periods of unoccupied time (Crocker and Brooker 1986; Greenwood 1991; Powell 1992; Teddlie, Kirby, and Stringfield 1989). In fact, over time, kindergarten has been found to have increased in its academic focus. For example, using ECLS data from both the 1998 and 2011 kindergarten cohorts, Bassok, Latham, and Rorem (2016) found that in comparison to the 1998 cohort, kindergarten teachers in the 2011 cohort reported higher academic expectations for children, spent more time teaching literacy and math content, and spent more time in teacher-directed instruction. Teachers also reported spending substantially less time in their classrooms in other activities such as art, music, and child-selected activities.

However, engaging in child-directed, imaginative play develops many social, emotional, and cognitive competencies necessary for children's school success including perseverance, patience, and the ability to image the future (Singer and Singer 2006; Bergen and Fromberg 2009). Child development experts have noted with concern that elementary school children have less time to engage in free play as some schools

reduce recess time in favor of more instructional time and that this trend may have unintended negative academic consequences (e.g., Pellegrini and Bohn 2005; Bergen and Fromberg 2009) and physical consequences (Datar and Strum 2004). Using ECLS-K data, Datar and Sturm found that only 16 percent of schools had P.E. every day in kindergarten. Kindergartners spent almost an hour a week in P.E. class (57 minutes), while first-graders on average spent 8.2 minutes more. The study showed that P.E. programs helped girls who were overweight, or at risk for overweight, avoid becoming obese.

The research on scheduling and program organization suggests that programs that are carefully planned and structured and offer a balance between adult-directed and child-initiated activities may provide the highest quality environments for children (Hayes, Palmer, and Zaslow 1990). The Class Organization and Resources section of the teacher survey includes items about time for free-play and recess which, in conjunction with items about time for various subject matters and classroom activities, can provide data which may be useful to investigate this issue for today's kindergartners.

Teachers can use a variety of grouping arrangements, such as teacher directed whole-class, small-group, and individualized instruction, as well as child-selected activities to provide instruction in kindergarten classrooms. Whole-class activities emphasize uniformity over diversity of instruction (Lou et al. 1996). During whole-class instruction, teachers provide each of their students with the same learning experience by teaching the full group the same curriculum objective using the same instructional method.

In contrast, small-group instruction emphasizes diversity over uniformity of instruction. Small-group arrangements can be created in a variety of ways, including self-selection, random assignment, or teacher assignment based on students' skill and achievement levels. Heterogeneous small group arrangements may foster learning when higher performing students develop their explanatory skills by providing peer tutoring for the lower-performing students in their group (Lou et al. 1996). On the other hand, when students in small groups have a wide range of skills and abilities, group members may rely on the highest-performing student(s) to do most of the work, a strategy that results in less group interaction and less academic engagement for some members of the group.

In contrast to heterogeneous grouping, teachers may use within-class ability or achievement grouping to place students into smaller groups stratified by achievement, skill, or ability levels (Entwisle 1995; Karweit 1988; Lou et al. 1996; McCoach, O'Connell, and Levitt 2006; Slavin 1987). Compared with whole-class instruction, achievement grouping allows teachers to reduce heterogeneity and target instruction to match students' current level of knowledge and skills. Children's reading achievement group placement can determine the amount and type of instruction children receive, it can influence the group process through the amount of disruptions and interruptions, and it can affect teachers' and parents' views of children (Entwisle 1995; Slavin 1987). Opponents of achievement grouping express concerns that teachers may develop lower expectations for children in low achievement groups, that children in low achievement groups will fall further behind their higher-achieving classmates and never catch up academically, and that children's self-esteem will be adversely impacted (McCoach, O'Connell, and Levitt 2006).

In addition to whole-class and small-group instruction, teachers may provide individualized instruction to children or may allow them time to select their own classroom activities. During teacher-directed individual activities, teachers can work one-on-one with children to present new material or provide remedial assistance (Morrow, Strickland, and Woo 1999). Alternatively, teachers can provide children with time to self-select classroom activities, such as learning or play centers. Developmental, whole-language based classrooms tend to encourage child-selected activities based on the premise that they empower children to direct their own learning and choose activities in which they are interested (Xue and Meisels 2004)

The following constructs are used in the ECLS-K:2024 instruments to characterize teachers' curricular focus and how they organize their classes for instruction:

- Class activities outside of the regular class (library, lunch, and recess);
- Use of class time by subject area;
- Instructional time spent handling disruptive behavior;
- Culturally responsive teaching practices (e.g., display pictures reflecting all students' background, written communication to families in their native language, use of alternative formats of communication, screening materials for negative racial and ethnic stereotypes);
- Class organization (teacher-directed and child-selected activities);
- Use of achievement grouping, number of groups, and mobility between groups;
- Transition activities into kindergarten;
- Additional reading services;
- Use of languages other than English in the classroom (e.g., instruction in reading/literature, instruction in math, instructional support, directing student behavior, and conversation);
- Instructional activities with ELL children (assess/monitor language acquisition, assess literacy skills, intensive skills work in small groups, and peer assisted settings); and
- Use of homework.

Content Coverage for Language Arts, Mathematics, Science, and Social Studies Instruction

Early childhood experts recommend that children learn the following: the alphabetic principle, letter-sound correspondence, phonemic segmentation of sounds in words, vocabulary, concepts of words, rhyming patterns, decoding skills, writing skills, and relationships between oral and written language (NAEYC 1998; Morrow, Strickland, and Woo 1999; Neuman 2002; Snow, Burns, and Griffin 1998). Children also should learn the structural elements and organization of print (e.g., words, punctuation) and become familiar with the forms and formats of books and other print resources. In addition, reading experts recommend that teachers provide instruction in text comprehension that includes skills of retelling stories, responding to questions about story content, and identifying elements of story structure (Morrow, Strickland, and Woo 1999).

Researchers find positive relationships between children's exposure to reading curriculum and their reading achievement. A summary of research on effective reading instruction indicated that instruction on phonemic awareness, word study, and decoding skills in kindergarten was positively associated with children's reading development (Neuman 2002). Snow and colleagues' 1998 synthesis of research on reading instructional practices stated that children who received instructional training in letter knowledge and phonological awareness (i.e., knowledge that words are composed of smaller speech elements) learned to read more quickly than those without such training. A study using ECLS-K data showed that children's gains in reading achievement over the kindergarten year were positively related to the frequency that teachers provided instruction on letter-sound skills (e.g., alphabet and letter recognition, rhyming words, letter-sound matching) and reading and writing skills (e.g., vocabulary, composing and writing sentences, reading multi-syllable words, composing stories with a beginning, middle, and end, and using capitalization and punctuation) (Guarino et al. 2006). On the other hand, the frequency of instruction in comprehension strategies (e.g., identifying main parts of stories, making predictions based on text, understanding common prepositions) was not significantly related to reading gains in kindergarten.

The ECLS-K:2024 content coverage questions combine content that is included on the ECLS-K:2024 child assessment batteries with other skills that elementary school teachers cite as central to the elementary school curriculum. The ECLS-K:2024 teacher survey measures what is taught, how often it is taught, and how it is taught (i.e., using what materials and activities).

The following constructs measure students' opportunities to learn in various academic subjects.

- Time spent on specific activities and skills in reading/language arts and in mathematics; and
- Topics taught in social studies and science.

Resources/Materials

Team teaching, where two teachers work together with a single class, and use of instructional aides allow for greater individuation of instruction and personal attention. Characteristics of the aides (especially level of fluency in English and educational background) are relevant for how well they can perform educational tasks. The number of adults and the number of children have been combined in studies focusing on the consequences of teacher-to-student ratios for classroom management and student outcomes.

In schools that are obliged to enroll more children than they were constructed to accommodate, class size may cause serious problems. Similarly, classes are likely to vary in terms of the availability of instructional materials and supplies. Because standards of adequacy for many resources depend on many conditions, to the ECLS-K:2024 will ask the teachers about the degree to which they believe various resources are adequately provided to their classes.

The following items are used to characterize a classroom in terms of the availability of adults in the classroom and the adequacy and availability of physical space and materials:

- Classroom aides (paid aides and volunteers); and
- Availability, use, and adequacy of instructional materials.

Student Evaluation

The incentives for children to learn and behave properly in class consist of both formal and informal arrangements. For children at the earliest ages, the incentives are mainly receipt of praise from adults and recognition from peers, while sanctions consist primarily of disapproval. Formal arrangements include grades, progress reports to parents, portfolios, and report cards. For these mechanisms, the most important variables are the criteria for grading, the frequency of feedback, and whether constructive advice on how to improve is included. Martínez, Stecher, and Borko (2009) used ECLS-K data and found third- and fifth-grade teachers' ratings of students' mathematics achievement correlated strongly with the direct assessments, however this relationship varied by certain classroom assessment practices which suggested that teachers evaluate student performance relative to other students in the school.

One measure of child evaluation is included in the ECLS-K:2024:

- Use of standardized tests

Parent Involvement

Research has increasingly emphasized the importance of parental involvement in explaining differences in student educational outcomes (Schneider and Coleman 1993; Hoover-Dempsey and Sandler 1997; Gonzalez-DeHass, Willems, and Holbein 2005; Ma, Shen, Krenn, Hu, and Yuan, 2016). This is also true for the growing population of Hispanic children in the United States. For example, a meta-analysis of 28 studies found a significant relationship between parental involvement and academic achievement for kindergarten through fifth-grade students (Jeynes 2017). Constructs included in the ECLS-K:2024 in this area include the following:

- Communication with parents about children's performance; and
- Parent involvement in school activities (volunteering, attending meetings, other activities).

Collegial Relations and Opportunities for Professional Development

The importance of collegial relations among teachers and instructional leadership from the principal and administration are two additional areas that have been studied in the literature with respect to mediated student outcomes for decades (Edmonds 1979; Kilgore and Pendleton 1993; Bidwell and Bryk 1994; Talbert and McLaughlin 1994; Wimberley 2011).

Many teachers receive in-service training designed to improve teaching techniques and content knowledge. Although reliable information on the specific content of the programs would be difficult to collect, the ECLS-K:2024 can find out about the kinds of in-service training in which teachers have participated and the extent to which they consider that training useful.

In addition to needing time for professional development, teachers need time to plan and prepare their daily lessons. Elementary teachers have traditionally had very limited planning time, a point of some concern for some as reform proposals call for additional work from teachers outside of their instructional time. When that planning time is conducted collaboratively, it has been shown to relate positively to student outcomes. For example, Goddard, Goddard, and Tschannen-Moran (2007) found that fourth graders achieved higher scores in mathematics and reading when they attended schools categorized as higher in teacher collaboration in a sample of more than 45 elementary schools.

In another example, Reeves, Pun, and Chung (2017) examined Trends in International Mathematics and Science Study (TIMMS) data and found that teacher collaboration during lesson planning significantly predicted student achievement. Additionally, when teachers spent time visiting other classrooms it corresponded to higher job satisfaction ratings.

In addition to teacher time in quality training and planning experiences, school leadership has also been found to relate to positive outcomes for teachers and students (Leithwood et al. 2004; Supovitz et al. 2010). For example, Waters, Marzano, and McNulty (2003) conducted a meta-analysis of 70 studies and found that leadership characteristics such as knowledge of curriculum, instruction, and assessment all significantly predicted student learning.

The following constructs measure collegial relations and opportunities for staff development:

- Mentorship activities;
- Frequency of meeting with other teachers and specialists; and
- Professional learning activities on evidence-based practices.

Teachers' Views on Teaching, School Climate, and Environment

Teachers' satisfaction with the amount of autonomy afforded to them and the amount of support they feel has a strong effect on their overall job commitment and interaction styles with children (Manlove 1993; Rosenthal 1991; Webb and Lowther 1993). A teacher's sense of professional efficacy is associated with student outcomes. In the ECLS-K:2024, teachers' autonomy, input into school policies, and sense of efficacy will be measured. These can then be used to address questions having to do with how these relate to teaching practices and ultimately to child outcomes, such as the following:

- School climate;
- Job satisfaction;
- Teachers' sense of efficacy; and
- Views on transition into kindergarten activities and school "readiness."

Teacher Background

Teacher demographics are mainly of interest in the context of fit with children's backgrounds. Although teacher race-ethnicity and gender have not been shown to make much difference to student achievement generally, they may interact with student background variables to produce interesting results. Gershenson, Holt, and Papageorge's 2016 study on the relationship between student-teacher demographic mismatch and teachers' expectations for students found that student-teacher racial mismatch reduced teachers' expectations for Black students.

Another teacher background variable of interest is teacher preparation and training. Although studies have found substantial variation in teacher training at the preschool level, the differences tend to be smaller at the elementary level. Moreover, the differences that are found on such conventional yardsticks as highest degree earned and major field of study are at best weakly related to student cognitive outcomes (Hedges, Laine, and Greenwald 1994). Nonetheless, these indicators continue to be used as bases for salary differences and hiring decisions and items on these topics will be included in the ECLS-K:2024.

The teacher's years of teaching experience is also a variable that is taken very seriously in schools but that has only weak systematic relationships with student test scores (Hedges, Laine, and Greenwald 1994).

The following demographic, training, and experience variables will be collected as part of the ECLS-K:2024:

- Teacher's gender, age, and race/ethnicity;
- Teaching experience, by school and grade;
- Teacher's education, including degrees and credentials/licenses;
- Type of teaching certification held;
- Type of certification program completed;
- National Board certification; and
- Intention to remain in teaching.

Child-Specific: Enrollment Information

The teacher will provide child-specific information about important characteristics of the child's:

- Kindergarten program type;

- Current grade level;
- Child's retention status;
- Length of time child has been enrolled in the classroom;
- Number of school absences;
- Teacher's subject-area teaching assignment for child; and
- Kindergarten transition.

Child-Specific: Evaluation of Child's Skills, Knowledge, and Behavior

Teachers' reports of children's academic skills augment the information obtained in the direct cognitive assessments. Teachers provide ratings of the skills the child demonstrates in the classroom in literacy/reading, mathematics, and science. These cover many constructs that are not directly assessed including writing behaviors in kindergarten and science skills. These constructs were assessed using teacher reports in the ECLS-K and ECLS-K:2011, although the content of some items was updated to reflect current curricular focus. Teachers will also rate children's early language skills (e.g., how well they communicate ideas clearly, ask for information, initiate and maintain conversations, etc.). These teacher ratings of how frequently children exhibit specific early language skills are new to the ECLS-K:2024. These ratings are based on teacher observation of the child's functional use of language in the natural classroom setting and will supplement findings from the direct child assessments and expand ratings in the area of early language skills.

Teachers will also rate children in their classroom on social skills and classroom behaviors, including children's ability to regulate their behavior in classroom contexts, problem behaviors (e.g., fighting, arguing, anger, depression, low self-esteem, impulsiveness, etc.), and learning dispositions or "approaches to learning" (e.g., curiosity, self-direction, and organization). The approaches to learning items and the problem behavior items are important socioemotional behaviors have been incorporated into a wide variety of research done with the ECLS-K and ECLS-K:2011 data. For example, using data from the ECLS-K, Ready et al. (2005) found that girls had an advantage in literacy/reading skills in kindergarten and their more positive approaches to learning explained almost two-thirds of the advantage. Externalizing behavior problems are more prevalent in boys, but this did little to explain the gender gap in reading literacy development in kindergarten. Using data from the ECLS-K:2011, researchers have found significant relationships between approaches to learning and several other measures (e.g., ability grouping in kindergarten through third grade, Catsambis and Buttaro 2012; reading and mathematics achievement in grades 3 and 5, (Bodovski and Youn 2011, Li-Grining et al. 2010; and bilingualism, Han 2010)). Lim and Kim (2011) found that social behaviors measured in kindergarten were crucial to reading skill development through fifth grade. Morgan et al. (2008) confirmed their hypothesis that behavior problems and poor reading skills are risk factors for each other. That is, behavior problems in first grade predicted poor reading skills in third grade, and poor reading skills in first grade predicted behavior problems in third grade. Teacher ratings of social skills and classroom behaviors for the ECLS-K:2024 overlap with what was collected in the ECLS-K and ECLS-K:2011, but with some new updated items. The ECLS-K:2024 will also include a new measure of classroom behavioral self-regulation that assesses the behavioral aspects of self-regulation that are important for success in classroom contexts. The classroom behavioral regulation items are new to the ECLS-K:2024.

The ECLS-K:2024 will also include teacher measures related to children's executive function, as it did in the ECLS-K:2011. As discussed above for the parent survey, research shows the importance of executive function for learning and academic achievement (e.g., Blair and Razza 2007; Posner and Rothbart 2006).

The ECLS-K:2024 will include measures of attention focusing and inhibitory control in the kindergarten teacher survey, as was done in the ECLS-K:2011.

As discussed in the parent survey section above, children's feelings about school have been linked to their achievement and educational progress over time. For example, Ladd, Buhs, and Seid (2000) found that children's feelings about school can influence school adjustment and participation and engagement in school, which can impact achievement and educational progress over time. Thus, the child-level teacher surveys will include a teacher-report measure of child school liking. These items were added to the ECKS-K:2011 in the spring fourth-grade teacher questionnaire. Based on the recommendation of the Technical Review Panel for the ECLS-K:2024, these items were added to the kindergarten and first-grade child-level teacher surveys.

Teachers will be asked about children's problem-solving skills using items that assess strategic planning (McDermott 2018; McDermott et al. 2011). These items are new to the ECLS-K:2024. Planning and problem-solving are interrelated skills that are both needed for scientific reasoning and critical thinking. Planning is a complex "set of mental and behavioral operations that brings together cognitive, emotional, and motivational resources in the service of reaching desired goals" (p. 3, Friedman and Scholnick 1997). Current curriculum standards emphasize the importance of hands-on learning and the need to engage children in critical thinking and problem solving in science learning. For example, the Next Generation Science Standards[3] indicate that students are expected to demonstrate grade-appropriate proficiency in such things as asking questions, planning and carrying out investigations, designing solutions, and communicating information. The National Science Teacher Position Statement for elementary science education explains that high-quality science instruction moves students from curiosity to interest to reasoning (Moulding, Bybee, and Paulson 2015), and that students need opportunities to observe phenomena, engage in problem solving, and provide explanations of their thinking. The strategic planning items ask teachers to rate students on such skills as understanding cause and effect, developing strategies to solve problems, self-correcting errors when a plan does not work, and communicating information about the problem-solving process.

Peer relationships are also an important predictor of children's later social-psychological adjustment (e.g., Parker and Asher 1987). Different patterns of peer relationships can signal behavioral risk or competence. A primary risk factor is whether a child is rejected by peers. Peer rejection is when the child is disliked or excluded by one's peer group. Peer rejection predicts maladaptive behaviors in childhood such as school disengagement and underachievement (e.g., Buhs, Ladd, and Herald 2006), but it can also have consequences later in adolescence and adulthood such as criminality, poor psychological health, and underachievement (e.g., Parker and Asher 1987).

In contrast, children who exhibit prosocial behaviors with peers such as helping others, showing concern, and being kind are more socially competent with peers. The ability to exhibit prosocial behaviors with peers predicts the child's ability to form and maintain positive relationships (see Coie and Kupersmidt 1983) and predicts later psychological health (e.g., Eisenberg, Faves, and Spinrad 2006).

Child-specific skills, knowledge, and behaviors covered in the child-level teacher surveys are the following:

- Language and literacy skills and knowledge;
- Mathematical thinking skills and knowledge;

[3] See www.nextgenscience.org for further information. The Next Generation Science Standards (NGSS) is a multi-state effort to create new science education standards for grades K-12 that are grounded in the most current research on science and scientific learning, which was outlined in the report *Framework for K-12 Science Education* that was released in 2011 from the National Academies of Science, a non-governmental organization whose mission is to advise the nation on scientific and engineering issues. In 2013, the NGSS were released for states to consider for adoption.

- Science skills and knowledge;
- Child's functional use of language in the classroom;
- Social skills and approaches to learning;
- Classroom behavioral regulation;
- Attention focusing and inhibitory control;
- Child behaviors relevant to school liking and avoidance;
- Referral of child out of classroom for behavior;
- Strategic planning;
- Peer relationships;
- Overall rating of academic skills in reading, writing, oral language, math, science, and social studies;
- Child's instructional group placement in reading and math;
- Child's activity level (e.g., during structured and unstructured play); and
- Child's academic difficulties.

Child-Specific: Special Services and Programs

Although some children spend all of their time in separate special education classes or schools, many children move in and out of a regular class daily, receiving services in pull-out classes and returning to the classroom for the rest of the day. The ECLS-K:2024 data on special education placement and practices will provide critical information about the range and effectiveness of various special services. These constructs include:

- Receipt of special services (e.g., pull-out or in-class grouping for regular or remedial services, individual tutoring, ELL services, speech-language therapy, other special education programs, programs for children with behavioral/emotional problems, gifted/talented instruction);
- Child's ELL status;
- Child's IEP/IFSP status;
- Child's Section 504 plan status; and
- Testing accommodations and participation.

Child-Specific: Parent Involvement

Parental involvement in children's education can have an important influence on school outcomes for children (Stallings and Stipek 1986; Hoover-Dempsey and Sandler 1997; Gonzalez-DeHass, Willems, and Holbein 2005). Teachers' report of the study child's parent's participation at school and communication with the teacher can supplement parents' report of involvement in school to offer a picture of parent involvement from both perspectives.

The ECLS-K:2024 items that collect information on school-family-community connections from the teacher include those on the topic of:

- Parents' involvement in children's schools and education; and
- Parent-teacher communication.

Child-Specific: Teacher-Child Relationships

When the child-teacher relationship is warm and free from conflict, children are most apt to have academic and social success in elementary school. This is especially true for children who might otherwise be at risk of academic or social problems in school (Pianta and Stuhlman 2004; Peisner-Feinberg et al. 2001). Like the ECLS-K:2011, the ECLS-K:2024 will include a measure of the teacher-child relationship which will be used to help researchers further understand the role that this important relationship plays in children's adjustment to school and learning outcomes.

The teacher will answer questions about:

- Level of closeness between child and teacher; and
- Level of conflict between child and teacher.

C.3.3 Spring First-Grade Teacher Surveys: Construct Coverage

The spring first-grade teacher surveys in the ECLS-K:2024 are similar to the surveys used for the ECLS-K:2011. Details are provided below. Literature review of constructs that are the same as those in kindergarten are not duplicated in this section.

Classroom and Student Characteristics

Teachers will provide information about classroom and student characteristics including:

- Class time (full/half day, hours per day, days per week);
- Grade levels of classes the teacher teaches;
- Class demographics: class size, age distribution, race-ethnicity distribution, gender distribution, number repeating grade, percent experiencing homelessness or housing insecurity;
- Number of students who enter or leave during the school year;
- Number of language minority children and English language learners (ELL) in the classroom;
- Number of children in the classroom receiving particular services or in special programs (e.g., special education services, a gifted and talented program, remedial services);
- Number of students with IEPs or 504 plans;
- Languages used in the classroom;
- Instruction for English language learners;
- Number of children above or below grade level in reading and mathematics;
- Numbers of children with disabilities by disability type (e.g., autism, speech or language impairments, emotional disturbance, intellectual disability, developmental delay, vision impairment, hearing impairment);
- Number of children tardy or absent on an average day; and
- PTA/PTO contributions to the classroom (e.g., books, technology, art supplies, field trips).

Instructional Activities and Curricular Focus

The following constructs will be used in the ECLS-K:2024 to characterize teachers' curricular focus and how teachers organize their classes for instruction:

- Class activities outside of the regular class (library, lunch, and recess);

- Use of class time by subject area and time spent handling disruptive behavior;
- Socioemotional competencies taught;
- Behavior support practices;
- Culturally responsive teaching practices (e.g., display pictures reflecting all students' background, written communication to families in their native language, use of alternative formats of communication, screening materials for negative racial and ethnic stereotypes);
- Class organization (teacher-directed and child-selected activities);
- Use of achievement grouping, number of groups;
- Additional reading services;
- Use of languages other than English in the classroom (e.g., instruction in reading/literature, instruction in math, instructional support, directing student behavior, and conversation);
- Instructional activities with ELL children (assess/monitor language acquisition, assess literacy skills, intensive skills work in small groups, and peer assisted settings); and
- Use of homework.

Content Coverage for Language Arts, Mathematics, Science, and Social Studies Instruction

The following constructs will be included in the ECLS-K:2024 to measure students' opportunities to learn in various academic subjects.

- Time spent on specific skills and activities in reading/language arts and in mathematics; and
- Topics taught in social studies and science.

Resources/Materials

Topics to assess the following will be used to characterize the ECLS-K:2024 students' classroom resources and materials:

- Classroom aides (paid aides and volunteers); and
- Availability, use, and adequacy of instructional materials.

Student Evaluation

The following are measures of child evaluation that will be included in the ECLS-K:2024:

- Student factors assessed (e.g., individual achievement relative to class, individual achievement relative to state or professional standards of student learning, individual achievement relative past performance, effort, class participation, and class behavior);
- Methods of assessing children's progress; and
- Use of standardized tests.

Parent Involvement

Constructs to be included in the ECLS-K:2024 in the area of parent involvement include the following:

- Communication with parents about children's performance; and
- Parent involvement in school activities (volunteering, attending meetings, other activities).

Collegial Relations and Opportunities for Professional Development

Data will be collected on the following constructs to measure collegial relations and opportunities for staff development:

- Mentorship activities;
- Frequency of meetings with other teachers and specialists; and
- Professional learning activities on evidence-based practices.

Teachers' Views on Teaching, School Climate, and Environment

The ECLS-K:2024 will include items assessing teachers' views, which can be related to teaching practices and ultimately to child outcomes, such as the following:

- School climate;
- Job satisfaction; and
- Teachers' sense of efficacy.

Teacher Background

The following demographic, training, and experience information will be collected as part of the ECLS-K:2024:

- Teacher's gender, age, and race/ethnicity;
- Teaching experience, by school and grade;
- Teacher's education, including degrees and credentials/licenses;
- Type of teaching certification held;
- Type of certification program completed;
- Board certification; and
- Intention to remain in teaching.

Child-Specific: Enrollment Information

The teacher will provide child-specific information about important characteristics of the child's:

- Current grade level;
- Retention status;
- Length of time enrolled in the classroom;
- Number of school absences; and
- Teacher's subject-area teaching assignment for child.

Child-Specific: Evaluation of Child's Skills, Knowledge, and Behavior

As in kindergarten, first-grade teachers' reports of children's skills, knowledge, and behavior will augment the information collected using the direct cognitive assessments. The spring first-grade teacher surveys will include constructs similar to the ECLS-K:2024 kindergarten teacher surveys and similar to the ECLS-K:2011 first-grade teacher surveys. Teachers will be asked some of the same questions asked of first-grade teachers in ECLS-K:2011, and new questions will also be added. Details are provided below.

As in the kindergarten teacher surveys, first-grade teachers will provide ratings of the skills the child demonstrates in the classroom in literacy/reading, mathematics, and science. Some items are identical to what was collected in the ECLS-K:2011 in first grade, and some items are identical to items from the kindergarten round of the ECLS-K:2024. Some of the skills rated in the academic rating scales for the ECLS-K:2024 are new to reflect new curriculum standards.

The following sets of ratings will be in both the kindergarten and first-grade teacher surveys: functional language skills, social skills, approaches to learning, classroom behavioral regulation, attentional focusing, inhibitory control, the child's school liking behaviors, strategic planning, and peer relationships. See section C.4.2 for additional information on first-grade constructs that are also obtained in kindergarten.

Information on peer victimization was collected from teachers and parents in the ECLS-K:2011 starting in second grade. In the ECLS-K:2024, teachers in the first-grade data collection will be asked about peer victimization, using items that were asked in the ECLS-K:2011. Peer victimization can be a problem for school-aged children. A report of school safety and crime, which included student reports of bullying, a construct closely related to peer victimization, found that about 28 percent of middle and high school students reported being bullied once or twice at school in the 2010-11 school year (Robers, Kemp, and Truman 2013). However, the study also found that a lower percentage of students reported being bullied in 2011 than in 2007 (32 percent of students in the 2006-07 school year). Fewer studies have been done with younger children, but those that have been published suggest that bullying is experienced by many children and is related to negative child outcomes. Glew et al.'s (2005) study of third through fifth graders found that 22 percent of children were classified as victims, bullies, or both. Victims, and children who were both bullies and victims, had lower achievement scores and were more likely to feel like they did not belong at school compared to bystanders who observed the bullying but who were not direct victims of the bullying (Glew et al. 2005). Kochenderfer and Ladd (1996) found a relation between victimization and school adjustment outcomes, with victimization related to children's loneliness and desire to avoid school. Given these findings and White House anti-bullying initiatives, it is important to collect information about peer victimization in the ECLS-K:2024's national sample of elementary school children. Collecting teacher-report data in addition to parent-report data allows for the examination of peer victimization in different contexts and reduces the effect of single-method bias in measuring this construct.

Child-specific skills, knowledge, and behaviors covered in the child-level first-grade teacher survey are:

- Language and literacy skills and knowledge;
- Mathematical thinking skills and knowledge;
- Science skills and knowledge;
- Child's functional use of language in the classroom;
- Social skills and approaches to learning;
- Classroom behavioral regulation;
- Attention focusing and inhibitory control;
- Child behaviors relevant to school liking and avoidance;
- Referral of child out of classroom for behavior;
- Strategic planning;
- Peer relationships;

- Overall rating of academic skills in reading, writing, oral language, math, science, and social studies;
- Child's instructional group placement in reading and math;
- Child's activity level (e.g., during structured and unstructured play); and
- Child's academic difficulties.

Child-Specific: Special Services and Programs

These constructs include:

- Receipt of special services (e.g., pull-out or in-class grouping for regular or remedial services, individual tutoring, ELL services, speech or language therapy, other special education programs, programs for children with behavioral/emotional problems, gifted/talented instruction);
- Child's ELL status;
- Child's IEP/IFSP status;
- Child's Section 504 plan status; and
- Testing accommodations and participation.

Child-Specific: Parent Involvement

The ECLS-K:2024 items that collect information on school-family-community connections from the teacher will include:

- Parents' involvement in children's schools and education; and
- Parent-teacher communication.

Child-Specific: Teacher-Child Relationships

The teacher-child relationship will be measured in the spring first-grade child-level teacher survey. The teacher will answer questions about:

- Level of closeness between child and teacher; and
- Level of conflict between child and teacher.

C.4 Special Education Teacher Surveys

Like their general education counterparts, special education teachers and service providers will be asked to complete surveys. The special education teacher teacher-level survey will gather data on the teacher or service provider's background training, experience, and roles. The teacher child-level survey collects information on students' disabilities, services, and goals; and the teacher-child relationship. The items are parallel to those on the general classroom teacher's teacher-level survey.[4] In the child-level, teachers or service providers are asked to complete one survey for each ECLS-K:2024 child who has an IEP.

C.4.1 Kindergarten Special Education Teacher Surveys

C.4.1.1 Kindergarten Special Education Teacher Surveys: Research Questions

SE-RQ1. What are the types of service delivery models in place for special education? How do program variations relate to differences in children's academic or social development?

[4] In cases where the general education teacher is also the child's service provider, the general education teacher will be the respondent to both surveys. In this situation, items common to the general education and special education surveys will be skipped in the special education survey, to lessen respondent burden.

SE-RQ2. What is the prevalence of different types of disabilities among children in elementary school? What types of services, instructional strategies, and assistive technologies are provided to children with different types of disabilities?

SE-RQ3. Do children receive special education services before kindergarten? How do service variations relate to differences in children's school readiness, and academic and social development?

SE-RQ4. What transition activities take place from prekindergarten to kindergarten? How do those transition activities relate to differences in children's academic or social development?

SE-RQ5. How is inclusion related to children's progress through the early grades?

SE-RQ6. Do special education teachers' or services providers' characteristics including sociodemographic characteristics, sense of efficacy, job satisfaction, perceptions of school climate, their educational background, certifications including participation in alternate certification programs, or teaching experience influence children's outcomes, on average or in interaction with children's sociodemographic backgrounds?

SE-RQ7. How do special education teachers or service providers and schools handle the diversity of children's skills? How are children with disabilities taught? What instructional practices and classroom resources are used?

SE-RQ8. Are special education teachers' or service providers' practices to involve parents associated with student outcomes?

SE-RQ9. How do special education teachers' or service providers' relationships with individual students differ? What are the consequences of those differences for children's academic and social development?

C.4.1.2 Kindergarten Special Education Teacher Surveys: Construct Coverage

Special Education Teacher or Service Provider's Background

Information on special education teachers' and service providers' demographic backgrounds, education, certification, and teaching experience are of interest to researchers because they provide contextual information about the child's learning environment. Other teacher or provider information, such as self-reports of their professional efficacy and their workload (e.g., number of students they serve, teaching assignment and position), may influence their interactions with students and student outcomes.

The following demographic, training, and experience information will be collected from special education service providers of ECLS-K:2024 children:

- Teacher's or service provider's gender, age, and race/ethnicity;
- Total years of experience as a teacher or service provider;
- Total years as a special education teacher or service provider;
- Total years teaching or providing services at the study school;
- Teacher's or service provider's education, including degrees, credentials/licenses, and coursework;
- Teacher's or service provider's position and assignment;
- Locations in which the teacher or service provider delivers services, including virtual services;
- Teacher's or service provider's job satisfaction/sense of efficacy;

- Availability and use of instructional and information technology; and
- Teacher's or service provider's caseload: number of students with IEPs with whom the teacher or service provider works during a typical week and those students' background characteristics.

Child-specific: Disabilities and Timing of Eligibility

Information will be collected on the disabilities of the students served. Numerous studies have suggested that students from different demographic groups based on gender, socioeconomic status, and race/ethnicity are over identified for special education in some disability categories, suggesting bias in referral and assessment practices. However, other studies, including some using ECLS-K data, suggest that students from racially and ethnically diverse backgrounds are underrepresented in special education once researchers control for other factors, such as socioeconomic status (Cruz and Rodl 2018). Disproportionality is an active area of policy-related research, which ECLS-K:2024 will inform directly. In a related and widely discussed study using ECLS-K data, Morgan and his colleagues (2010) analyzed the effectiveness of special education services by examining whether matched comparison groups of children receiving and not receiving special education services displayed differences in reading or mathematics skills, learning-related behaviors, or problem behaviors. Collectively, results indicated that receipt of special education services had no statistically significant effects. A similar non significance was also found with regard to adulthood outcomes including educational attainment, social adjustment, economic self-sufficiency, and physical health, compared to individuals with the same likelihood of receiving but not receiving services as children (Kanaya, Wai, and Miranda 2019). These studies point to the importance of further research on children's disabilities and receipt of special services and programs.

It is also important to understand when children were identified for special education, since prior research suggests that preschool services improve educational outcomes for children with disabilities, including a reduced likelihood of repeating kindergarten, enhanced likelihood of meeting minimum literacy competencies enhanced cognitive skills, and enhanced behavioral outcomes (Lo Casale-Crouch et al., 2008; Schulting, Malone, and Dodge 2005).

Such information is best collected from the child's special education teacher because he/she is most familiar with the child's IEP and the types of services, accommodations, and assistive technology used with the child.

The kindergarten child-level special education teacher survey asks the teacher or service provider to provide the following student-level information:

- Whether the child is receiving special education services through an IEP;[5]
- Whether the child had an IEP or IFSP before kindergarten;
- Whether the teacher or service provider reviewed the child's records related to special education services;
- Transition activities between preschool and kindergarten; and
- Child's disabilities.

Child-specific: Services

The kindergarten child-level special education teacher survey also asks for information about the services students receive, including:

- Type and amount of special education services the child receives;
- Child's classroom placement;

[5] This item is designed to ensure that the respondent is answering the correct survey.

- Teaching methods and materials used with the child, including assistive technologies;
- Communications with other teachers about the child; and
- Communication with the child's parents.

Child-specific: Goals and Achievement

The kindergarten child-level special education teacher survey will also ask the teacher or provider to provide information about the child's IEP goals and achievement, including:

- Individual evaluations to develop IEP goals;
- Extent to which the IEP goals have been met;
- Extent to which the child is expected to meet general education goals and participate in grade-level assessments; and
- The child's expected educational attainment.

Child-specific: Teacher- or Service Provider-Child Relationships

Like the ECLS-K:2011, the ECLS-K:2024 will include a measure of the teacher- or service provider-child relationship which will be used to help researchers further understand the role that this important relationship plays in children's adjustment to school and learning outcomes.

The teacher or service provider will answer questions about:

- Level of closeness between child and teacher or service provider; and
- Level of conflict between child and teacher or service provider.

C.4.2 Spring First-Grade Special Education Teacher Surveys

Like their regular classroom teacher counterparts, teachers or service providers who provide special education and related services to study participants will be asked to complete surveys in the spring first-grade data collection. The items are parallel to those on the general education teacher survey and similar to those from the kindergarten special education teacher survey. The first survey, the special education teacher teacher-level survey, gathers data on the teacher's or service provider's background training, experience, and roles. The second, child-level survey collects information on students' disabilities, services, and goals; and teacher-child relationship. In the child-level survey, teachers and service providers are asked to share information on the study participants with whom they work, completing one form for each ECLS-K:2024 child who has an IEP.

C.4.2.1 Spring First-Grade Special Education Teacher Surveys: Research Questions

SE-RQ1. What are the types of service delivery models in place for special education? How do program variations relate to differences in children's academic or social development?

SE-RQ2. What is the prevalence of different types of disabilities among children in elementary school? What types of services, instructional strategies, and assistive technologies are provided to children with different types of disabilities?

SE-RQ3. How is inclusion related to children's progress through the early grades?

SE-RQ4. Do special education teachers' or services providers' characteristics including sociodemographic characteristics, sense of efficacy, job satisfaction, perceptions of school climate, their educational background, certifications including participation in alternate certification programs, or teaching experience influence children's outcomes, on average or in interaction with children's sociodemographic backgrounds?

SE-RQ5. How do special education teachers or service providers and schools handle the diversity of children's skills? How are children with disabilities taught? What instructional practices and classroom resources are used?

SE-RQ6. Are special education teachers' or service providers' practices to involve parents associated with student outcomes?

SE-RQ7. How are children identified for receipt of special education services? What transition activities take place from prekindergarten to first grade, and how do those transition activities relate to differences in children's academic or social development?

SE-RQ8. Are special education teachers' or service providers' practices to involve parents associated with student outcomes?

SE-RQ9. How do special education teachers' or service providers' relationships with individual students differ? What are the consequences of those differences for children's academic and social development?

C.4.2.2 Spring First-Grade Special Education Teacher Surveys: Construct Coverage

Special Education Teacher or Service Provider Background

Information on teacher or service providers' demographic backgrounds, education, certification, and teaching experience are of interest to researchers because they provide contextual information about the child's learning environment. Other teacher or service provider information, such as reports of their professional efficacy and their workload (e.g., number of students they teach/serve, teaching assignment and position), may influence their interactions with students and student outcomes.

The following demographic, training, and experience variables will be collected from special education teachers and service providers of ECLS-K:2024 children:

- Teacher's or service provider's gender, age, and race/ethnicity;
- Total years teaching experience as a teacher or service provider;
- Total years as a special education teacher or service provider;
- Total years teaching or providing services at the study school;
- Teacher's or service provider's education, including degrees, credentials/licenses, and coursework;
- Teacher's or service provider's position and assignment;
- Locations in which the teacher or service provider delivers services, including virtual services;
- Teacher's or service provider's job satisfaction/sense of efficacy;
- Availability and use of instructional and information technology; and
- Teacher's or service provider's caseload: number of students with IEPs with whom the provider works during a typical week and those students' background characteristics.

Child-specific: Disabilities and Timing of Eligibility

Like the spring kindergarten special education teacher survey, the spring first-grade special education teacher survey will ask the teacher or service provider to provide the following student-level information:

- Whether the child is receiving special education services through an IEP;
- When the child began receiving special education services;
- Teacher's or service provider's review of child's records related to special education services;
- Transition activities from year to year; and
- Child's disabilities.

Child-specific: Services

The spring first-grade special education teacher survey will also ask the teacher or provider to share information about the services students receive, including:

- Type and amount of special education services the child receives;
- Child's classroom placement;
- Teaching methods and materials used with the child, including assistive technologies;

- Communications with other teachers about the child; and
- Communication with the child's parents.

Child-specific: Goals and Achievement

The special education teacher survey also asks the teacher or provider to share information about the child's IEP goals and achievement, including:

- Individual evaluations to develop IEP goals;
- Extent to which the IEP goals have been met;
- Extent to which the child is expected to meet general education goals and participate in grade-level assessments; and
- The child's expected educational attainment.

Child-specific: Teacher- or Service Provider-Child Relationships

As described previously for the spring kindergarten special education teacher survey, the first-grade special education teacher or service provider will answer questions about:

- Level of closeness between child and teacher or service provider; and
- Level of conflict between child and teacher or service provider.

C.5 School Administrator Surveys

The ECLS-K:2024 will collect data in spring kindergarten and spring first grade on school composition, policies, and practices from elementary school principals in schools attended by ECLS-K:2024 sampled children. The child is the central unit of analysis, and school component data will be used to illuminate the school context of the ECLS-K:2024 children and investigate the influence of school and administrator attributes on student outcomes. In the kindergarten year of the study, there will be a nationally representative sample of schools.

C.5.1 Kindergarten and First-Grade School Administrator Survey: Research Questions

SA-RQ1. What steps are schools taking to improve student performance, particularly for the groups of students who are the focus of federal legislation (for example, English language learners and students with disabilities)?

SA-RQ2. What services are being made available to cohort member children related to federal requirements?

SA-RQ3: How do differences in schools' basic demographic, enrollment, resources, polices, and organizational characteristics relate to children's academic and social development in the early elementary school years?

SA-RQ4. What factors are related to students' placement in particular educational programs (e.g., special education or gifted and talented programs)?

SA-RQ5. How does the length of the school year relate to children's progress, especially cognitive gains?

SA-RQ6. How are parents involved in their children's education during the elementary school years and how does this involvement relate to child development over this period?

SA-RQ7. What kinds of services or programs do schools provide to families, children, or community members? How do these relate to children's academic and socioemotional development?

SA-RQ8. How do schools respond to the needs of parents with little or no English proficiency?

SA-RQ9. How do neighborhood or community differences relate to children's cognitive and social development?

SA-RQ10. What challenges associated with student behavior, attendance, teacher mobility, and school safety do schools face, and how do these relate to other school characteristics and children's cognitive and social development?

SA-RQ11. What are the patterns of grade retention for elementary school children?

SA-RQ12. What are the patterns of intervention for elementary school children experiencing difficulties in school?

SA-RQ13. How do differences in principals' background characteristics relate to other school characteristics and practices?

SA-RQ14: How does the use of online and blended learning relate to children's progress, especially in cognitive gains?

C.5.1.1 Spring Kindergarten School Administrator Survey

The instrument is very similar to the administrator surveys for the ECLS-K:2011, with the exception that questions have been added to the "School Characteristics," "School Policies and Practices," and "School Family Community Connections" sections to detect school-level effects of provisions of the 2015 reauthorization of the Elementary and Secondary Education Act, Every Student Succeeds. The items included in the instrument are described in more detail below.

C.5.1.2 Spring Kindergarten School Administrator Survey: Construct Coverage

The ECLS-K:2024 will collect data in spring kindergarten on school characteristics, facilities and resources, community characteristics and school safety issues, school policies and practices, and school programs for special populations, principal characteristics, and staffing and teacher characteristics from elementary school principals in schools attended by the ECLS-K:2024 sampled children. The child is the central unit of analysis, and school component data will be used to illuminate the school context of ECLS-K:2024 children and investigate the influence of school and administrator attributes on student outcomes.

School Characteristics, Facilities, and Resources

Several characteristics of elementary schools influence children's educational experiences and may be related to their learning outcomes. For example, school size, average daily attendance, and the numbers of students enrolling in or leaving the school during the school year may influence the stability in classroom membership experienced by an individual student. The number of days the school is in session sets bounds on the instructional time available to children and thus can influence learning outcomes. Grade span dictates the number of school transitions children must make between levels of schooling and the age range of their school peers. In a study using ECLS-K data, Burkam, Michaels, and Lee (2007) found that kindergarten children in preprimary schools, where kindergarten was the highest grade, started the year with a socioeconomic advantage but learned significantly less in mathematics and reading over the school year than kindergarten children in more traditionally configured elementary schools. The authors postulate potential reasons for these findings including curricular alignment with other grade levels and student opportunities for interaction with older students. Additionally, Combs et al. (2011) found that

students in K-5 schools were found to achieve statistically significantly higher levels of reading and mathematics achievement compared to students who attended separate intermediate schools.

The type of school attended has important implications for student experience and achievement. Most public elementary schools are not selective, enrolling all children within predefined attendance zones. Private schools, by contrast, typically have some kind of admission policy and therefore can be more selective in their enrollment. Of nonpublic schools, parochial schools, especially Catholic schools, have historically received the most research attention (e.g., Bryk, Lee, and Holland 1993). Catholic schools tend to have low absenteeism rates and, for high school students, low dropout rates, and high academic achievement, despite a high level of heterogeneity in the student body. In recent years, the rise of nonreligious charter schools has brought greater variability to the nonpublic school landscape and renewed attention to the potential effects of nonpublic options. For example, Cheng, Hitt, Kisida, and Mills (2017) found that charter schools which include high academic expectations (referred to as No Excuses charters) produce significantly higher math and literacy scores after a single year of attendance. However, in findings from a meta-analysis Betts and Tang (2019) found mixed results for charter school effects on student achievement depending on the grade level (elementary, middle, high) and outcome (reading or math achievement). ECLS-K:2024 data will provide important opportunities to contribute to the literature on effects of school type. Not only will analysts have information about sector, they will also know whether schools include magnet programs, if they are charter schools, and if they are schools of choice.

The composition of the student body has important consequences for the types of programs and services that schools offer. The diversity of student populations with respect to social and economic background, preparation for school, needs for special services, housing and homelessness, migrant family living, and levels of proficiency in English has created a number of challenges for schools. The ECLS-K:2024 will allow analysts to examine how schools have responded to student diversity.

In a study using kindergarten through third-grade data from the ECLS-K to examine family, school, and neighborhood factors and the impact of socioeconomic status (SES) on children's reading abilities, Aikens and Barbarin (2008) found that family characteristics including home literacy and parental involvement in school had the largest impact on reading ability at the beginning of kindergarten. However, school and neighborhood conditions were more strongly related than family characteristics to SES differences in rates of growth in reading over time. The authors state that a school's poverty concentration and number of children with reading deficits in the school are negatively related to individuals' reading outcomes. Rucinski (2019) used kindergarten through third-grade data from the ECLS-K:2011 to examine the extent to which racial/ethnic diversity in children's elementary classrooms impacts their socioemotional, executive function, and academic development. The study found that children's exposure to racial/ethnic diversity in their early elementary classrooms varied greatly and that increased diversity exposure was significantly related to cognitive flexibility. However, Rucinski (2019) also found a negative relationship of classroom diversity to teacher-reported internalizing problem behaviors and negative peer interactions. Like earlier ECLS kindergarten cohort studies, the ECLS-K:2024 will be ideally suited for studies that look at academic growth related to school and classroom characteristics.

The other variables in this set provide the "backdrop" for educational processes occurring within the school. Total enrollment, school capacity, sources of funding, and adequacy of the physical building define both the size of the population to be served and the resources to do so. Overcrowding can be a serious problem, as can inadequate facilities and low levels of funding. Altogether, these variables define important differences between schools.

Elementary schools tend to be smaller, more local, and have larger grade spans than either middle or high schools. The smaller catchment area of elementary schools, combined with the longer grade span, suggests a long-term cumulative influence of the local neighborhood on both children and their schools. School-level characteristics are likely to parallel those for the local neighborhood (demographically, but also, in terms of attitudes, values, and expectations), allowing a long-term, mutual reinforcement less possible in the larger, more diverse middle and high schools.

The community characteristics items in the school survey focus on school and neighborhood safety. Schools in crime-ridden areas may have to prioritize security within and around the school, preventing outdoor play periods or field trips around the neighborhood. The neighborhood questions ask about the neighborhood in which the school is located. The data collected in these surveys can be combined with census data that characterize the neighborhood in other ways (by racial composition, crime, income, employment, etc.). Newly created neighborhood questions about opiate abuse and tensions based on racial, ethnic, or religious differences have been added to the ECLS-K:2024 kindergarten school administrator survey.

This set of items broadly defines the characteristics and basic resources of the school. These factors help describe the student population, the goals and purposes of instruction, time and resource constraints, and opportunities and resources to meet educational objectives.

These data will allow comparisons of schools that vary by these school characteristics:

- School type (public/private; affiliation; grades; magnet; etc.);
- Length of school year;
- Information on school week (days and length of each day);
- School programs including full and half-day kindergarten programming, transitional kindergarten, and pre-first grade;
- Enrollment and attendance;
- Student demographics: race/ethnicity, students from migrant families, those experiencing homelessness, language minority students, catchment area, and students with disabilities;
- School breakfast and lunch programs and the percentage of children eligible for free or reduced-price meals;
- State assessment data (e.g., percent of students proficient and above in reading and math);
- Receipt of Title I and Title III funding;
- Services and programs/ Title I, including services for kindergartners;
- Services and programs/ Title III, including services for kindergartners;
- Adequacy of facilities and resources;
- Availability and use (e.g., instructional, administrative, and student assessment) of electronic devices including desktop computers, laptops, Chromebooks, tablets, or others;
- School status relative to ESSA school performance categories (e.g., unclassified, comprehensive improvement, and targeted support);
- School problems (e.g., bullying, children bringing weapons to school, children bringing drugs to school); and

- Recent changes at the school (e.g., funding levels, enrollment, student mobility, staffing, class size, percent of ELL students, percent of students eligible for free and reduced priced-lunch).

School Policies and Practices

Schools differ in regard to how children are placed into kindergarten programs. Some schools use placement tests to help determine kindergarten "readiness." Many schools and districts have policies regarding age of entry to kindergarten but vary with regards to how flexible those policies are.

There are strong opinions on both sides of the issue of the efficacy of retention as a practice aimed at remediating the academic or social difficulties of young children. Schools and school districts mirror this uncertainty, some favoring the use of retention in certain circumstances, others having a "no retention" policy. Using data from the ECLS-K, Burkam et al. (2007) found that most children who repeated kindergarten did not appear to receive any cognitive benefits. The authors suggest that current retention policies at kindergarten should be reconsidered. Hong and Yu (2007) found that any negative effect of repeating kindergarten faded by the fifth grade. In a longitudinal study, Raffaele Mendez, Kim, Ferron, and Woods (2015) found that compared to children who started kindergarten 1 year delayed, children retained in kindergarten were more likely to be placed in special education throughout elementary grades (1-5) and were also more likely to be rated lower in attention by teachers in both third and fifth grades. The ECLS-K:2024 will collect data on retention policy and remediation and/or support practices at the school level and gather information about the number of children retained in each class from the teachers at each target grade level. These data can be used to address a number of issues about retention: the effects of retention for individual children, the influence of the proportion of the class that has been retained, and school policies regarding retention in kindergarten.

In addition, with the coronavirus pandemic beginning in 2020 and its continued ramifications for schools, the spring kindergarten school administrator survey includes questions on the schools' use of funding from federal aid through the American Rescue Plan.

The policy topics covered in the school administrator survey include:

- Measures taken to ensure school safety;
- Emergency procedure drills (e.g., evacuation, lockdown, shelter in place);
- Disruptions to instruction due to emergencies or implementation of emergency procedures;
- School policy regarding technology use;
- Limits on contributions of school parent teacher organizations;
- Kindergarten readiness/placement testing;
- Entry age for kindergarten;
- Identification of students for gifted and talented program;
- Programs to support positive student behavior (e.g., MTSS, SEL, PBIS);
- Equitable school practices (e.g., suspensions and identification for gifted and talented programs);
- Retention policies and practices; and
- Use of funding from federal aid through the American Rescue Plan related to coronavirus-related issues.

School-Family-Community Connections

Some schools have responded to community needs for daycare and before- and after-school programs by offering these services in the school building. Schools may run these programs themselves or through the Parent Teacher Association or may allow independent providers to operate on site. These services may be essential for children of working parents; on-site programs allow for continuity between the school day and their before- and after-school daycare arrangements.

Parent-school communication may have a number of potential benefits for children's education. Parents as a visible presence in the school can reinforce the notion that education is a valued community goal. Parents can volunteer as classroom or school aides, freeing the teacher's time for instruction. When schools actively promote parent involvement and communication, parents may become more involved and more aware of school and classroom activities and of their own child's instructional program. Parents can then communicate with students about their experiences in school and what they are learning in a more informed manner and can support the child's learning more effectively at home. Strong relationships between schools and parents are associated with positive outcomes for children (Hoover-Dempsey and Sandler 1997; Gonzalez-DeHass, Willems and Holbein 2005).

The ECLS-K:2024 items that collect information on school-family-community connections include:

- Programs or services for children on the school site;
- School-based programs or services for parents and families (e.g., parenting education adult literacy, and family literacy programs for families whose first language is not English);
- Neighborhood problems (racial tensions, gangs, crime, and opioid addiction);
- School-safety measures and drills;
- Disruption of school activities due to school safety threats;
- Communication with parents and families (e.g., modes of communication, reports of student performance, parent-teacher conferences); and
- Parent involvement (e.g., volunteering, attending school events, and PTA).

School Programs for Special Populations

Because the ECLS-K:2024 will provide longitudinal data on a nationally representative sample of children, including children with special educational needs, information is needed on the special programs in which children in the study participate. Because programs serving special populations can vary in content and organization—differences that may, in turn, have consequences for both children's opportunities to learn and their progress in school—basic characteristics of these programs need to be documented. Services to families of children in special programs should also be documented. The use of special staff—e.g., social workers, parent liaisons—home visits, parenting education, and other efforts to involve parents in support of their children's success in school are among the topics included. Survey questions included in the ECLS-K:2024 on these topics will provide data to address issues of how schools can best serve children who receive specialized programs or services.

Data from the ECLS-K were used to examine the association between the school resources for English language learners (ELL) students and their academic growth from kindergarten through fifth grade (Han and Bridglall 2009). The authors found that ELL children narrowed the initial gap in math scores with their English-speaking peers by fifth grade. This was especially true for ELL children in schools with either a high- or low ELL student concentration. In contrast, using data from ECLS-K:2011, a study found neither the adequacy of instructional materials nor student program type to be related to growth in math over the kindergarten year (Wilkinson 2017). The ECLS-K:2024 will provide current data about

schools' efforts to serve the growing population of ELL children in U.S. schools. The ECLS-K:2024 direct assessments are specially designed to directly assess ELL children's early English reading abilities, which was not possible in the ECLS-K but was possible with the ECLS-K:2011 data. This feature will continue to allow for a more thorough understanding of how services for these children relate to their reading growth beginning at kindergarten entry, regardless of their initial English proficiency. Additionally, the study will continue to ask school administrators to report the proportion of ELL children in the school's kindergarten and the total number of ELL children in the school, as well as the number of children receiving bilingual education or ELL/ESL services, and the types of services provided to language minority (LM) families for the ECLS-K:2024 study, as was done in the ECLS-K:2011.

Because baseline data will be collected during the kindergarten year, a point when many children with disabilities have not yet been identified by schools, the ECLS-K:2024 can help to shed light on how children come to be classified as having a particular disability. Information on where children with disabilities are served (i.e., in the classroom— "inclusion"—or in special pull-out classes) is also important information to be gathered in the ECLS-K:2024. Enabling children to function effectively in a regular classroom setting is a goal of many special education programs. Although some children spend all of their time in separate special education classes or schools, many children move in and out of a regular class daily, receiving services in pull-out classes and returning to the classroom for the rest of the day. The ECLS-K:2024 data on special education placement and practices will provide critical information about the range and effectiveness of options for special education delivery.

The ECLS-K:2024 data on special populations include:

- Delivery of instruction to English language learners (ELL) (ESL, bilingual, and dual language) and services for language minority (LM) families (translators made available during meetings, written materials translated into native language);
- Delivery of special education and related services to children with disabilities;
- Programs for gifted and talented children; and
- Services provided to students experiencing homelessness or housing insecurity.

Staffing and Teacher Characteristics

The ECLS-K:2024 school-level data on teacher characteristics will allow researchers to evaluate the importance of the following elements of the teaching staff for children, aside from the characteristics of their own teacher (which will be addressed on the teacher survey):

- Total number of full- and part-time teachers, specialists, nurses, and paraprofessionals;
- Teacher mobility;
- The racial and ethnic composition of teaching staff;
- Teacher compensation (base salary range, average starting salary, and monetary incentives); and
- School climate.

Principal Characteristics

School principals have many roles and responsibilities: conveying and implementing state and district requirements and initiatives, assuming the role of inspirational leader for the staff, coordinating reform efforts, and managing the day-to-day operations of the school. Many principals also have additional teaching or administrative duties. How principals exercise these duties may influence teachers' motivation, enthusiasm, and commitment to education.

Although literature exists on how leadership skills create conditions conducive to effective schools, few studies address the influence of variations in principals' characteristics, qualifications, and time use on student outcomes. The following ECLS-K:2024 variables might help explain why certain principals are especially successful:

- Principal's gender, age, and race/ethnicity;
- Principal's years at the study school;
- Principal's years in the role of principal;
- Principal's formal education;
- Principal's time allocation; and
- Principal's familiarity with students.

C.5.2 Spring First-Grade School Administrator Survey

The spring first-grade school administrator instrument is very similar to the administrator survey for the ECLS-K:2024 kindergarten data collection round, with the exception that questions from latter rounds of the ECLS-K:2011 have been added to the Staffing and Teacher Characteristics and Principal Characteristics sections, including questions about salary ranges for teachers, teacher incentives for improving student performance, and languages other than English spoken by the school administrator to communicate with students, families, and caregivers. Similar to the ECLS-K:2011, there are several constructs that are introduced in the first-grade school administrator surveys, including the number of students newly evaluated for IEPs, and methods used to evaluate students for IEPs. The ECLS-K:2024 first-grade administrator paper survey will have two versions: one for schools without a completed administrator survey in the kindergarten round and a more streamlined version for schools with a completed kindergarten instrument. These items are combined in the web survey. The items included in the instrument are described in more detail below.

C.5.2.1 Spring First-Grade School Administrator Survey: Construct Coverage

Literature review for constructs that are the same as those in kindergarten are not duplicated in this section.

School Characteristics, Facilities, and Resources

These data will allow comparisons of schools that vary by these school characteristics:

- School type (public/private, affiliation, grades, magnet, etc.);
- Length of school year;
- Information on school week (days and length of each day);
- School programs including full and half-day kindergarten programming, transitional kindergarten, and pre-first grade;
- Enrollment and attendance;
- Student demographics: race/ethnicity, students from migrant families, those experiencing homelessness, language minority students, catchment area, and students with disabilities;
- School breakfast and lunch programs and the percentage of children eligible for free or reduced-price meals;
- State assessment data (e.g., percent of students proficient and above in reading and math);

- Receipt of Title I and Title III funding;
- Services and programs/ Title I;
- Services and programs/ Title III;
- Adequacy of facilities and resources;
- Availability and use (e.g., instructional, administrative, and student assessment) of electronic devices including desktop computers, laptops, Chromebooks, tablets or other;
- School status relative to ESSA school performance categories (e.g., unclassified, comprehensive improvement, and targeted support);
- School problems (e.g., bullying, children bringing weapons to school, children brining drugs to school); and
- Recent changes at the school (e.g., funding levels, enrollment, student mobility, staffing, class size, percent of ELL students, percent of students eligible for free and reduced priced lunch).

School Policies and Practices

The policy topics covered in the school administrator questionnaire include:

- Measures taken to ensure school safety;
- Emergency procedure drills (e.g., evacuation, lockdown, shelter in place);
- School policy regarding technology use;
- Limits on contributions of school parent teacher organizations;
- Identification of students for gifted and talented program;
- Identification of students for special education services;
- Programs to support positive student behavior (e.g., MTSS, SEL, PBIS);
- Equitable school practices (e.g., suspensions and identification for gifted and talented programs); and
- Retention policies and practices.

School-Family-Community Connections

The ECLS-K:2024 items that collect information on school-family-community connections include:

- Programs or services for children on the school site;
- School-based programs or services for parents and families (e.g., parenting education adult literacy, and family literacy programs for families whose first language is not English);
- Neighborhood problems (racial tensions, gangs, crime, and opioid addiction);
- School-safety measures and drills;
- Disruption of school activities due to school safety threats;
- Communication with parents and families (e.g., modes of communication, reports of student performance, parent-teacher conferences); and
- Parent involvement (e.g., volunteering, attending school events, and PTA).

School Programs for Particular Populations

The ECLS-K:2024 data on particular populations include:

- Delivery of instruction to English language learners (ELL) (ESL, bilingual, and dual language) and services for language minority (LM) families (translators made available during meetings, written materials translated into native language);
- Delivery of special education and related services to children with disabilities;
- Programs for gifted and talented children; and
- Services provided to students experiencing homelessness or housing insecurity.

Staffing and Teacher Characteristics

The ECLS-K:2024 school-level data on teacher characteristics will allow researchers to evaluate the importance of the following elements of the teaching staff for children, aside from the characteristics of their own teacher (which will be addressed on the teacher questionnaire):

- Total number of full- and part-time teachers, specialists, nurses, and paraprofessionals;
- Teacher mobility;
- The racial and ethnic composition of teaching staff;
- Teacher compensation (base salary range, average starting salary, and monetary incentives); and
- School climate.

Principal Characteristics

Data on the following principal characteristics will be collected in the ECLS-K:2024:

- Principal's gender, age, and race/ethnicity;
- Principal's years at the study school;
- Principal's years as teacher before becoming administrator;
- Principal's years in the role of principal;
- Principal's formal education;
- Principal's time allocation; and
- Principal's familiarity with students.

References

Ackerman, B., Brown, E., and Izard, C. (2003). Continuity and Change in Levels of Externalizing Behavior in School of Children From Economically Disadvantaged Families. *Child Development*, *74*(3): 694-709.

Afterschool Alliance (2020). *Demand grows, opportunity shrinks*. Retrieved September 12, 2022, from https://afterschoolalliance.org/documents/AA3PM-2020/AA3PM-National-Report.pdf.

Adams, G. and Todd, M. (2020). Meeting the school-age child care needs of working parents facing COVID-19 distance learning. Retrieved September 12, 2022, from https://files.eric.ed.gov/fulltext/ED610005.pdf.

Aikens, N., and Barbarin, O. (2008). Socioeconomic Differences in Reading Trajectories: The Contribution of Family, Neighborhood, and School Contexts. *Journal of Educational Psychology*, *100*(2): 235-251.

Alexander, K., Entwisle, D.R., and Dauber, S.L. (1993). First Grade Classroom Behavior: Its Short- and Long-Term Consequences for School Performance. *Child Development, 64*: 801-814.

Alexander, K.L., and Entwisle, D.R. (1988). Achievement in the First Two Years of School: Patterns and Processes. *Monographs of the Society for Research in Child Development, 53*(2): 1-140.

Allegretto, S.A., and Mishel, L. (2016). *The Teacher Pay Gap Is Wider Than Ever*. Washington, DC: Economic Policy Institute. Retrieved July 17, 2020, from https://www.epi.org/publication/the-teacher-pay-gap-is-wider-than-ever-teachers-pay-continues-to-fall-further-behind-pay-of-comparable-workers/.

Almond, T., and Holt, J. (2005). *What Parents Do in the Home and Community That Influences Their Child's Reading.* Paper presented at the annual meeting of the Mid-Western Educational Research Association, Columbus, Ohio.

Amato, P.R., and Gilbreth, J.G. (1998). *Nonresident Fathers and Children's Well-Being.* Unpublished manuscript. Lincoln, NE: Department of Sociology, University of Nebraska-Lincoln.

American Academy of Audiology. (2011). *American Academy of Audiology Childhood Hearing Screening Guidelines.* Retrieved July 17, 2020, from: https://www.cdc.gov/ncbddd/hearingloss/documents/AAA_Childhood%20Hearing%20Guidelines_2011.pdf.

American Psychological Association. (2010). *Stress in America*. Washington, DC: Author. Retrieved July 8, 2019, from https://www.apa.org/news/press/releases/stress/2010/national-report.pdf.

American Psychological Association. (2010). *Stress in America*. Washington, DC: Author. Retrieved July 8, 2019, from https://www.apa.org/news/press/releases/stress/2010/national-report.pdf.

American Psychological Association. (2017). *Stress in America: The State of Our Nation. Stress in America TM Survey.* Washington, DC: Author. Retrieved July 8, 2019, from https://www.apa.org/news/press/releases/stress/2017/state-nation.pdf.

Anders, Y., Rossbach, H.G., Weinert, S., Ebert, S., Kuger, S., Lehrl, S., and von Maurice, J. (2012). Home and Preschool Learning Environments and Their Relations to the Development of Early Numeracy Skills. *Early Childhood Research Quarterly*, *27*(2): 231-244.

Annie E. Casey Foundation. (2017). *Kids Count Data Book: State Trends in Child Well-Being*. Baltimore: Author. Retrieved May 17, 2019, from https://www.aecf.org/resources/2017-kids-count-data-book.

Annie E. Casey Foundation. (2018). *Kids Count Data Book: State Trends in Child Well-Being*. Baltimore: Author. Retrieved May 17, 2019, from https://www.aecf.org/resources/2018-kids-count-data-book.

Annie E. Casey Foundation. (2019). *2019 Kids Count Databook: State Trends in Child Well-Being*. Baltimore: Author. Retrieved June 14, 2020, from https://www.aecf.org/m/resourcedoc/aecf-2019kidscountdatabook-2019.pdf

Ansari, A., and Crosnoe, R. (2018). The Transition Into Kindergarten for English Language Learners. In A. Mashburn, J. LoCasale-Crouch and K. Pears (Eds.), *Kindergarten Transition and Readiness: Promoting Cognitive, Social-Emotional, and Self-Regulatory Development* (pp.185-204). Cham, Switzerland: Springer International Publishing AG.

Arteaga, I., Heflin, C., and Parsons, S. (2019). Design Flaws: Consequences of the Coverage Gap in Food Programs for Children at Kindergarten Entry. *Applied Economic Perspectives and Policy, 41(*2): 265-283.

Bachman, H., Elliott, L., Scott, P., and Navarro, M. (2018). Latino Children's Academic and Behavioral Trajectories in Early Elementary School: Examining Home Language Differences Within Preschool Types. *Early Childhood Research Quarterly, 52*: 138-153.

Bane, M.J., and Ellwood, D. (1983). *The Dynamics of Dependence: The Routes to Self-Sufficiency*. Report prepared for Assistant Secretary of Planning and Evaluation, Department of Health and Human Services. Cambridge, MA: Harvard University, Kennedy School of Government.

Baroody, A.J. (2003). The Development of Adaptive Expertise and Flexibility: The Integration of Conceptual and Procedural Knowledge. In A.J. Baroody and A. Dowker (Eds.), *The Development of Arithmetic Concepts and Skills: Constructing Adaptive Expertise Studies*. Mahwah, N.J.: Lawrence Erlbaum Associates, Inc.

Bassok, D., Finch, J., Lee, R., Reardon, S., and Waldfogel, J. (2016). Socioeconomic Gaps in Early Childhood Experiences: 1998 to 2010. *AERA Open*, *2*(3): 1-22. Retrieved on June 15, 2020, from https://journals.sagepub.com/doi/full/10.1177/2332858416653924.

Bassok, D., and Latham, S. (2017). Kids Today: The Rise in Children's Academic Skills at Kindergarten Entry. *Educational Researcher*, *46*(1): 7-20.

Bassok, D., Latham, S., and Rorem, A. (2016). Is kindergarten the new first grade?. *AERA Open, 1*(4), 1-31. DOI: 10.1177/2332858415616358.

Bassok, D., and Shapiro, A. (2021). *Understanding COVID-19-era enrollment drops among early grade public school students.* Retrieved June 18, 2021, from

https://www.brookings.edu/blog/brown-center-chalkboard/2021/02/22/understanding-covid-19-era-enrollment-drops-among-early-grade-public-school-students.

Berger, R.H., Diaz, A., Valiente, C., Eisenberg, N., Spinrad, T.L., Doane, L.D., Thompson, M.S., Hernandez, M.M., Johns, S.K., and Southworth, J. (2019). The Association Between Home Chaos and Academic Achievement: The Moderating Role of Sleep. *Journal of Family Psychology, 33*(8): 975-981.

Bergen, D., and Fromberg, D. (2009). Play and social interaction in middle childhood. *Phi Delta Kappan*, *90*(6): 426-430.

Berry, D., Blair, C., Willoughby, M., Garrett-Peters, P., Vernon-Feagans, L., and Mills-Koonce, W.R. (2016). Household Chaos and Children's Cognitive and Socio-Emotional Development in Early Childhood: Does Childcare Play a Buffering Role? *Early Childhood Research Quarterly, 34:* 115-127. Retrieved on July 17, 2020, from http://dx.doi.org/10.1016/j.ecresq.2015.09.003.

Betts, J. R., & Tang, Y. E. (2019). The effect of charter schools on student achievement. In M. Berends, R. J. Waddington, & J. Schoenig (Eds.) *School choice at the crossroads: Research perspectives*, (67-89). Taylor & Francis.

Bidwell, C.E., and Bryk, A.S. (1994). *How teachers' work is organized: The content and consequences of the structure of the high school workplace.* Chicago, IL: The National Opinion Research Center at the University of Chicago.

Blair, C., and Raver, C.C. (2015). School Readiness and Self-Regulation: A Developmental Psychobiological Approach. *Annual Review of Psychology, 66:* 711-731.

Blair, C., and Razza, R. (2007). Relating Effortful Control, Executive Function, and False Belief Understanding to Emerging Math and Literacy Ability in Kindergarten. *Child Development, 78*(2): 647-663.

Blevins-Knabe, B., and Musun-Miller, L. (1996). Number Use at Home by Children and Their Parents and Its Relationship to Early Mathematical Performance. *Early Development and Parenting, 5*(1)*:* 35-45.

Blevins-Knabe, B., Whiteside-Mansell, L., and Selig, J. (2007). Parenting and Mathematical Development. *Academic Exchange Quarterly*, *11*(2)*:* 76-80.

Bodovski, K., and Youn, M. (2011). The Long-Term Effects of Early Acquired Skills and Behaviors on Young Children's Achievement in Literacy and Mathematics. *Journal of Early Childhood Research*, *9*(1): 4-19.

Bowden, M., Bartkowski, J., Xu, X., and Lewis, R. (2018). Parental Occupation and the Gender Math Gap: Examining the Social Reproduction of Academic Advantage Among Elementary and Middle School Students. *Social Science*, *7*(6): 1-17.Brooks-Gunn, J., Duncan, G.J., Klebanov, P.K., and Sealand, N. (1993). Do Neighborhoods Influence Child and Adolescent Development? *American Journal of Sociology, 99*(2): 353-395.

Bryk, A., Lee, V., and Holland, P. (1993). *Catholic schools and the common good*. Cambridge, MA US: Harvard University Press.

Buhs, E.S., Ladd, G.W., and Herald, S.L. (2006). Peer Exclusion and Victimization: Processes That Mediate the Relation Between Peer Group Rejections and Children's Classroom Engagement and Achievement? *Journal of Educational Psychology*, *98*(1): 1-13.

Burkam, D., Michaels, D., and Lee, V. (2007). School grade span and kindergarten learning. *The Elementary School Journal*, *107*(3): 287-303.

Burkam, D., LoGerfo, L., Ready, D., and Lee, V. (2007). The differential effects of repeating kindergarten. *Journal of Education for Students Placed at Risk*, *12*(2): 103-136.

Callen, J. (2020). *New Household Pulse Survey Shows Concern Over Food Security, Loss of Income.* Washington, DC: U.S. Census Bureau. Retrieved on June 12, 2020, from https://www.census.gov/library/stories/2020/05/new-household-pulse-survey-shows-concern-over-food-security-loss-of-income.html.

Campbell, F.A., Pungello, E.P., Kainz, K., Burchinal, M., Pan, Y., Wasik, B.H., Barbarin, O., Sparling, J.J., and Ramey, C.T. (2012). Adult Outcomes as a Function of an Early Childhood Educational Program: An Abecedarian Project Follow-Up. *Developmental Psychology, 48*(4): 1033.

Casey, B.J., Giedd, J.N., and Thomas, K.M. (2000). Structural and Functional Brain Development and Its Relation to Cognitive Development. *Biological Psychiatry, 54*(1-3): 241-257.

Castillo, A., Khislavsky, A., Altman, M., and Gilger, J. W. (2020). Executive function developmental trajectories kindergarten to first grade: monolingual, bilingual and English language learners. International Journal of Bilingual Education and Bilingualism, 1-19.

Catsambis, S., and Buttaro, A. (2012). Revisiting "Kindergarten as Boot Camp": A Nationwide Study of Ability Grouping and Psycho-Social Development. *Social Psychology of Education: An International Journal*, *15*(4): 483-515.

Cavanagh. S., and Fomby, P. (2019). Family Instability in the Lives of American Children. *Annual Review of Sociology, 45*:493-513.

Centers for Disease Control and Prevention. (2020). *Preventing Adverse Childhood Experiences: What Are Adverse Childhood Experiences?* Retrieved April 24, 2020, from https://www.cdc.gov/violenceprevention/childabuseandneglect/aces/fastfact.html.

Chandra, A., Martinez, G.M., Mosher, W.D., Abma, J.C., and Jones, J. (2005). Fertility, Family Planning and Reproductive Health of U.S. Women: Data From the 2002 National Survey of Family Growth. *Vital Health Statistics, 23*(25).

Cheng, A., Hitt, C., Kisida, B., and Mills, J. N. (2017). "No excuses" charter schools: A meta-analysis of the experimental evidence on student achievement. *Journal of School Choice, 11*(2), 209-238.

Child Trends. (2015). *Births to Unmarried Women.* Bethesda, MD: Child Trends. Retrieved June 11, 2020, from https://www.childtrends.org/indicators/births-to-unmarried-women/.

Child Trends. (2016). *Racial and Ethnic Composition of the Child Population: Indicators of Child and Youth Well-Being*. Bethesda, MD: Child Trends. Retrieved July 17, 2020, from https://www.childtrends.org/indicators/racial-and-ethnic-composition-of-the-child-population.

Child Trends Databank. (2019). *Children in Poverty*. Bethesda, MD: Author. Retrieved from https://www.childtrends.org/?indicators=children-in-poverty.

Clark, L., Gresham, F., and Elliott, S. (1985). Development and Validation of a Social Skills Assessment Measure: The Tross-C. *Journal of Psychoeducational Assessment*, *3*(4): 347-356.

Coie, J.D., and Kupersmidt, J.B. (1983). A Behavioral Analysis of Emerging Social Status in Boys' Groups. *Child Development*, *54*(6): 1400-1416.

Colby, S.L., and Ortman, J.M. (2015). Projections of the Size and Composition of the U.S. Population: 2014 to 2060, Population Estimates and Projections. *Current Population Reports*. Washington, DC: U.S. Census Bureau.

Coldwell J., Pike A., and Dunn J. (2006). Household Chaos–Links with Parenting and Child Behaviour. *Journal of Child Psychology and Psychiatry, 47*(11): 1116-1122.

Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., and Singh, A. (2019). *Household Food Security in the United States in 2018* (ERR-270). Washington, DC: U.S. Department of Agriculture, Economic Research Service.

Collaborative Longitudinal Evaluation of Ethnicity and Refractive Error Study Group. (2003). Refractive Error and Ethnicity in Children. *Archives of Opthamology, 121*(8): 1141-1147.

Combs, J. P., Clark, D., Moore, G. W., Onwuegbuzie, A. J., Edmonson, S. L., and Slate, J. R. (2011). Academic achievement for fifth-grade students in elementary and intermediate school settings: Grade span configurations. *Current Issues in Education, 14*(1), 1-46.

Connell, J.P., Spencer M.B., and Aber, J.L. (1994). Educational Risk and Resilience in African-American Youth: Context, Self, Action, and Outcomes in School. *Child Development, 65*(2): 493-506.

Cooper, H., Batts Allen, A., Pattall, E. A., and Dent, A. L. (2010). Effects of full-day kindergarten on academic achievement and social development. *Review of Educational Research, 80*(1), 34–70.

Council of Chief State School Officers. (2021). *Restart and Recovery: Declining Kindergarten Enrollment in 2020-21: Recommendations for State Education Agencies*. Retrieved June 18, 2021, from CCSSO_RR_Declining_Kindergarten_Enrollment-v3 POSTED.pdf.

Crocker, R., and Brooker, G. (1986). Classroom control and student outcomes in grades 2 and 5. *American Educational Research Journal, 23*(1): 1-11.

Cruz, R.A., and Rodl, J.E. (2018). An Integrative Synthesis of Literature on Disproportionality in Special Education. *The Journal of Special Education*, *52*(1): 50-63.

Cunningham, M., Cox, E.O., and the Committee on Practice and Ambulatory Medicine, and the Section on Otolaryngology and Bronchoesophagology. (2003). Hearing assessment in infants and children: Recommendations beyond neonatal screening. *Pediatrics, 111*(2): 436-440.

Cunningham, S., Hardy, S., Jones, R., Ng, C., and Kramer, M. (2022). Changes in the incidence of childhood obesity. Pediatrics, 150: 1-10.

Da Cruz, A.D., Silvério, K.C.A., Da Costa, A.R.A., Moret, A.L.M., Lauris, J.R.P., and De Souza Jacob, R.T. (2016). Evaluating Effectiveness of Dynamic Soundfield System in the Classroom. Noise & Health, 18(80): 42.

Datar A., and Sturm R. (2004). Physical education in elementary school and body mass index: evidence from the early childhood longitudinal study. American Journal of Public Health, 94: 1501–1506.

Datar, A., and Sturm, R. (2006). Childhood Overweight and Elementary School Outcomes. International Journal of Obesity, 30(9): 1449-1460.

Deater-Deckard, K, Li, M., and Bell, M. (2016). Multi-Faceted Emotion Regulation, Stress, and Affect in Mothers of Young Children. *Cognition and Emotion, 30*(3): 444-457.

Deming, D. (2009). Early Childhood Intervention and Life-Cycle Skill Development: Evidence from Head Start. *American Economic Journal: Applied Economics, 1*(3): 111-134.

Diamond, A., Barnett, S., Thomas, J., and Munro, S. (2007). Preschool Program Improves Cognitive Control. *Science, 318*(5855): 1387-1388.

Dotterer, A., McHale, S., and Crouter, A. (2009). The Development and Correlates of Academic Interests From Childhood Through Adolescence. *Journal of Educational Psychology*, *101*(2): 509-519.

Duncan, G.J. (1991). The Economic Environment of Childhood. In A.C. Huston (Ed.), *Children in Poverty* (pp. 23-50). New York: Cambridge University Press.

Duncan, G.J., Dowsett, C., Claessens, A., Magnuson, K., Huston, A.C., Klebanov, P., Pagani, L., Feinstein, L., Engel, M., Brooks-Gunn, J., Sexton, H., Duckworth, K., and Japel, C. (2007). School Readiness and Later Achievement. *Developmental Psychology*, *43*(6): 1428.

Dunifon, R., and Kowaleski-Jones, L. (2003). The Influences of Participation in the National School Lunch Program and Food Insecurity on Child Well-Being. *Social Service Review, 77*(1): 72-93.

Dunifon, R., and Kowaleski-Jones, L. (2007). The Influence of Grandparents in Single-Mother Families. *Journal of Marriage and Family*, *69*(2): 465-481.

Durlak, J. A., Mahoney, J.L., Bohnert, A. M., and Parente, A. M. (2010). Developing and Improving After-School Programs to Enhance Youth's Personal Growth and Adjustment: A Special Issue of AJCP. *American Journal of Community Psychology, 45*(3-4): 285-293.

Edmonds, R.R. (1979). *A discussion of the literature and the issues related to effective schooling.* Cambridge, MA: Center for Urban Studies, Harvard Graduate School of Education.

Education Trust (2020). Parents overwhelmingly concerned their children are falling behind during school closures. Retrieved September 12, 2022, from https://edtrust.org/parents-overwhelmingly-concerned-their-children-are-falling-behind-during-school-closures.

Eide, E., and Showalter, M. (2012). Sleep and Student Achievement. *Eastern Economic Journal, 38*(4): 512-524.

Eisenberg, N., Fabes, R.A., and Spinrad, T.L. (2006). Prosocial Development. In W. Damon (Series Ed.) and N. Eisenberg (Vol. Ed.), *Handbook of Child Psychology* (Vol. 3, pp. 646-718). New York: Wiley.

Engel, M., Claessens, A., Watts, T., and Stone, S. (2016). Socioeconomic Inequality at School Entry: A Cross-Cohort Comparison of Families and Schools. *Children and Youth Services Review, 71*: 227-232. Retrieved on June 14, 2020, from https://inid.gse.uci.edu/files/2011/03/Engel-et-al.-2016-rising-inequality.pdf.

Entwisle, D.R. (1995). The role of schools in sustaining early childhood program benefits. *The Future of Children, 5*(3): 133-144.

Fattore, T., and Mason, J. (2018). Constructing Indicators of Child Well-Being From a Child Standpoint. *Developing Practice: The Child, Youth and Family Work Journal*, *50*: 34-49.

Federal Interagency Forum on Child and Family Statistics. (2007). *America's Children: Key National Indicators of Well-Being, 2007*. Washington, DC: U.S. Government Printing Office.

Federal Interagency Forum on Child and Family Studies. (2017). *America's Children: Key National Indicators of Well-Being, 2017*. Washington, DC: Government Printing Office.

Federal Interagency Forum on Child and Family Statistics. (2019). *America's Children: Key National Indicators of Well-Being, 2019*. Washington, DC: U.S. Government Printing Office. Retrieved on June 11, 2020, from https://www.childstats.gov/pdf/ac2019/ac_19.pdf.

First Five Years Fund. (2016). *Every Student Succeeds Act (ESSA)*. Washington, DC: Author. Retrieved July 17, 2020, from https://www.ffyf.org/issues/essa/.

Foster, T.D., Froyen, L.C., Skibbe, L.E., Bowles, R.P., and Decker, K.B. (2016). Fathers' and Mothers' Home Learning Environments and Children's Early Academic Outcomes. *Reading and Writing, 29*(9): 1845-1863.

Frey, W.H. (2011). *America's Diverse Future: Initial Glimpses at the U.S. Child Populations from the 2010 Census*. Washington, D.C.: The Metropolitan Policy Program at Brookings.

Friedman, S.L., and Scholnick, E.K. (1997). An Evolving "Blueprint" for Planning: Psychological Requirements, Task Characteristics, and Social-Cultural Influences. In E.K. Scholnick and S.L. Friedman (Eds.), *The Developmental Psychology of Planning: Why, How, and When Do We Plan?* (pp. 3-22). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Fusaro, J. (1997). The effect of full-day kindergarten on student achievement: A meta-analysis. *Child Study Journal, 27*(4), 269-277.

Gable, S., Chang, Y., and Krull, J.L. (2007). Television Watching and Frequency of Family Meals Are Predictive of Overweight Onset and Persistence in a National Sample of School-Age Children. *Journal of the American Dietetic Association, 107*(1): 53-61.

Gabarino, J., and Kosteiny, K. (1993). Neighborhood and Community Influences on Parenting. In T. Luster and L. Okagaki (Eds.), *Parenting: An Ecological Perspective* (pp. 203-227). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Galaviz, K.I., Zytnick, D., Kegler, M.C., and Cunningham, S.A. (2016). Parental Perception of Neighborhood Safety and Children's Physical Activity. *Journal of Physical Activity and Health*, *13*(10): 1110-1116.

Garrett-Peters, P.T., Mokrova, I., Vernon-Feagans, L., Willoughby, M., Pan, Y., and Family Life Project Key Investigators. (2016). The Role of Household Chaos in Understanding Relations Between Early Poverty and Children's Academic Achievement. *Early Childhood Research Quarterly*, *37:* 16-25.

Gershenson, S., Holt, S. B., and Papageorge, N. W. (2016). Who believes in me? The effect of student–teacher demographic match on teacher expectations. Economics of education review, 52, 209-224.

Glew, G.M., Fan, M.Y., Katon, W., Rivara, F.P., and Kernic, M.A. (2005). Bullying, Psychosocial Adjustment, and Academic Performance in Elementary School. *Archives Pediatric Adolescent Medicine, 159*(11): 1026-1031.

Goddard, Y. L., Goddard, R. D., and Tschannen-Moran, M. (2007). A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers College Record, 109*(4), 877-896.

Gonzalez-DeHass, A., Willems, P., and Holbein, M. (2005). Examining the Relationship Between Parental Involvement and Student Motivation. *Educational Psychology Review*, *17*(2): 99-123.

Gottfried, A.W. (1984). Home Environment and Early Cognitive Development: Integration, Meta-Analyses, and Conclusions. In A.W. Gottfried (Ed.), *Home Environment and Early Cognitive Development* (pp. 329-342). Orlando, FL: Academic Press.

Greenwood, C.R. (1991). A Longitudinal Analysis of Time, Engagement, and Achievement in At-Risk Versus Non-Risk Students. *Exceptional Children, 57*(6): 521-535.

Greenwood, C.R., Arreaga-Mayer, C., and Carta, J. (1994). Identification and Translation of Effective Teacher-Developed Instructional Procedures for General Practice. *Remedial and Special Education, 15*(3): 140-151.

Gregory, A., and Rimm-Kaufman, S. (2008). Positive Mother-Child Interactions in Kindergarten: Predictors of School Success in High School. *School Psychology Review*, *37*(4): 499-515.

Gresham, F., and Elliott, S.N. (2008). *Social Skills Improvement System Rating Scales*. Minneapolis, MN: Pearson Assessments.

Gresham, F.M., and Elliott, S.N. (1990). *Social Skills Rating System Manual.* Circle Pines, MN: American Guidance Service.

Grieco, E., Acosta, Y., de la Cruz, G., Gambino, C., Gryn, T., Larsen, L., Trevelyan, E., and Walters, N. (2012). *The Foreign Born Population of the United States*. Washington, D.C: U.S. Bureau of the Census.

Grych, J.H., and Fincham, F.D. (1990). Marital Conflict and Children's Adjustment: A Cognitive-Contextual Framework. *Psychological Bulletin, 108*(2): 267-290.

Guarino, C.M., Hamilton, L.S., Lockwood, J.R., and Rathbun, A.H. (2006). *Teacher Qualifications, Instructional Practices, and Reading and Mathematics Gains of Kindergartners* (NCES 2006-031). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Han, W. (2010). Bilingualism and Socioemotional Well-Being. *Children and Youth Services Review*, *32*(5): 720-731.

Han, W., and Bridglall, B. (2009). Assessing School Supports for ELL Students Using the ECLS-K. *Early Childhood Research Quarterly*, *24*(4): 445-462.

Hanushek, E.A. (2002). Evidence, Politics, and the Class Size Debate. In L. Mishel and R. Rothstein (Eds.), *The Class Size Debate*. Washington, DC: Economic Policy Institute.

Hart, C.M., and Figlio, D.N. (2015). School Accountability and School Choice: Effects on Student Selection Across Schools. *National Tax Journal*, *68*(3S): 875-900.

Hart, S., Petrill, S., Deckard, K., and Thompson, L. (2007). SES and CHAOS as Environmental Mediators of Cognitive Ability: A Longitudinal Genetic Analysis. *Intelligence, 35*(3): 233-242.

Harter, S. (1999). *The Construction of the Self: A Developmental Perspective*. New York: Guildford.

Hayes, C., Palmer, J., and Zaslow, M. (Eds.). (1990). *Who Cares for America's Children?* Washington, DC: National Academy Press.

Hearing Loss Association of America. (2018). Hearing Loss Facts and Statistics. *Infographic*. Retrieved June 15, 2020, from https://www.hearingloss.org/wp-content/uploads/HLAA_HearingLoss_Facts_Statistics.pdf?pdf=FactStats.

Hedges, L.V., Laine, R.D., and Greenwald, R. (1994). Does Money Matter? A Meta-Analysis of Studies of the Effects of Differential School Inputs on Student Outcomes. *Educational Researcher, 23*(3): 5-14.

Hernandez, M., Valiente, C., Eisenberg, N. Berger, R., Spinrad, T., VanSchyndel, S., Silva, K., Southworth, J., and Thompson, M. (2017). Elementary students' effortful control and academic achievement: The mediating role of teacher-student relationship quality. *Early Childhood Research Quarterly, 50:* 98-109.

Hill, C., and Stafford, F. (1980). Parental Care of Children: Time Diary Estimates of Quantity, Predictability, and Variety. *Journal of Human Resources*, *15*(2): 219-239.

Hollingsworth, H., and Attansio, C. (2021). *School across US brace for surge of kindergartners in fall*. Retrieved June 18, 2021, from https://apnews.com/article/coronavirus-pandemic-kindergarten-preschool-surge-enrollment-95d6ce871622f527f16588c68dff3371?te=1&nl=coronavirus-briefing&emc=edit_cb_20210614.

Horowitz, J. (2020). Lower-income parents most concerned about their children falling behind amid COVID-19 school closures. Lower-income parents worry kids are falling behind amid school closures for COVID-19. Retrieved September 12, 2022, from https://www.pewresearch.org/fact-tank/2020/04/15/lower-income-parents-most-concerned-about-their-children-falling-behind-amid-covid-19-school-closures.

Hong, G., and Yu, B. (2007). Early-Grade Retention and Children's Reading and Math Learning in Elementary Years. *Educational Evaluation and Policy Analysis*, *29*(4): 239-261.

Hoover-Dempsey, K., and Sandler, H. (1997). Why Do Parents Become Involved in Their Children's Education? *Review of Educational Research*, *67*(1): 3.

Hussar, B., Zhang, J., Hein, S., Wang, K., Roberts, A., Cui, J., Smith, M., Bullock Mann, F., Barmer, A., and Dilig, R. (2020). The Condition of Education 2020 (NCES 2020-144). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved July 20, 2020 from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2020144.

Internal Revenue Service. (2018). *Tax Reform Basics for Individuals and Families* (5307). U.S. Department of the Treasury. Washington, DC: Author.

Iruka, I., Gardner-Neblett, N., Telfer, N., Ibekwe-Okafor, N., Currenton, S., Sims, J., Sansbury, A., and Neblett, E., (2022). Effects of racism on child development: Advancing antiracist developmental science. *Annual Review of Developmental Psychology, 4*:1.

Jackson, A., Jeong-Kyun, C., and Franke, T. (2009). Poor Single Mothers With Young Children: Mastery, Relations With Nonresident Fathers, and Child Outcomes. *Social Work Research*, *33*(2): 95-106.

Jackson, A.P., Bentler, P.M., and Franke, T.M. (2006). Employment and Parenting Among Current and Former Welfare Recipients. *Journal of Social Service Research, 33*(2): 13-25.

Jackson, M.T., Mcphee, C.B., and Lavrakas, P.J. (2020). Using Response Propensity Modeling to Allocate Noncontingent Incentives in an Address-Based Sample: Evidence from a National Experiment. *Journal of Survey Statistics and Methodology*, *8*(2): 385-411.

Jacobs, J.E., Davis-Kean, P., Bleeker, M., Eccles, J.S., and Malanchuk, O. (2005). I Can, But I Don't Want To: The Impact of Parents, Interests and Activities on Gender Differences in Math. In A. Gallagher and J. Kaufman (Eds.), *Gender Differences in Mathematics* (pp. 246-263). New York: Cambridge University Press.

Jeynes, W. H. (2017). A meta-analysis: The relationship between parental involvement and Latino student outcomes. *Education and Urban Society, 49*(1), 4-28.

Johnson, A., Martin, A, Brooks-Gunn, J., and Petrill, S. (2008). Order in the House! Associations Among Household Chaos, the Home Literacy Environment, Maternal Reading Ability and Children's Early Reading. *Merrill-Palmer Quarterly, 54*(4): 445-472.

Judge, S., and Jahns, L. (2007). Association of Overweight With Academic Performance and Social and Behavioral Problems: An Update From the Early Childhood Longitudinal Study. *Journal of School Health*, *77*(10): 672-678.

Kadry, D., Ali, S., and Sorour, A. S. (2017). The Role of Parenting Styles in Aggressive Behavior Among Preschoolers Children at Zagazig City. *Zagazig Nursing Journal*, *13*(2), 86-100.

Kanaya, T., Wai, J., and Miranda, B. (2019). Exploring the links between receiving special education services and adulthood outcomes. *Frontiers in Education, 4,* 56. doi:10.3389/feduc.2019.00056.

Karweit, N. (1985). Should We Lengthen the School Term? *Educational Researcher, 14*(6): 9-15.

Kauerz, K. (2005). *Full-Day Kindergarten: A Study of State Policies in the United States.* Washington, DC: Education Commission of the States.

Kilgore, S.B., and Pendleton, W.W. (1993). The Organizational Context of Learning: Framework for Understanding the Acquisition of Knowledge. *Sociology of Education, 66*(1): 63-87.

Kimbro, R.T., and Denney, J.T. (2015). Transitions Into Food Insecurity Associated With Behavioral Problems and Worse Overall Health Among Children. *Health Affairs*, *34*(11): 1949-2A.

Klein, A. (2016). The Every Student Succeeds Act: An ESSA Overview. *Education Week.* Retrieved July 27, 2020, from http://www.edweek.org/ew/issues/every-student-succeeds-act/.

Klingberg, T., Fernell, E., Olesen, P., Johnson, M., Gustafsson, P., Dahlstrom, K., Gillberg, C.G., Forssberg, H., and Westerberg, H. (2005). Computerized Training of Working Memory in Children With ADHD: A Randomized, Controlled Trial. *Journal of the American Academy of Child and Adolescent Psychiatry, 44*(2): 177-186.

Kochenderfer, B. and Ladd, G. (1996). Peer Victimization: Cause or Consequence of School Maladjustment? *Child Development, 67*(4): 1305-1317.

Kremer, K.P., and Kremer, T.R. (2019). Bullying Victimization and Disability Status Are Associated With Television Watching in Adolescence. *Journal of Child and Family Studies, 28*(12): 3479-3486.

Krueger, A.B. (2002). Understanding the Magnitude and Effect of Class Size on Student Achievement. In L. Mishel and R. Rothstein (Eds.), *The Class Size Debate*. Washington, DC: Economic Policy Institute.

Kochenderfer, B., and Ladd, G. (1996). Peer Victimization: Cause or Consequence of School Maladjustment? *Child Development*, *67*(4): 1305-1317.

Ladd, G.W., Buhs, E.S., and Seid, M. (2000). Children's Initial Sentiments About Kindergarten: Is School Liking an Antecedent of Early Classroom Participation and Achievement? *Merrill-Palmer Quarterly. 46*(2): 255-279.

Ladd, G.W., and Dinella, L.M. (2009). Continuity and Change in Early School Engagement: Predictive of Children's Achievement Trajectories From First to Eighth Grade? *Journal of Educational Psychology, 101*(1): 190-206.

LaParo, K.M., and Pianta, R.C. (2000). Predicting Children's Competence in the Early School Years: A Meta-Analytic Review. *Review of Educational Research, 70*(4)*:* 443-484.

Larsen, L.J. (2004). *The Foreign-Born Population in the United States: 2003. Current Population Reports P20-551.* Washington, DC: U.S. Bureau of the Census.

Lee, V., and Burkam, D.T. (2002). *Inequality at the Starting Gate: Social Background Differences in Achievement as Children Begin School*. Washington, DC: Economic Policy Institute.

Leithwood, K., Seashore Louis, K., Anderson, S., and Wahlstrom, K. (2004). *How leadership influences student learning*. New York: Wallace Foundation.

LeFevre, J., Skwarchuk, S.L., Smith-Chant, B.L., Fast, L., Kamawar, D., and Bisanz, J. (2009). Home Numeracy Experiences and Children's Math Performance in the Early School Years. *Canadian Journal of Behavioural Science, 41*(2): 55-66.

Li-Grining, C., Votruba-Drzal, E., Maldonado-Carreno, C., and Haas, K. (2010). Children's Early Approaches to Learning and Academic Trajectories Through Fifth Grade. *Developmental Psychology*, *46*(5): 1062-1077.

Lim, H., and Kim, J. (2011). A Longitudinal Study of Children's Social Behaviors and Their Causal Relationship to Reading Growth. *Asia Pacific Education Review*, *12*(2): 197-213.

Lo Casale-Crouch, J., Mashburn, A.J., Downer, J.T., and Pianta, R.C. (2008). Pre-Kindergarten Teachers' Use of Transition Practices and Children's Adjustment to Kindergarten. *Early Childhood Research Quarterly, 23:*124-139.

Lou, Y., Abrami, P.C., Spence, J.C., Poulsen, C., Chambers, B., and d'Apollonia, S. (1996). Within-Class Grouping: A Meta-Analysis. *Review of Educational Research*, *66*(4): 423-458.

Ma, X., Shen, J., Krenn, H. Y., Hu, S., and Yuan, J. (2016). A meta-analysis of the relationship between learning outcomes and parental involvement during early childhood education and early elementary education. *Educational Psychology Review, 28*(4), 771-801.

Maccoby, E., and Martin, J. (1983). Socialization in the Context of the Family: Parent-Child Interaction. In E.M. Hetherington (Ed.), P.H. Mussen (Series Ed.), *Handbook of Child Psychology: Vol. 4. Socialization, Personality, and Social Development* (pp.1-101). New York: Wiley.

Manlove, J. (1993). Multiple Correlates of Burnout in Child Care Workers. *Early Childhood Research Quarterly*, *8*(4): 499-518.

Manning, D. (2015). Cohabitation and Child Wellbeing. *Future Child*. *25*(2):51-56. Retrieved on June 11, 2020,
from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4768758/pdf/nihms730958.pdf.

Martínez, J., Stecher, B., and Borko, H. (2009). Classroom Assessment Practices, Teacher Judgments, and Student Achievement in Mathematics: Evidence From the ECLS. *Educational Assessment*, *14*(2): 78-102.

Matheny, A., Wachs, T., Ludwig, J., and Phillips, K. (1995). Bringing Order Out of Chaos: Psychometric Characteristics of the Confusion, Hubbub and Order Scale. *Journal of Applied Developmental Psychology, 16*(3): 429-444.

McCartney, K. (1984). Effect of Quality of Day Care Environment on Children's Language Development. *Developmental Psychology, 20*(2): 244-260.

McClelland, M.M., Acock, A.C., Piccinin, A., Rhea, S.A., and Stallings, M.C. (2013). Relations Between Preschool Attention Span-Persistence and Age 25 Educational Outcomes. *Early Childhood Research Quarterly, 28:* 314-324.

McClelland, M.M., Cameron, C.E., Connor, C.M., Farris, C.L., Jewkes, A.M., and Morrison, F.J. (2007). Links Between Behavioral Regulation and Preschoolers' Literacy, Vocabulary and Math Skills. *Developmental Psychology, 43*(4): 947-959.

McClelland, M.M., John Geldhof, G., Cameron, C.E., and Wanless, S.B. (2015). Development and Self-Regulation. In R.M. Lerner (Ed.), *Handbook of Child Psychology and Developmental Science* (pp.1-43). Hoboken, NJ: John Wiley & Sons.

McCoach, D.B., O'Connell, A.A., and Levitt, H. (2006). Ability Grouping Across Kindergarten Using an Early Childhood Longitudinal Study. *The Journal of Educational Research, 99*(6): 339-346.

McCormick, M.C., Gortmaker, S.L., and Sobol, A.M., (1990). Very-Low Birthweight Children: Behavior Problems and School Difficulty in a National Sample. *Journal of Pediatrics, 117*(5): 687-693.

McDermott, P.A. (2018). *Learning-To-Learn Scales*. Philadelphia: Edumetric and Clinical Science.

McDermott, P.A., Fantuzzo, J.W., Warley, H.P., Waterman, C., Angelo, L.E., Gadsden, V.L., and Sekino, Y. (2011). Multidimensionality of Teachers' Graded Responses for Preschoolers' Stylistic Learning Behavior: The Learning-to-Learn Scales. *Educational and Psychological Measurement, 71:* 148-169.

McLoyd, V., and Wilson, L. (1991). The Strain of Living Poor: Parenting, Social Support, and Child Mental Health. In A.C. Huston (Ed.), *Children in Poverty: Child Development and Public Policy* (pp. 105-135). New York: Cambridge University Press.

Medway, R.L., and Tourangeau, R. (2015). Response Quality in Telephone Surveys: Do Prepaid Cash Incentives Make a Difference? *Public Opinion Quarterly*, *79:* 524-543.

Meisels, S.J., Atkins-Burnett, S., and Nicholson, J. (1995). *Assessment of Social Competence, Adaptive Behaviors, and Approaches to Learning*. Background paper prepared for the Assessment Technical Review Panel, Early Childhood Longitudinal Study, National Opinion Research Center.

Mercer, A., Caporaso, A., Cantor, D., and Townsend, R. (2015). How Much Gets You How Much? Monetary Incentives and Response Rates in Household Surveys. *Public Opinion Quarterly*, *79*: 105-29.

Monte, L. (2020). *New Census Household Pulse Survey Shows More Households With Children Lost Income, Experienced Food Shortages During Pandemic.* Washington, DC: U.S. Census Bureau. Retrieved June 12, 2020, from https://www.census.gov/library/stories/2020/05/adults-in-households-with-children-more-likely-to-report-loss-in-employment-income-during-covid-19.html.

Moore, K., Hair, E., Vandivere, S., McPhee, C., McNamara, M., and Ling, T. (2006). Depression Among Moms: Prevalence, Predictors, and Acting Out Among Third Grade Children. *Child Trends Research Brief, 19:* 1-8.

Moore, K.A., Zaslow, M., Coiro, M.J, Miller, S.M., and Magenheim, F.B. (1995). *How Well Are They Faring? AFDC Families with Preschool-Aged Children in Atlanta at the Outset of the JOBS Program.* Washington, DC: U.S. Department of Health and Human Services.

Moore, K.A., Zaslow, M., Coiro, M.J., and Morrison, D.R. (1993). *Tabulations of the National Longitudinal Survey of Youth-Child Supplement.* Unpublished manuscript prepared for OMB submission for JOBS Observational Study, Washington, DC: Child Trends, Inc.

Morgan, P., Farkas, G., Tufis, P., and Sperling, R. (2008). Are Reading and Behavior Problems Risk Factors for Each Other? *Journal of Learning Disabilities*, *41*(5): 417-436.

Morgan, P.L., Frisco, M.L., Farkas, G., and Hibel, J. (2010). A Propensity Score Matching Analysis of the Effects of Special Education Services. *The Journal of Special Education*, *43*(4): 236-254.

Morrow, L.M., Strickland, D.S., and Woo, D.G. (1999). *Literacy Instruction in Half- and Whole-Day Kindergarten: Research to Practice.* Newark, DE: International Reading Association.

Moss, K., Dawson, L., Long, M., Kates, J., Musumeci, M. Cubanski, J. and Pollitz, K. (2020). *The Families First Coronavirus Response Act: Summary of Key Provisions*. Retrieved July 18, 2020, from https://www.kff.org/coronavirus-covid-19/issue-brief/the-families-first-coronavirus-response-act-summary-of-key-provisions.

Moulding, B., R. Bybee, and N. Paulson. (2015). *A Vision and Plan for Science Teaching and Learning*. Author: Essential Teaching and Learning Publications.

Mullis, I., Campbell, J., and Farstrup, A. (1993). *NAEP 1992 Reading Report Card for the Nation and the States*. Washington, D.C.: National Center for Education Statistics.

Nansel, T., Overpeck, M., Pilla, R.S., Ruan, W.J., Simmons-Morton, B., and Schmidt, P. (2001). Bullying Behaviors Among U.S. Youth. *Journal of American Medical Association*, *285*: 2094-2100.

National Association for the Education of Young Children. (1998). Learning to Read and Write: Developmentally Appropriate Practices for Young Children. *Young Children 53*(4): 30-45.

National Hearing Conservation Association. (2004). *Crank It Down.* NHCA Task Force on Hearing Conservation Education for Children and Adolescents, American Academy of Audiology. Aurora, CO: Author.

Neuman, S.B. (2002). *What Research Reveals: Foundations for Reading Instruction in Preschool and Primary Education.* Washington, DC: U.S. Department of Education.

Newacheck, P.W., and Hallfon, N. (1988). Preventive Care Use by School-Aged Children: Differences by Socioeconomic Status. *Pediatrics*, *82*: 462-468.

Newman, L.F. (1990). *Preventable Causes of Learning Impairment.* Unpublished manuscript, Brown University.

Nord, C.W., Brimhall, D., and West, J. (1998). *Fathers' Involvement in Their Children's School* (NCE 98-091). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Nystrand M., and Gamoran A. (1991). Instructional Discourse, Student Engagement, and Literature Achievement. *Research in the Teaching of English, 25*: 261-290.

Ogletree, C., and Robinson, K. (2016). The K-12 Funding Crisis. *Education Week*, *35*(31): 26-27.

Padilla, C.M., Cabrera, N., and West, J. (2017). *The Development and Home Environments of Low-Income Hispanic Children: Kindergarten to Third Grade.* Research Brief #2017-37. Bethesda, MD: National Research Center on Hispanic Children & Families. Retrieved July 17, 2020, from https://www.hispanicresearchcenter.org/wp-content/uploads/2019/08/Developmental-Profiles-V21.pdf.

Parker, J.G., and Asher, S.R. (1987). Peer Relations and Later Personal Adjustment: Are Low-Accepted Children "At Risk"? *Psychological Bulletin*, 102: 357-389.

Patterson, G.R., Reid, J., and Dishion, T.J. (1992). *Antisocial Boys*. Eugene, OR: Castalia.

Peisner-Feinberg, E., Burchinal, M., Clifford, R., Culkin, M., Howes, C., and Kagan, S. (2001). The Relation of Preschool Child-Care Quality to Children's Cognitive and Social Developmental Trajectories Through Second Grade. *Child Development*, *72*(5): 1534-1553.

Pellegrini, A.D., and Bohn, C.M. (2005). The Role of Recess in Children's Cognitive Performance and School Adjustment. *Educational Researcher, 34*(1): 13-19.

Peterson, J.L., and Zill, N. (1986). Marital Disruption, Parent-Child Relationships, and Behavior Problems in Children. *Journal of Marriage and the Family, 48*: 295-307.

Pettit, G.S., Laird, R.D., Bates, J.E., and Dodge, K.A. (1997). Patterns of After-School Care in Middle Childhood: Risk Factors and Developmental Outcomes. *Merrill-Palmer Quarterly, 43:* 515-538.

Philbin, M.M., Parker, C.M., Hirsch, J.S., and Flaherty, M.G. (2004). Public Libraries: A Community-Level Resource to Advance Population Health. *Journal of Community Health, 44:* 192–199. Retrieved September 14, 2023 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6329675/

Pianta, R.C., and Stuhlman, M.W. (2004). Teacher-Child Relationships and Children's Success in the First Years of School. *School Psychology Review, 33(*3): 444-458.

Ponitz, C.C., McClelland, M.M., Matthews, J.M., and Morrison, F.J. (2009). A Structured Observation of Behavioral Self-Regulation and Its Contribution to Kindergarten Outcomes. *Developmental Psychology, 45*(3): 605-619.

Posner, M.I., and Rothbart, M.K. (2006). *Educating the Human Brain*. Washington DC: American Psychological Association.

Powell, D.R. (1992). *Families and Young Children's School Readiness.* Paper prepared for the National Center for Education Statistics, Office of Educational Research and Improvement. Washington, DC: National Center for Education Statistics.

Puckering, C. (1989). Maternal Depression. *Journal of Child Psychology and Psychiatry*, *30*(6): 807-817.

Raffaele Mendez, L. Kim, E., Ferron J., and Woods, B. (2015). Altering School Progression through Delayed Entry or Kindergarten Retention: Propensity Score Analysis of Long-Term Outcomes. *Journal of Educational Research, 108*(3):186-203.

Rathbun, A., and West, J. (2004). *From Kindergarten Through Third Grade: Children's Beginning School Experiences* (NCES 2004-007). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Ready, D., LoGerfo, L., Burkam, D., and Lee, V. (2005). Explaining Girls' Advantage in Kindergarten Literacy Learning: Do Classroom Behaviors Make a Difference? *The Elementary School Journal*, *106*(1): 21-38.

Reardon, S., and Portilla, X. (2016). Recent Trends in Income, Racial, and Ethnic School Readiness Gaps at Kindergarten Entry. *AERA Open, 2*(3): 1-8. Retrieved June 14, 2020, from https://journals.sagepub.com/doi/pdf/10.1177/2332858416657343.

Reeves, P. M., Pun, W. H., and Chung, K. S. (2017). Influence of teacher collaboration on job satisfaction and student achievement. *Teaching and Teacher Education, 67*, 227-236.

Reczek, C., Spiker, R., Liu, H., and Crosnoe, R. (2016). Family structure and child health: Does the sex composition of parents matter? *Demography, 5:* 1605-1630.

Reuben, A., Rutherford, G. W., James, J., Razani, N. (2020). Association of neighborhood parks with child health in the United States, *Preventive Medicine, 141*: 1-18. Retrieved September 14, 2023 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8034548/pdf/nihms-1681367.pdf.

Rice, J.K. (2002). Making the Evidence Matter: Implications of the Class Size Research Debate for Policy Makers. In L. Mishel and R. Rothstein (Eds.), *The Class Size Debate*. Washington, DC: Economic Policy Institute.

Robers, S., Kemp, J., and Truman, J. (2013). *Indicators of School Crime and Safety: 2012* (NCES 2013-036/NCJ 241446). National Center for Education Statistics, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington, DC: National Center for Education Statistics.

Roberts, J., Jurgens, J., and Burchinal, M. (2005). The Role of Home Literacy Practices in Preschool Children's Language and Emergent Literacy Skills. *Journal of Speech, Language, and Hearing Research*, *48*(2): 345-359.

Rose, C.A., and Espelage, D.L. (2012). Risk and Protective Factors Associated With the Bullying Involvement of Students With Emotional and Behavioral Disorders. *Behavioral Disorders*, *37*(3): 133-148.

Rosenthal, M. (1991). Behaviors and Beliefs of Caregivers in Family Day Care: The Effects of Background and Work Environment. *Early Childhood Research Quarterly, 6:* 263-283.

Rucinski, C.L. (2019). *Variation in Exposure to Early Elementary Classroom Racial/Ethnic Diversity and Child Development in a Nationally Representative Sample* (Doctoral dissertation, Fordham University).

Rueda, M.R., Rothbart, M.K., McCandliss, B.D., Saccomanno, L., and Posner, M.I. (2005). Training, Maturation, and Genetic Influences on the Development of Executive Attention. *Proceedings from the National Academy of Sciences, 102*(41): 14931-14936.

Ruiz-Soto, A., Hooker, S., and Batalova, J. (2015). *Top Languages Spoken by English Language Learners Nationally and by State*. Washington, DC: Migration Policy Institute. Retrieved June 11, 2020, from https://www.migrationpolicy.org/research/top-languages-spoken-english-language-learners-nationally-and-state.

Ruopp, R., Travers, J., Glantz, F., and Goelen, C. (1979). *Children at the Center: Final Results of the National Day Care Study.* Cambridge, MA: Abt Associates.

Santana, C.C.A., Hill, J.O., Azevedo, L.B., Gunnarsdottir, T., and Prado, W.L. (2017). The Association Between Obesity and Academic Performance in Youth: A Systematic Review. *Obesity Reviews*, *18*(10): 1191-1199.

Sarampote, N.C., Bassett, H.H., and Winsler, A. (2004). Afterschool Care: Child Outcomes and Recommendations for Research and Policy. *Child and Youth Care Forum*, *35*: 329-348.

Scarborough, H.S. (2001). Connecting Early Language and Literacy to Later Reading (Dis)abilities: Evidence, Theory, and Practice. In S.B. Neuman and D.K. Dickinson (Eds.), *Handbook of Early Literacy Research.* New York: The Guilford Press.

Schneider, B., and J.S. Coleman. (1993). *Parents, Their Children, and Schools.* Boulder, CO: Westview Press.

Schneider, M., and Buckley, J. (2002). What Do Parents Want From Schools? Evidence From the Internet. *Educational Evaluation and Policy Analysis, 24*(2): 133-144.

Schulting, A.B., Malone, P.S., and Dodge, K.A. (2005). The Effects of School-Based Kindergarten Transition Practices on Child Academic Outcomes. *Developmental Psychology, 41:* 860-871.

Semega, J.L., Fontenot, K.R., and Kollar, M.A. (2017). *Income and Poverty in the United States: 2016.* (Report No. P60-259). Current Populations Reports. Retrieved July 27, 2020, from https://www.census.gov/library/publications/2017/demo/p60-259.html.

Shaefer, H., and Edin, K. (2018). *Welfare Reform and the Families It Left Behind*. Retrieved June 14, 2020, from https://inequality.stanford.edu/sites/default/files/Pathways_Winter2018_Families-Left-Behind.pdf.

Shonkoff, J.P. (1992). Health Care Policy and Part H Services: Early Intervention as a Concept. In J.J. Gallagher and P.K. Fuller (Eds.), *The Coordination of Health and Other Services for Infants and Toddlers With Disabilities: The Conundrum of Parallel Service Systems.* Urbana-Champaign, IL: University of North Carolina at Chapel Hill.

Shonkoff, J., Slopen, N., and Williams, D. (2021). Early childhood adversity, toxic stress, and the impacts of racism on the foundation of health. *Annual Review of Public Health, 42*: 115-134.

Singer, D.G., and Singer, J.L. (2006). Fantasy and Imagination. In D.P. Fromberg and D. Bergen (Eds.), *Play From Birth to 12: Contexts, Perspectives, and Meanings* (pp. 371-378). New York: Routledge.

Singer E., Van Hoewyk J., and Maher M.P. (2000). Experiments with incentives in telephone surveys. *Public Opinion Quarterly, 64*(2):171-188.

Singer, E., and Cong, Y. (2013). The Use and Effects of Incentives in Surveys. *Annals of the American Academy of Political and Social Science*, *645*: 112-141.

Skinner, A. C., Ravanbakht, S. N., Skelton, J. A., Perrin, E. M., and Armstrong, S. C. (2018). Prevalence of obesity and severe obesity in US children, 1999–2016. *Pediatrics*, *141*(3).

Skinner E.A., Wellborn J.G., and Connell J.P. (1990). What It Takes to Do Well in School and Whether I've Got It: The Role of Perceived Control in Children's Engagement and School Achievement. *Journal of Educational Psychology, 90*(82): 22-32.

Slavin, R.E. (1987). Ability Grouping and Student Achievement in Elementary Schools: A Best-Evidence Synthesis. *Review of Educational Research, 57*(3): 293-336.

Smaldone, A., Honig, J., and Byrne, M. (2007) Sleepless in America: Inadequate Sleep and Relationships to Health and Well-Being of Our Nation's Children. *Pediatrics, 119*(1): S29 -S37.

Snow, C.E., Burns, M.S., and Griffin, P. (1998). *Preventing Reading Difficulties in Young Children. Committee on the Prevention of Reading Difficulties in Young Children*. Washington, DC: National Academy Press.

Society for Research in Child Development. (2018). *January 2018 Policy Update*. Retrieved July 17, 2020, from https://mailchi.mp/srcd/january-2018-policy-update-1240941?e=23b1c0acc6.

Sonnenschein, S., and Sun, S. (2017). Racial/Ethnic Differences in Kindergartners' Reading and Math Skills: Parents' Knowledge of Children's Development and Home-Based Activities as Mediators. *Infant and Child Development*, *26*(5).

Spreen, T.L., House, L.A., and Gao, Z. (in press). The Impact of Varying Financial Incentives on Data Quality in Web Panel Surveys. *Journal of Survey Statistics and Methodology*.

Stähli, E. and Joye, D. (2016). Incentives as a Possible Measure to Increase Response Rates. *The SAGE Handbook of Survey Methodology* (pp. 425-440). California: Sage Publications, Ltd.

Stallings, J.A., and Stipek, D. (1986). Research on Early Childhood and Elementary School Teaching Programs. In M.C. Wittrock (Ed.), *Handbook of Research on Teaching* (pp. 727-753). New York: Macmillan Publishing Company.

Stanley, M., Roycroft, J., Amaya, A., Dever, J.A., and Srivastav, A. (2020). The Effectiveness of Incentives on Completion Rates, Data Quality, and Nonresponse Bias in a Probability-Based Internet Panel Survey. *Field Methods*, *32:* 159-179.

Storch, S., and Whitehurst, G. (2001). The Role of Family and Home in the Literacy Development of Children From Low-Income Backgrounds. *New Directions for Child and Adolescent Development*, *92*: 53-72.

Stutz, F., Schaffner, E., and Schiefele, U. (2016). Relations Among Reading Motivation, Reading Amount, and Reading Comprehension in the Early Elementary Grades. *Learning and Individual Differences*, *45:*101-113.

Sullivan, A. L., Houri, A., and Sadeh, S. (2016). Demography and early academic skills of students from immigrant families: The kindergarten class of 2011. School Psychology Quarterly, 31(2), 149–162. https://doi.org/10.1037/spq0000137.

Supovitz, J., Sirinides, P., and May, H. (2010). How principals and peers influence teaching and learning. *Educational Administration Quarterly, 46*(1), 31-56. doi:10.1177/1094670509353043.

Sy, S., and Schulenberg, J. (2005). Parent Beliefs and Children's Achievement Trajectories During the Transition to School in Asian American and European American Families. *International Journal of Behavioral Development, 29*(6): 505-515.

Talbert, J.E., and McLaughlin, M.W. (1994). Teacher professionalism in local school contexts. *American Journal of Education, 102*: 123-153.

Tamis-LeMonda, C.S., Luo, R., McFadden, K.E., Bandel, E.T., and Vallotton, C. (2019). Early Home Learning Environment Predicts Children's 5th Grade Academic Skills. *Applied Developmental Science*, *23*(2): 153-169.

Taylor, R.D., Oberle, E., Durlak, J.A., and Weissberg, R.P. (2017). Promoting Positive Youth Development Through School-Based Social and Emotional Learning Interventions: A Meta-Analysis of Follow-Up Effects. *Child Development*, *88*(4): 1156-1171.

Teddlie, C., Kirby, P., and Stringfield, S. (1989). Effective Versus Ineffective Schools: Observable Differences in the Classroom. *American Journal of Education, 97:* 221-236.

Thompson, J. A., and Sonnenschein, S. (2016). Full-day kindergarten and children's later reading: The role of early word reading. *Journal of Applied Developmental Psychology, 42*, 58-70.

Tompson, M., Pierre, C., Boger, K., McKowen, J., Chan, P., and Freed R. (2010). Maternal Depression, Maternal Expressed Emotion, and Youth Psychopathology. *Journal of Abnormal Child Psychology, 38*(1): 105-17.

Ujifusa, A., and Tully, S. (2016). ESSA May Offer Megaphone for Parent, Community Voices: Advocates See Chance for Greater Impact Under New K-12 Law. *Education Week, 35*(25): 1. Retrieved April 25, 2020, from https://www.edweek.org/ew/articles/2016/03/23/essa-may-offer-megaphone-for-parent-community.html.

Umberson, D., and Thomeer, M. (2020). Family Matters: Research on Family Ties and Health, 2010 to 2020. *Journal of Marriage and Family, 82:* 404-419.

Underwood, M., Beron, K., Gentsch, J., Galperin, M., and Risser, S. (2008). Family Correlates of Children's Social and Physical Aggression With Peers: Negative Interparental Conflict Strategies and Parenting Styles. *International Journal of Behavioral Development*, *32*(6): 549-562.

U.S. Department of Agriculture (USDA), Food and Nutrition Service (2020). *State Guidance on Coronavirus Pandemic EBT (P-EBT)*. Retrieved July 18, 2020, from https://www.fns.usda.gov/disaster/pandemic/covid-19/maryland#snap.

U.S. Department of Agriculture (USDA), Food and Nutrition Service (2021). *Fact Sheet: United States Department of Agriculture Provisions in H.R. 1319, the American Rescue Plan*. Retrieved May 5, 2021, from https:// www.usda.gov/media/press-releases/2021/03/10/fact-sheet-united-states-department-agriculture-provisions-hr-1319.

U.S. Department of Education, National Center for Education Statistics. (2000). *America's Kindergartners* (NCES 2000-070). By Denton, K., Germino-Hausken, E., and Project Officer, Jerry West. Washington, DC: Author.

U.S. Department of Education. (2015). *The Condition of Education*. Washington, DC: Author. Retrieved July 17, 2020, from https://nces.ed.gov/programs/coe/indicator_cgf.asp.

U.S. Department of Education. (2017). *Reimagining the Role of Technology in Education: 2017 National Education Technology Plan Update*. Washington, DC: U.S. Department of Education, Office of Educational Technology.

U.S. Department of Education, National Center for Education Statistics. (2020). The Digest of Education Statistics, 2019 (NCES 2020-009).

U.S. Department of the Treasury (2020). *The CARES Act Work for All Americans.* Retrieved July 18, 2020, from https://home.treasury.gov/policy-issues/cares.

U.S. Department of the Treasury (2021). *Fact Sheet: The American Rescue Plan Will Deliver Immediate Economic Relief to Families*. Retrieved May 5, 2021, from https://home.treasury.gov/system/files/136/Fact-Sheet-03-18-21.pdf.

Ventura, S.J. (2009*). Changing Patterns of Nonmarital Childbearing in the United States*. NCHS data brief, no. 18. Hyattsville, MD: National Center for Health Statistics.

Walston, J., and West, J. (2004). *Full-Day and Half-Day Kindergarten in the United States: Findings From the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99*. (NCES 2004-078). Washington, DC: National Center for Education Statistics.

Wang, M., Haertel, G., and Walberg, H. (1990). What Influences Learning? A Content Analysis of Review Literature. *Journal of Educational Research, 84*: 30-43.

Waters, T., Marzano, R. J., and McNulty, B. (2003). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement*. Aurora, CO: Mid-Continent Research for Education and Learning.

Webb, N., and Lowther, M. (1993). Organizational Commitment of Child Care Providers Employed in Centre Facilities. *Journal of Child and Youth Care, 8*: 1-16.

Weeland, J., Keijsers, L. and Byrne, S. (2021) Introduction to the Special Issue: Parenting and Family Dynamics in Times of the COVID-19. *Developmental Psychology*, 57: 1559-1562.

Wilkinson, S. (2017). *Mathematics development in Spanish-speaking English language learners.* PhD (Doctor of Philosophy) thesis, University of Iowa. Retrieved July 27, 2020, from https://ir.uiowa.edu/cgi/viewcontent.cgi?article=7356&context=etd.

Williams, D., Brick, J.M., Montaquila, J.M., and Han, D. (2016). Effects of Screening Questionnaires on Response in a Two-Phase Postal Survey. *International Journal of Social Research Methodology*, *19:* 51-67.

Wimberley, C. E. (2011). *Teacher collaboration and student achievement* (Doctoral dissertation, Lindenwood University).

Witte, J. (2001). *The Market Approach to Education: An Analysis of America's First Voucher Program*. Princeton, NJ: Princeton University Press.

Wolf, S., Magnuson, K., and Kimbro, R. (2017). Family Poverty and Neighborhood Poverty: Links With Children's School Readiness Before and After the Great Recession. *Children and Youth Services Review*, *79*: 368-384. Retrieved June 15, 2020, from https://scholarship.rice.edu/bitstream/handle/1911/107874/nihms-984695.pdf?sequence=1.

Xue, Y., and Meisels, S.J. (2004). Early Literacy Instruction and Learning in Kindergarten: Evidence From the Early Childhood Longitudinal Study – Kindergarten Class of 1998-1999. *American Educational Research Journal, 41* (4): 191-229.

Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M.R., Espinosa, L.M., Gormley, W.T., Ludwig, J., Magnuson, K.A., Phillips, D., and Zaslow, M.J. (2013). *Investing in Our Future: The Evidence Base on Preschool Education*. New York: Foundation for Child Development.

Zhou, Q., Hofer. C., Eisenberg, N., Reiser, M., Spinrad, T., and Fabes, R (2007). The developmental trajectories of attention focusing, attentional and behavioral persistence, and externalizing problems during school-age years. *Developmental Psychology,43*(2):369-85.

Zill, N., Moore, K.A., Smith, E.W., Stief, T., and Coiro, M.J. (1991). *Life Circumstances and Development of Children in Welfare Families: A Profile Based on National Survey Data*. Washington, DC: Child Trends, Inc.