Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011)

Spring Fourth-Grade National Data Collection and Fifth-Grade Recruitment

OMB Clearance Package
1850-0750 v.16

Supporting Statement

Part B & C

Prepared by

National Center for Education Statistics
U.S. Department of Education

Table of Contents

Collection of Information Employing Statistical Methods B

This submission requests an update of the most recent previously obtained clearance for the ECLS-K:2011 spring third-grade data collection (OMB No. 1850-0750 v.15). This current submission describes the procedures for the spring fourth-grade data collection, which has been informed by the experiences and results of the ECLS-K:2011 kindergarten, first-grade, second-grade, and third-grade data collection rounds, the ECLS-K:2011 pilot tests, and the ECLS-K data collections.

B.1 Universe, Sample Design, and Estimation

Section B.1.1 includes information on the study universe of interest and the sampling plan implemented in the base-year of the national ECLS-K:2011 study. Section B.1.2 describes the precision requirements and target sample sizes set out for the study. Section B.1.3 describes the sample plan implemented in the first- through third-grade years. Section B.1.4 discusses the sample design for the spring fourth-grade data collection.

B.1.1 Universe and Sample Design

The universe for the ECLS-K:2011 includes all children attending kindergarten or of kindergarten age being educated in ungraded settings in the 2010-11 school year in the 50 states and the District of Columbia. The sample design for the ECLS-K:2011 kindergarten year produces a sample that is nationally representative of this population of children in the United States. In the base year (i.e., kindergarten year), children were selected using a multistage probability design. In the first stage, 90 primary sampling units (PSUs) that are counties or groups of counties were selected with probability proportional to size (PPS). In the second stage, public and private schools offering kindergarten programs or programs for children of kindergarten age in an ungraded setting were selected, also with PPS, within the sampled PSUs. The third-stage sampling units were children in kindergarten programs and five-year-old children (i.e., children of kindergarten age) in ungraded schools and classrooms. Children were selected within each sampled school using equal probability systematic sampling. Asians, Native Hawaiians, and Other Pacific Islanders were

sampled at a higher rate so as to achieve a minimum required sample size in order to generate reliable estimates for them and to meet the study precision requirements discussed in section B.1.2. Although they were oversampled as one group, the numbers of completed interviews for children in the Asian group and children in the Native Hawaiian and Other Pacific Islander group were large enough in the kindergarten year to produce estimates for each of these two groups separately.

The ability to generate reliable estimates and meet study precision requirements are as important for Hispanics, Blacks, and children of other races who are not part of the Asian or Native Hawaiian and Other Pacific Islander groups as they are for children oversampled in the API group. However, children in these subgroups do not have to be oversampled because their expected sample sizes exceed the required minimum sample size for meeting the precision requirements.

Only base-year respondents[1] are eligible for data collection after the kindergarten year. The data collections after the kindergarten rounds are named to refer to the grade most of the study children are expected to be in during that round of data collection. For example, the spring 2015 data collection is called the fourth-grade data collection because most of the study children are expected to be in fourth grade at that time. However, after kindergarten, children are included in the data collection regardless of their grade at the time of collection. Additionally, children are included in the study regardless of their school enrollment status after the first round in which they first participated; thus, children who become homeschooled remain part of the study.

While ideally the study would follow all base-year respondents who move from their original schools after the spring of kindergarten, it is expensive to do. Significant effort must be made to locate students and to obtain permission to assess them in their new schools. As the study progresses, student mobility has a more serious impact on the cost of collecting data because the number of schools children attend increases. The most expensive children to survey are these children who change schools, who are referred to as movers, because collecting data on them requires additional efforts to get permission from the entities from which permission is required (e.g., from new districts and school administrators). Also, cost per completed case is increased when there are fewer children per school, and it is

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[1] A student needs to have either a complete parent interview or a child assessment in fall 2010 or spring 2011 to be included in the study as a base-year participant/respondent.

often the case that when children change schools, they are the only study child in the school to which they move. Due to the high cost of following children who change schools, children who move from the school they attended in kindergarten are subsampled for follow-up and inclusion in later rounds of collection. The study design calls for a subsampling rate of 50 percent. The design allows for this rate to be increased or decreased as the study progresses if it becomes necessary to do so in order to achieve end-of-study study sample size targets, given the number of respondents in each round of data collection.

There are some situations in which children who change schools will be not subsampled for follow-up but instead will be followed with certainty. The first involves the movement of a group of children from one school to a different school because their original school did not educate children past a certain grade or the school closed. For example, many schools originally sampled for the study educate children only through kindergarten, and all of the children in the school had to move to a different school after the kindergarten year. Schools to which at least four children from original schools move are identified as destination schools for study purposes, and all children who move to those destination schools will be followed with certainty. There are three other groups of children that will not be subsampled: students whose primary home language is not English (language minority (LM) students), students who have had Individualized Education Program (IEP) or who have had an Individualized Family Service Plan (IFSP),[2] and students who were sampled for the fall first- and fall second-grade data collections, which were conducted in a 30 percent subsample of the study PSUs. These groups will be followed with certainty to assure that there are enough of them in the last round of data collection to generate reliable estimates for them.

B.1.2 Precision Requirements and Sample Sizes

An objective of the ECLS-K:2011 is to obtain a minimum level of reliability for estimates pertaining to the cohort as a whole as well as for analytical subgroups, such as Asians, Native Hawaiians and Other Pacific Islanders, Blacks, Hispanics, private school kindergartners, and language minority children. Four precision requirements for the survey were identified and formed the basis for the base-year

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[2] Children are identified as having an IEP using information collected from the school coordinator at the time of the pre-assessment call. This information is based on the child's current information and receipt of services. Parents were asked in the fall of kindergarten whether their children had an IFSP before turning 3.

sample design and plans for the subsequent rounds. These requirements are the ability to do the following:

- Measure a relative change of 20 percent in proportions across waves;
- Measure a relative change of 5 percent in a mean assessment score across waves;
- Estimate a proportion for each wave with a coefficient of variation (CV) of 10 percent or less; and
- Estimate a mean assessment score for each wave with a CV of 2.5 percent or less.

The precision requirements that drive the sample design, which are the same as those used in the ECLS-K, are related to the ability to estimate changes over time and the precision of estimates in the fifth-grade ECLS-K:2011 data collection for the sample as a whole, as well as for subgroups of analytic interest. The ECLS-K:2011 sample design began with the assumption, based on the ECLS-K experience, that at least 10,300 completed cases would be needed by the end of fifth grade to satisfy the study's precision requirements.

For the ECLS-K:2011, the minimum subgroup sample size is determined by first solving for the sample size needed to achieve the precision requirements under simple random sampling with 100 percent overlapping samples between waves using the formula:

$$n=\frac{\left[z_{1-\alpha/2}\sqrt{2(1-\rho)\bar{P}\bar{Q}}-z_{1-\beta}\sqrt{P_1Q_1+P_2Q_2-2\rho\left(P_1Q_1P_2Q_2\right)^{1/2}}\right]^2}{\left(P_2-P_1\right)^2},$$

where n is the sample size per wave, α is the significance level, β is the power term, z has the standard normal distribution, ρ is the correlation between two waves, P_1 and P_2 are the two proportions being compared, $Q_1=1-P_1$, $Q_2=1-P_2$, $\bar{P}=\frac{P_1+P_2}{2}$, and $\bar{Q}=1-\bar{P}$. When $\alpha=0.05$, $\beta=0.80$, $\rho=0.75$, $P_1=0.30$, and $P_2=0.36$, the sample size needed per wave is 241.[3] Assuming a design effect of 4 (based on the ECLS-K), this subgroup sample size would need to be further increased by a factor of 4 to

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[3] The assumptions underlying the calculation of sample size noted here are: a two-tailed test of differences with significance level alpha of 0.05 and power beta of at least 80 percent; estimating proportions of 30 and 36 percent (i.e., a 20 percent relative change); and a correlation between assessment scores from different waves of 0.75. This assumed correlation of assessments comes from experiences in the ECLS-K. Specifically, looking at difference estimates computed between grade 1 and grade 3, and between grade 3 and grade 5 of the ECLS-K, the estimated correlations in assessments between consecutive waves were found to be very high (between 0.72 and 0.98), for an average of 0.75.

964, since the effective sample size is equal to the sample size actually obtained divided by the design effect.

The assumptions used to arrive at the sample size by the end of the longitudinal study include the completion rates for the child assessments, as well as the rates at which children move from the base-year sampled school to other schools, the rates at which the movers would be subsampled after the base year (children who changed schools between fall- and spring-kindergarten were not subsampled), and the rates at which the subsampled movers are expected to be located. A complete case, also referred to as a respondent, is a child who has a completed child assessment or a completed parent interview. For the ECLS-K:2011, an original sample of 900 responding schools (720 public and 180 private) with an average sample size of 23 children in each school was expected to yield approximately 20,700 sampled children (18,630 participating students, assuming a 90 percent response rate) in the base year. However, during the first round of data collection in the kindergarten year, the sample was smaller than expected due to a lower-than-expected school cooperation rate, and also due to slightly lower kindergarten enrollment in the schools than was expected based on enrollment data from NCES's Common Core of Data and Private School Survey universe data files. In order to achieve a number close to the original target for participating schools, refusing schools were substituted with newly sampled schools and an attempt was made to obtain the new schools' participation. The study ended the base-year data collections with a sample of about 18,170 kindergarten children, which is about 460 children fewer than expected.

The original sample design for the ECLS-K:2011 used information about the movement of ECLS-K children after each data collection year and how successful the study was at locating the children to calculate the sample sizes and mover subsampling rate that would be necessary to meet precision requirements. In the ECLS-K, children who moved to another school (but not necessarily residence) were followed at a rate of 50 percent in grade 1, slightly higher in grade 3 so that all language minority children were followed, and slightly lower in grade 5 to accommodate a reduction in the overall sample size. The grade 5 subsampling rates varied according to child characteristics with the highest rate applied to language minority children. The initial ECLS-K:2011 study design was developed with the assumption that 25 percent of students would change schools between kindergarten and first grade and that 50 percent of movers would be followed. As mentioned above, the design allows for that rate to increase or decrease as

necessary in order to achieve target sample sizes, in particular the 10,300 cases needed at the end of fifth grade, similar to the procedures used in the ECLS-K.

B.1.3 Sample Design for the Spring First-Grade, Spring Second-Grade, and Spring Third-Grade Data Collections

The samples for the spring first-, spring second-, and spring third-grade data collections included all students who are considered respondents for the base-year data collection and who had not moved outside of the United States or died by the time of data collection. All the respondents in the base year who remained in their original school (i.e., the school in which they were sampled) or who moved to a destination school were followed with certainty. Movers who were LM students, students who have had an Individualized Education Program (IEP), and students who were sampled for the fall first- and fall second-grade data collections were also followed with certainty.

Due to cost considerations, the remaining movers (i.e., the movers who are not LM/IEP students or part of the fall subsamples) were subsampled for following at a rate of 50 percent, per the original sample design plan. Thus, these movers had a 50 percent chance of being included in the spring first-grade, spring second-grade, and spring third-grade collections. Subsampling movers was implemented by selecting 50 percent of the original sample schools using systematic probability sampling. In the selected schools, a group of non-protected students was selected to be followed into their new schools if they moved from their original school. This designation as a non-protected student to be followed holds for the life of the study, with one exception: students whose parent indicated that they had an Individualized Family Service Plan, or IFSP, before age 3. Like LM students and students with an IEP, the study intended to follow these students with certainty. However, due to an identification error in the earlier rounds of the study, they were not followed with certainty and, instead, were included in the group of students to be followed at a rate of 50 percent. Despite this lack of protection, the vast majority of students who had an IFSP (88 percent) were followed across all rounds of the study and are eligible for the fourth-grade data collection, either because they did not change schools or because they had an IEP and became part of the protected group as a result of the IEP.

It was not necessary to increase the subsampling rate for either the spring first-, spring second-, or spring third-grade grade data collections because the rate at which children moved from their original schools was lower than expected (i.e., there was a higher-than-expected number of nonmovers, who are always followed). In the ECLS-K:2011, approximately 5 percent of children sampled in the beginning of kindergarten were not in the same school at the end of the 2010-11 school year, meaning they moved between the fall of kindergarten and the spring of kindergarten. By the end of first grade and prior to the start of second grade, the percentage of students who had moved out of their original sample schools (at any point after the fall of kindergarten) increased to 23 percent. This is 2 percentage points lower than the assumed mover rate noted above that was used in estimating the expected final sample size in the original sample design plan. By the end of second grade, 32 percent of students were movers, again 2 percentage points lower than the assumed rate of 34 percent. The original sample design plan included the assumption that 43 percent of students sampled in kindergarten would not be in the same school by the end of third grade. As of the date of submission of this package (which is before the data collection for third grade has ended), tracking operations indicate that approximately 39 percent of students moved out of their original school. This is lower than the assumed rate of 43 percent. It is expected that there will be approximately 12,900 respondents (child or parent) to the third-grade data collection, which should be sufficient to achieve the end of study target.

B.1.4 Sample Design for the Spring Fourth-Grade Data Collection

As in the spring first-, spring second-, and spring third-grade data collections, the spring fourth-grade sample will include all students who are considered respondents for the base-year data collection and who have not moved outside of the United States or died by the time of data collection. Base-year respondents who remain in their original school (i.e., the school in which they were sampled) or who move to a destination school will be followed with certainty.

The same general subsampling strategy used for first grade, second grade, and third grade will be used again for fourth grade. LM students, students with an IEP on record with the school, and students who were sampled for the fall first- and fall second-grade data collections will be followed with certainty if they transfer out of their original sample schools. Those students who had an IFSP, were not identified to be followed with certainty in previous rounds, and were not subsampled out in a

previous round will be followed with certainty in the fourth-grade data collection. Other movers will be subsampled for following at a rate of 50 percent. There were 14,447 respondents from the second-grade data collection, which is at least 900 students more than the expected sample size of approximately 13,500 for second grade. We expect that there will be approximately 12,900 and 11,700 respondents for the third- and fourth-grade data collections, respectively. This would yield approximately 11,000 respondents by the end of fifth grade.

B.2 Procedures for the Collection of Information

Section B.2.1 describes the data collection procedures for the spring fourth-grade data collection.

B.2.1 Spring Fourth-Grade Data Collection

The spring fourth-grade data collection will include direct child assessments, child questionnaires, measurement of children's height and weight, parent interviews, and school administrator and teacher (both general classroom and special education) questionnaires. Computer assisted interviewing (CAI) will be the mode of data collection for the child assessment and the parent interview. The Child Questionnaire (CQ) will be administered using audio-CASI, which allows for self-administration. School administrator and teacher data will be collected via hard-copy self-administered questionnaires.

Advance School Contact. In the fall of the 2014-15 school year, school coordinators[4] will be sent a welcome package via Federal Express with a signature requirement. The package will include a letter describing the study activities planned for the spring, the role of the school coordinator, and instructions for providing information on the participating children. The list of children participating in the study will be sent separately from the other study materials so that, in the event of loss, the children on the list are not associated with the study, thereby protecting their identity as study participants. The spring fourth-grade data collection will utilize the ECLS-K:2011 Message Center which was created and used

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[4] The school coordinator acts as the liaison between study staff and their school. Coordinators will often be the same school staff member who acted as school coordinator in the previous data collection round. If that person is not available, then a new staff member will be identified by the school administrator to act as a liaison to the study.

in the previous round to allow field staff and school coordinators to communicate personally-identifiable information (PII) electronically. The message center is a secure website accessed with a username and password that has been assigned to specific users, namely field staff (field managers, school recruiters,[5] and team leaders[6]) and participating schools. Instructions for the school coordinators to access their information will be included in the package with the other study materials sent in the fall. School coordinators will only be able to access information and messages for their particular school. The list of participating children will then be sent to each school from the home office as an attachment to a secure message sent through the messaging system. The school coordinator will be instructed to access the secure message center, open the attached list of participating children, and provide updated child information to the team leader either via secure message or over the telephone when a field staff member calls.

During this fall contact period, an experienced team of school recruiters will work with the school coordinators to discuss the logistics of the spring assessment visit. Additionally, school recruiters will confirm whether the children on the list sent to the school are still enrolled in the school. If the school coordinator informs the school recruiter that a child has moved to a new school, the school recruiter will attempt to get the child's new school information from the school coordinator. School recruiters will also determine:

- **Assessment Dates.** The school recruiters will discuss the schedule for spring data collection with the school coordinator. The dates for the assessment schedule will be set, making sure to avoid conflicts with any special events in the school's calendar, such as a field trip or school holiday.

- **Assessment Locations.** The locations within the school where the assessments will take place will also be determined. The goal will be to identify locations that provide as little distraction as possible, that protect the privacy of the children, and that are as nondisruptive of the school routine as possible.

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[5] School recruiters are specially-trained data collection contractor staff who recruit districts and schools into the study. They are typically used in advance school contacts because they have experience in talking with school staff and discussing logistical arrangements, as well as recruiting new transfer schools that are identified during the pre-assessment contacts.

[6] The team leader is a specially-trained ECLS-K:2011 staff member responsible for communicating with schools and making arrangements for assessment activities; for leading a team of assessors in each school; for conducting assessments him/herself; for recording school, child, parent, and teacher information in the field management system; and for reporting assessment and parent interview production information to the field manager. The field manager is responsible for the management of all data collection activities in a region of approximately 100 schools, including the supervision of approximately 10 assessment teams, quality control, and reporting assessment, interview, and hard-copy production information to the home office field directors.

- **Teachers of Sampled Children.** School recruiters will ask the school coordinator to identify the ECLS-K:2011 children's reading teacher and either a math or science teacher. ıf applicable, they will also be asked to identify a special education teacher or related service provider.

School recruiters will make a pre-assessment telephone call to each school coordinator to discuss these issues, making sure to address any questions that the school coordinator or school administrator may have. A checklist of the arrangements that need to be agreed upon and the tasks to be completed will guide the pre-assessment call. As noted above, school recruiters will work with the school coordinator to schedule a spring assessment date, determine an assessment location, and identify the teacher (or teachers) of the sampled child. If any of the sampled children are identified as having changed schools, a study information packet will be sent to the school administrator of the new school and he or she will be contacted by telephone in order to recruit the school into the study and identify a school coordinator. A pre-assessment call to discuss the issues outlined here will then be conducted with the new school. Throughout these pre-assessment activities, positive and cooperative working relationships with school personnel and the school community will be maintained.

In the spring of the 2014-15 school year, the team leaders will assume responsibility for the contacts with the schools. They will call the school coordinators prior to the assessment visit to confirm the logistical arrangements for the data collection within the schools that were made during the fall pre-assessment call. (In addition to the telephone, the team leaders will also continue to use the secure message center to communicate with school coordinators on topics that are respondent-specific, such as new information about a child who has moved to a new school.)

Child Questionnaire and Direct Assessment

Typically, the assessment visit will take between 1 and 3 days in each school. The number of days for the visit will depend on several factors, such as the number of participating children at the school, any restrictions on the assessment schedule (e.g., if assessments can only be conducted in the morning), and the amount of space available for simultaneous assessments. The length of the assessment visit will be worked out with the school coordinator during the pre-assessment call. Generally, the assessment team that visits the school will include the team leader and two assessors, though sometimes an additional assessor or two will participate in an assessment visit when a larger number of children needs to be assessed in a

shorter time frame due to the school calendar. There will be one team per PSU. The assessment team will arrive at the school on the appointed first day of assessments and, following any of the school's required check-in procedures, immediately contact the school coordinator. The team leader will introduce the assessors to the school coordinator. The procedures to be used during the on-site data collection period will be discussed with the school coordinator to ensure there is a common understanding of those procedures. The team leader also will confirm that all sampled children are still enrolled in the school as of the assessment day and determine which children are at school that day. New school contact information will be obtained for any children who may have left the school after the preassessment call.

On assessment day, the team leader and assessors will be taken by school personnel to the assessment area(s), where they will remove potential distractions as much as possible and establish a comfortable environment for conducting the assessment. They will set up the assessment materials and log into the child assessment CAI program on the laptops that they will carry with them. All field staff will be provided with backup batteries, cords, etc., to ensure that data collection activities are not disrupted by equipment problems.

Once the assessment areas have been set up and assessors are ready to begin work, the school coordinator will introduce the ECLS-K:2011 team members to the teacher(s) whose children will be assessed. The teacher, in turn, will introduce the assessors to the class. Assessors will then escort the sampled children to the assessment areas, one-by-one, and conduct each 80-minute direct child assessment. As discussed in Part A, the assessments will consist of the following: a self-administered child questionnaire; a direct assessment of reading, mathematics, science, and executive functioning; and measurement of children's weight and height, which will be obtained using instruments and equipment brought by the assessors.

As in second and third grade, but unlike the kindergarten and first-grade cognitive assessments, the cognitive assessment fielded in fourth grade will not include a language screener, an assessment of English basic reading skills, or a Spanish assessment, as it is expected that by fourth grade most, if not all, children will be proficient enough in English to be assessed in English.

When the assessor and study child arrive at the assessment space, the assessor will introduce the child to the task and begin the audio-CASI Child Questionnaire. The assessor will explain how to use the headphones, adjust the volume, and to choose responses to the questions by touching choices on the laptop's screen. The questionnaire starts with an example item to show the child how the task works and to give him/her practice choosing responses. The instructions, example, and questionnaire items are all read to the child while the corresponding text appears on the screen. The child is able to skip questions, as well as change responses to previously-answered questions. During the CQ, the assessor will sit with his/her body averted in order to give the child privacy while responding. After the questionnaire is completed, the assessor will thank the child and then turn the computer back to face the assessor to begin the cognitive assessments in reading, mathematics, executive function, and science, which are administered using CAPI.

After completing the cognitive assessments, the child's height and weight will be measured and then the child will be returned to the classroom and the next sampled child will be assessed. At the end of each day, once the assessors are home, the data for their completed assessments will be transmitted electronically to a central database by each team leader and assessor.

It is expected that some children will be absent from school when the assessments are scheduled. Certain days throughout the field period will be designated as days on which some field staff can conduct make-up assessments. Attempts will be made to conduct a make-up assessment at some point during the field period for all children absent on their school's assessment day.

If a school refuses to participate (e.g., the school has changed its mind and no longer wishes to participate in the ECLS-K:2011) and attempts to convert the school's refusal are unsuccessful, then the study will attempt to assess the sampled children outside of the school. Other circumstances where a child may be assessed outside of school include when sampled children transfer into a school that never agreed to participate in the study or into a school in a district that refused to allow its schools to participate, or when sampled children are no longer enrolled in a school and are being homeschooled.

Prior to assessing a child outside of school, the assessor will contact the parent to confirm that the child is enrolled in a school that has not agreed to participate in the study for the current round of data collection (referred to as a refusal school) or is

still being homeschooled. If the parent informs the assessor that the child has transferred out of a refusal school and into another school, the assessor will collect information about the school into which the child has transferred (referred to as a transfer school), and attempts will be made to assess the child in the transfer school. However, if it is determined that the child either attends a refusal school (or a school in a refusal district) or is homeschooled, the assessor will ask the parent when and where he or she would like the assessment to take place. Possible locations for the child assessment include a library, an after-school program location, or the child's house. The assessor will try to accommodate the preferences of the parent as much as possible.

Teacher and School Administrator Questionnaires

During the advance school contact in the fall and again in the spring of the 2014-15 school year, the team leader will identify the reading, mathematics, and science teachers of the sampled children who will be asked to complete questionnaires and enter the teachers' names into the field management system (FMS),[7] creating a link between each sampled child and his or her teachers. This linking system was first developed and used successfully for the ECLS-K and is currently being used in the ECLS-K:2011 data collections.

The spring fourth-grade hard-copy questionnaires and associated study materials will be mailed to each school coordinator for distribution to teachers and the school administrator at least 2 weeks prior to the school's scheduled spring assessment visit. For teachers, these materials will consist of a letter describing the ECLS-K:2011 and a copy of the ECLS-K:2011 brochure,[8] one background questionnaire, relevant subject-specific questionnaire(s) for each sample child the teacher teaches, an incentive check, and instructions for completing the questionnaires and returning them to the school coordinator. For administrators, these materials will consist of the School Administrator Questionnaire (SAQ), instructions for completing the SAQ, and returning it to the school coordinator, and an incentive check.

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[7] The Field Management System (FMS) is a secure web-based system designed to help team leaders manage and view their cases, enter and update case information at the school, child, parent, and teacher levels, and communicate information to the contractor's home office.

[8] The ECLS-K:2011 brochure was approved in a previous OMB clearance package that was approved in May 2010 (1850-0750, v.8).

Distributing the Teacher and School Administrator Questionnaires. In the spring fourth-grade collection, reading, mathematics, and science teachers will be asked to complete two types of self-administered questionnaires.[9]

1. The teacher-level questionnaire (TQ) includes questions about the teachers, such as their views on the school climate, their evaluation methods used for reporting to parents, and their background and education.
2. The second is a subject-specific questionnaire (TQC) that has two parts. Part 1 contains child-level questions that ask the teacher to rate the child identified on the cover of the questionnaire on academic and social skills, school engagement, and classroom behaviors. Part 2 contains classroom questions pertaining to the reading, mathematics, or science class in which the sampled student is taught. Specifically, teachers are asked how much time the class spends on specific skills and activities – skills aligned with the Common Core State Standards. This second section also contains questions on instruction and grading practices, behavioral issues, and homework assignments.[10]

There are three versions of the TQC—one for reading, one for mathematics, and one for science. Many of the questions contained in the instruments are similar, with the only difference being the focal subject of the question. The reading teacher questionnaire does include some additional items that are not subject specific and only need to be asked about each child one time, for example those related to the child's socioemotional development. These items are included in the reading teacher questionnaire because every child's reading teacher will be asked to participate in the study. The teacher questionnaires will provide data from a source that has first-hand knowledge of the child and his/her abilities.

To further reduce burden on teachers, one "key child" will be identified for each subject and class. The key child will be identified by a red dot on the cover of the questionnaire. Teachers will be asked to complete all items in both the child-level (Part 1) and the classroom (Part 2) sections of the TQC only for the designated key child; for the remainder of the sampled children in that key child's reading, math, or science class a teacher will only need to complete the questions in the child-level section of the TQC. This strategy allows for the collection of classroom information for all children in a given class, although the teacher only needs to complete the questions once (for the key child).If the teacher teaches multiple sections of a

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[9] While most students will be in fourth-grade in spring 2014, not all students will be "on-grade." These data collection activities still apply regardless of the grade level of the student and teacher (i.e., off-grade students will have the same teacher questionnaires distributed to their teachers that are given to teachers of on-grade students).

[10] These questions focus on concepts and skills delineated by the Common Core State Standards (corestandards.org). See section C of this document for more detail on these questions.

subject, a key child will be identified for each section of that subject that he or she teaches. The teacher would then be asked to complete the classroom questions for each of the key children; that is, for each section of the subject he or she teaches to at least one study child.

To summarize, each identified teacher will complete a TQ, as well as one TQC for each sampled child taught in their designated subject. However, for each TQC they complete, the teacher will only complete one classroom section for each the key child identified for that teacher; for all other TQCs, she will only complete the child-level section of the TQC.

As described above, the school recruiter will work with the school coordinator to identify the teachers of the ECLS-K:2011 children during the advance school contact phone call. Child-level questionnaires will be mailed to the school coordinator for distribution to the children's teachers. The average number of children per teacher is expected to be about two; we have proposed that the teachers of the sampled children who are asked to complete the teacher-level questionnaire receive an incentive of $20 plus $7 per child-level questionnaire, for an average incentive of $34 per teacher. The incentives will be included in the package of instruments and instructional materials the teachers receive in the spring.

In the spring, the special education teachers or related service providers of sampled children who are receiving special education services will also be asked to complete questionnaires about their background and qualifications. They also will be asked to answer questions about the types of services the ECLS-K:2011 children who have an IEP receive in a separate child-level questionnaire. The Special Education Teacher Questionnaires will be distributed and collected in the same manner as the regular classroom teacher questionnaires described above. In order to have a consistent incentive structure for all teachers participating in a school, special education teachers will also be offered an incentive of $20 plus $7 per child-level questionnaire, and the expectation is that each special education teacher will complete two child-level questionnaires, on average, for an average incentive of $34 per teacher. The incentives will be included in the package of instruments the special education teachers receive in the spring.

Also in the spring, school administrators will be asked to complete a self-administered questionnaire. There will be two versions of the School Administrator Questionnaire: one for schools that completed an SAQ in a prior round of the study

("continuing schools") and one for any school that did not previously complete the SAQ, either because the school is a new school into which an ECLS-K:2011 student has transferred or because the school did not complete the SAQ in any previous study round ("new schools"). In order to reduce respondent burden, the administrator questionnaire for continuing schools will not contain questions about characteristics that are unlikely to change from year to year that had been included in the SAQ in previous rounds. Information about the school administrator, the school staff, and the school building will be collected through this questionnaire. The questions about school characteristics may be completed by a designee, but the study requests that the principal or head administrator complete the section about his/her characteristics. School administrators will receive a $25 incentive, which will be attached to the questionnaire when it is given to the administrator.

Collecting the Teacher and School Administrator Questionnaires. The team leader for each school will collect the school staff questionnaires, with assistance from the school coordinator, during the on-site assessment visit. On the first day of assessments at the school, the team leader will remind the school coordinator of the need for school staff to complete the hard-copy questionnaires and will collect any that have already been completed.

Once all questionnaires have been collected, the team leader will mail the completed questionnaires to the home office via Federal Express with signature required upon receipt. If there are any questionnaires that have not been completed by the beginning of the last day on-site for assessments, the team leader will remind the school coordinator about the questionnaires once more. If any questionnaires still are not completed by the time the team has finished its assessment work at the school, the team leader will ask for a specific date from the school coordinator and/or school administrator by which the questionnaires will be completed. The team leader will then visit the school at that later date to collect the remaining questionnaires and use Federal Express to return them to the home office.[11]

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[11]If questionnaires have to be collected after the school visit is completed, the team leader will stop by the school on a prearranged date to pick up the questionnaires. However, on rare occasions, arrangements are made with the school coordinator to have questionnaires mailed to the home office. In these cases, the team leader will give the school coordinator a Federal Express mailer and prepaid label to mail the questionnaires to Westat. Such mailings may occur if a follow-up visit cannot be arranged or if the questionnaires are not completed by the time of the follow-up visit and another visit by the team leader to the school cannot be arranged.

Parent Interview

The ECLS-K:2011 field staff who conduct the child assessments will also be trained to conduct the telephone interviews with parents using a computer assisted telephone interviewing (CATI) instrument. Having the same staff members conduct the child assessments and the parent interview better links the activities that take place in the school with the parent interviews, which may in turn promote greater parent participation. Similarly, an effort is made to have the same staff members interview the same parents and/or assess the same children that they worked with in previous rounds (as long as the prior interaction was positive). The list of parent interview cases assigned to each field staff member will be loaded on the laptops when field staff receive them, with new cases being transmitted as they become available (e.g., when a parent interview case gets transferred from one interviewer to another).

Flexibility in Scheduling Interviews. Procedures for conducting telephone interviews at times that are most convenient for parents and that allow sufficient flexibility will be used. To establish initial contact with a parent of a sampled child during the spring fourth-grade round, field staff will be trained to place two day, three evening, and two weekend calls over a 3-week period. If, after these seven call attempts, no contact has been made with the parent by telephone, the field staff will visit the child's home to explain the study and attempt to complete an in-person interview. Once telephone contact is established, up to seven additional calls will be made to complete the parent interview. If the interview is still not completed after seven calls and the respondent has not actively refused to participate, the field staff will swap cases amongst the members of their team in order to allow another interview to attempt an in-person interview. Sometimes having a different interviewer call from a different phone number has a positive effect on completion. During the last few weeks of data collection, cases that have not yet been contacted or completed will be attempted as in-person interviews.

Non-English Interviewing. The ECLS-K:2011 sample includes a substantial number of children from households in which the parents speak a language other than English as their primary language. Based on the data from the spring 2013 second-grade data collection, Spanish is spoken in the majority of these households.[12] Of the approximately 12,110 completed spring 2013 parent

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[12] Because data from the spring 2014 third-grade data collection are not available at the time of this submission, data are reported from the spring 2013 second-grade round.

interviews, about 1,510 were completed in a foreign language. Of those, about 1,370 (or 91 percent) were completed in Spanish. Therefore, as was done for the ECLS-K:2011 previous round data collections, the parent interview will be fully translated into Spanish and field staff will be recruited who are bilingual in Spanish and English to conduct parent interviews in Spanish. A number of Asian and other languages were also identified in the kindergarten data collections as spoken by parents of sampled children, but in much smaller numbers. It is cost-prohibitive to develop a full translation of the parent interview for less common languages and identify and train bilingual staff that represent all languages spoken by ECLS-K:2011 families. Therefore, the primary approach for conducting parent interviews in non-English, non-Spanish languages in the ECLS-K:2011 has been to identify someone in the household or community to provide a translation during the administration of the parent interview. All translators must sign an affidavit of nondisclosure prior to working on the project and are paid for their time. Over the course of the previous rounds of data collections, interpreters (either field staff or members of the respondent's household) have been identified for the less common languages that are spoken by sampled children's parents; they will serve as interpreters for the spring fourth-grade data collection as needed, if they are still available.

B.3 Methods to Secure Cooperation, Maximize Response Rates, and Deal with Nonresponse

This section describes methods for securing cooperation and gaining consent for the spring fourth-grade round of the ECLS-K:2011 and the methods that will be used to maximize completion rates for child assessments, parent interviews, and school administrator and teacher questionnaires in this round.

A major challenge in any survey today is obtaining high response rates, and this is even more important in longitudinal surveys where nonresponse can occur at multiple time points. As in most longitudinal surveys, attrition is closely associated with those persons who move between waves; however, as mentioned earlier, "moving" in the ECLS-K:2011 is defined as a change in the school the sampled child attends, whether or not the child's residence changes. By the middle of the spring third-grade data collection (the most recent information available at the time of this submission), the percent of students who moved out of their original sample schools (at any point after fall kindergarten) was about 39 percent.

The main problem associated with nonresponse is the potential for nonresponse bias in the estimates produced using data collected from those people who do respond. Bias can occur when the people who do respond are systematically different from the people who do not. Two approaches that will be used to reduce the potential for bias are designing the data collection procedures and methods wisely to reduce nonresponse (e.g., being flexible in scheduling parent interviews) and using statistical methods of sampling and weighting to reduce the effect of nonresponse on the estimates. While the statistical approaches are important in controlling biases and costs, the data collection procedures and methods are at the heart of a successful longitudinal survey.

B.3.1 Gaining Cooperation from a Variety of Sources

Cooperation issues loom large in any major school-based survey today. The demands of required testing, which have increased since the enactment of ESEA 2002, may reduce time for and willingness to participate in voluntary studies like the ECLS-K:2011, such that districts and schools may be increasingly less likely to cooperate. Parents are increasingly skeptical about the value of surveys and non-required tests for their children. Teachers and school administrators are heavily burdened and often reluctant to spend time on non-teaching activities or other activities required as part of their position. The additional burden of a longitudinal survey (and the need to communicate clearly to parents and schools the expected burden of participation in a longitudinal survey) makes securing cooperation even more challenging. The earlier rounds of the ECLS-K:2011 are paving the way for concerted follow-up efforts in later rounds by collecting high quality data that will help maintain cooperation and track movers.

The data collection plan approaches the school as a community. The study aims to establish rapport with the whole community—school administrators, teachers, parents, and children. The school community must be approached with respect and sensitivity to achieve high response rates and maintain cooperation for future rounds of data collection.

The ECLS-K:2011 field staff have been trained that all tasks—securing school and teacher cooperation, completing parent interviews, and completing the child components—are but different aspects of a single case in their assignment, which is their responsibility to complete. Therefore, field staff will be responsible for conducting the direct child assessments and child questionnaires as well as the

parent interviews and any required follow up on the teacher and school administrator questionnaires. Also, incentives have proven to be effective tools in achieving high response rates, and we plan to offer monetary incentives to various respondents, as described in section A.9.

Most families who participated in kindergarten have continued to participate in the later rounds, presumably because they feel invested in the study. Similarly, schools typically continue to participate once they participate in one round. Of the approximately 950 schools sampled during the ECLS-K:2011 kindergarten rounds, 87 percent, still had children enrolled and were participating in the spring 2014 third-grade round. Only 10 or so of the 950 schools from which children were sampled had declined to continue participation. The fact that parents have given consent to the longitudinal study is an incentive for schools to continue participating. In addition, many school coordinators are instrumental in maintaining school participation and recruiting new teachers into the study in later rounds because they see the value in the information collected and, as a result, serve as an advocate for the study in the schools.

B.3.2 Methods to Maximize Response Rates

Parent Interviews

Prior to data collection, as the parent interview is developed, careful consideration is given to the length of the interview, as well as the actual questions that are included in the instrument. By streamlining the interview as much as possible, and including relevant, concise questions, the effort needed to complete the questionnaire is reduced, which in turn helps to increase response rates.

There are four main areas during the field period itself that are also emphasized in order to maximize completion rates for the parent interviews: (1) flexibility in scheduling interviews, (2) non-English interviewing, (3) locating parents of children who transfer schools, and (4) avoiding refusals, including converting initial refusals to completed interviews.

Review of Timings Data. The average length of time to complete the previous round's interview, as well as each section of the instrument, is carefully reviewed to determine if questions should to be cut entirely or simplified to keep the interview to the desired time. After the first draft of the fourth-grade parent interview was

developed, timings tests with parents of fourth graders were conducted to obtain a general idea of the length so that the length of the interview could be further adjusted. (See section A.1.5 for a summary of the timing tests and resulting changes to the parent interview.) The results of the timing test indicated that the interview was longer than desired, so questions were eliminated to shorten it. Completion rates typically improve when the interview is shorter in length.

Consideration of Questions. As the instrument is developed, consideration is given to which questions asked in prior rounds do not need to be asked again, are no longer relevant due to the age of the children, or that have been reported to be overly burdensome or sensitive. As much as possible, the interview is streamlined so the questions included are straight-forward and easy for respondents to answer. In addition, skip patterns based on answers to questions that appear earlier in the interview or even in a previous round are built into the interview so that not all questions need to be asked of all parents.

Flexibility in Scheduling Interviews. Effective calling patterns are essential for achieving high response rates on all telephone surveys. Previous experience shows that individual respondent schedules (work, classes, recreational activities, vacations, etc.) have a more negative effect on response when call attempts are limited to a short time span. A larger percentage of the cases that are noncontacts after the first call attempt will be converted to a successful contact if the call attempts are distributed across a longer time span. Completion rates improve when interviewers call on different days of the week and at varying times of the day and evening.

To establish initial contact with a parent of a sampled child during the spring fourth-grade round, field staff will be trained to place two weekday, three evening, and two weekend calls over a 3-week period. These calls will be made in a nonsequential set of targeted time periods called "time slices." The time slices and required number of calls are as follows:

	Required Number of Calls
▪ Weekday 10 a.m. to 3 p.m.	1
▪ Weekday 3 p.m. to 6 p.m.	1
▪ Weekday 6 p.m. to 9 p.m.	1
▪ Weekday 6 p.m. to 7:30 p.m.	1
▪ Weekday 7:30 p.m. to 9 p.m.	1
▪ Saturday or Sunday, 10 a.m. to 8 p.m., on separate weekends	2

If after seven call attempts no contact has been made with the parent, the field staff will be instructed to review the case with the team leader for additional instruction on how to proceed. The team leader may instruct the field staff to do one or more of the following: (1) send an email or handwritten note to the parent; (2) contact the school coordinator to see if the school can help or offer any insight into contacting the parent; (3) attempt to contact the parent using alternative contact information or methods listed for the parent, if any (i.e., call another phone number); (4) contact the nonresident parent, if applicable; (5) assign the case to another field staff member for a fresh approach and a new voice; or (6) conduct an in-person visit to the parent's home.

Once contact is established, up to seven additional calls will be made to complete the parent interview. If the interview is not completed after these seven additional calls and the respondent has not explicitly refused, the field staff may be instructed by their team leader to attempt an in-person interview. During the last few weeks of data collection, noncontact and uncompleted cases will be visited in-person as appropriate.

Non-English Interviewing. In the spring second-grade data collection the ECLS-K:2011, 12 percent of the approximately 12,110 completed parent interviews were conducted in a language other than English.[13] To achieve high response rates, it is important that study procedures work to include these parents to the greatest extent possible. As described in the data collection procedures section, we will hire and train field staff who are bilingual in Spanish and English to conduct fully translated parent interviews in Spanish and use home and community interpreters, as available, for interviews in non-English, non-Spanish languages.

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[13] Because data from the spring 2014 third-grade data collection are not available at the time of this submission, data are reported from the spring 2013 second-grade round.

Locating Parents of Transfer Children. Locating parents of transfer children is critical for maintaining high completion rates for parent interviews overall and helps reduce nonresponse bias. It is expected that a substantial portion of participating children will transfer schools between rounds of data collections. A tracking system database with household contact and school information was developed at the beginning of the study and the sample tracking activities described in Part A will be conducted to locate children who transfer schools. Maintenance of this tracking database will be an important activity for the lifetime of the study, with updates of new information occurring through the final data collection round.

If children transfer to a school that is outside of a sampled PSU, they are not assessed; however, interviewers still attempt to contact the parent and conduct the parent interview, thereby retaining these cases as study participants. If the child transfers to a school that is in a sampled PSU, an attempt is made to complete all components of the study.

Refusal Avoidance and Conversion Procedures. Achieving an acceptable parent response rate will require active and effective refusal conversion efforts. Given that most of the parents will have participated in previous data collection rounds, a key factor in converting refusals is the ability of the team leaders and assessors to clearly and confidently convey the purpose of the repeated data collections and the importance of parents' continued participation in the study, including the benefits that will be derived from it. This will be a focus of the field staff training. The training materials for averting refusals direct field staff to become thoroughly familiar with the study and include activities designed to help field staff: 1) answer frequently asked questions (FAQs) and respond to respondent objections, 2) draft responses to FAQs in the interviewer's own words, 3) practice saying these responses, and 4) diagnose respondent objections and quickly respond with a response tailored to the objection. The training includes modules on preparing answers for different situations, using the voice effectively, and role-plays between trainers and interviewers. Additional training will cover how to avert refusals, focusing specifically on addressing reasons for refusals on the parent interview component of the ECLS-K:2011 study.

During the parent interview data collection period, team leaders and field managers will review initial refusals (i.e., a refusal by a respondent after the first recruitment effort) with the field staff, putting a particular emphasis on reviewing the

interviewer record of calls, which will be available to supervisory staff (i.e., team leaders and field managers) on a weekly basis. If a parent refusal occurs, the interviewer will be instructed to record key demographic information about the refusing respondent (e.g., sex, approximate age) and the respondent's reason(s) (if given) for refusing to participate. This information will be evaluated by the team leader to determine the best strategy for converting refusals. Cases identified for refusal conversion will be assigned to a select group of field staff identified as possessing the necessary skills to act as refusal converters. During data collection, field managers will hold telephone conferences with the identified field staff to review the refusal conversion procedures and discuss strategies for converting refusals.

Child Questionnaires and Assessments

There are three main areas that can be focused on in order to maximize completion rates for the child questionnaires and assessments: (1) conducting make-up assessments with children who are absent on scheduled assessment days, (2) locating transfer children, and (3) assessing children at home.

Absent Children. It is expected that some children will be absent from school during the time that assessments are scheduled at their school. Days on which some field staff have no assessments scheduled will be set aside throughout the field period so that those staff can conduct make-up assessments. A make-up assessment will be conducted for any child who is unable to be assessed during his/her school's scheduled assessment day(s) and who can be assessed at some other point during the field period. If an in-school make-up assessment cannot be scheduled, team leaders will contact parents to make arrangements to assess these children outside of school, if possible.

Locating Transfer Children. As is the case with the parent interview, locating transfer children and the new school in which they are enrolled is critical for maintaining high completion rates for child assessments overall and reducing nonresponse bias.

There is an additional consideration with locating children who transfer schools, which is the need to contact their new schools and teachers and encourage them to participate (if a child transfers to a school not already participating in the ECLS-

K:2011), thereby allowing the children to be assessed in the school. This issue is discussed further in the next section.

Assessing Children at Home. As children transfer, they may move to schools that decide not to participate in the study. In these cases, every effort is made to assess the child at home or in a neutral location, such as a public library. Often the field staff can interview the parent in-person before or after the assessment as well. Assessing children at home allows for the inclusion of these children in the study, even when schools decline to participate in the study.

School and Teacher Instruments

There are three main areas that can be focused on in order to maximize completion rates for the teacher and school administrator hard-copy instruments: (1) consideration of the length of the interview, (2) early distribution of instruments to schools and teachers, (3) effective communication of the importance of school administrator and teacher participation to school personnel, regardless of whether they participated in a prior round, and (4) efforts made by field staff to avoid refusals and to convert initial refusals to cooperating respondents.

Review of Timings Data. Prior to data collection, as the self-administered questionnaires are developed, consideration is given to the length of the instruments. Timing tests of the teacher questionnaires were conducted in the spring of 2014. Teachers were asked to complete the teacher-level questionnaire and one subject-specific questionnaire and record the length of time it took to complete each section of the instruments. The timing test results showed that the completion time of the teacher instruments was reasonable and would not be expected to negatively affect completion rates. On average, most teacher respondents reported in the cognitive interviews that they would be willing to spend a maximum of 20 to 30 minutes answering a questionnaire; this expectation is in line with the estimates for the teacher instruments.[14] (See section A.1.5 for a summary of the timing tests.)

Early Distribution of Instruments. Feedback from school administrators and teachers in the ECLS-K indicated that there would have been increased study

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[14] As reported in section A.1.5, the TQ is expected to take slightly less than 13 minutes to complete. The reading TQC is expected to take about twenty-six and a half minutes for completion, the math TQC is expected to take thirteen and a half minutes to complete, and the science TQC is expected to take about twelve minutes to complete.

participation if they had had more time to complete the hard-copy instruments. Along with an increased honorarium model, the distribution of the questionnaires early enough in the school year to allow staff sufficient time to complete them is critical. For the spring fourth-grade data collection, most of the sampled children's reading, math, and science teachers and special education teachers, as well as the school administrators, will be identified during the advance school contact in the fall of the fourth-grade school year. School and teacher questionnaires, along with the incentive checks, will be sent in February of the school year, to allow sufficient time for these respondents to complete and return the instruments to their school coordinator for field staff to collect on assessment day.

Effective Communication with School Staff. The participation of school administrators and teachers (especially new school administrators and teachers, either at schools to which study children have transferred or at schools that participated in the earlier rounds) can be increased by effectively communicating information about the ECLS-K:2011, including the goals of the study, what the study measures, the various study components, why it is important that schools and teachers participate, the study activities to date, study plans for the future, and selected results from the ECLS-K and ECLS-K:2011. Effective respondent materials, as well as telephone contact by school recruiters who are trained to convey this information efficiently and completely, will help maximize the participation of schools to which sample children transfer. In addition, parental consent was recorded for all children who had a completed parent interview in the kindergarten data collection, so a record of consent will be available for their new schools.[15] If children with a completed parent interview move into a new school, his/her recorded consent will be reviewed and verified by project staff and a hard-copy consent form will be produced documenting the recorded consent. This recorded consent should make it easier to recruit new schools and teachers to participate, because they will have written documentation of the parent's consent for the student to participate in the study.

Avoiding Refusals and Converting Initial Refusals. Team leaders will be trained to maximize the response rates for the hard-copy instruments, which will

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[15]In the base year, roughly 70 percent of the schools required that the study obtain active parent consent for the child's participation. Other schools required only passive consent in which the parent was sent a notification consent form for the parent to return only if s/he objected to the child's participation. The study followed the consent procedure required by the school or district. If a child transfers from a school that requires passive consent to a school that requires active consent, and recorded consent is not available because the parent interview was not completed for that child, field staff will contact the parent and attempt to obtain a signed consent form.

include being flexible in the timing in which they collect the questionnaires from teachers, following up with the school administrators and teachers to prompt the completion of the questionnaires, and returning to the school after the assessment visit to pick up questionnaires from school coordinators or other school staff. Team leaders will be trained to apply the general refusal aversion techniques to the collection of hard-copy questionnaires. These techniques will include analyzing the reasons for refusal, responding appropriately, and using their voice effectively.

District and school personnel have stated that they face increasing demands upon their schools for a variety of noninstructional activities, including requirements for state and district assessments. Sensitivity to these concerns is essential to gaining cooperation for the ECLS-K:2011, and it must be made clear to school system personnel at all levels that the ECLS-K:2011 staff is more than willing to work with them to facilitate their participation with the least burden and disruption possible.

Statistical Approaches to Nonresponse

One of the methods employed to reduce the potential for nonresponse bias is adjustment of the sample weights. If people with certain characteristics are systematically less likely than others to respond to a survey, the collected data may not accurately reflect the characteristics and experiences of the nonrespondents, which can lead to bias. To adjust for this, respondents are assigned weights that, when applied, result in them representing their own characteristics and experiences as well as those of nonrespondents with similar attributes. After the base year, the weights are also raked to sampled-based control totals in order to maintain the background characteristics of the sample. This is another method used to reduce the potential for nonresponse bias in the estimates produced from the data. As described above, the study will subsample movers using a scheme that follows some groups of students at higher rates than other movers to protect the sample sizes and statistical power for analyzing these groups of children. The subsampling in and of itself does not reduce nonresponse bias; rather by subsampling, the same fixed resources can be allocated to a smaller number of children so that higher response rates for subgroups can be achieved. The higher response rates lessen the potential for nonresponse bias to exist in the data.

Response rates will be computed for all the instruments fielded in the study. Data collected through any instrument with a response rate less than 85 percent will be evaluated for nonresponse bias. In addition to comparing the characteristics of

respondents and nonrespondents using data that are available from the sampling frames (for example, school type and school locale from the school frame for evaluating bias at the school level, or student background characteristics collected from the school for student sampling for evaluating bias at the student level), we will also compare study estimates to estimates from other available sources that include a similar population (for example, estimates common to the ECLS-K:2011 and the National Household Education Survey). The nonresponse bias analysis will be similar to the analyses conducted for the ECLS-K and earlier rounds of the ECLS-K:2011, and that were reported in study methodology documentation (for the most recent ECLS-K methodology report published, see http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009003). A methodology report covering the ECLS-K:2011 is being developed and will cover nonresponse bias analysis conducted for the ECLS-K:2011. For the base year and first grade, analyses of nonresponse bias were conducted using multiple methods such as comparing estimates from the study to those produced using frame data, comparing estimates from the study to other data sources, and comparing estimates produced using weights that include adjustments for nonresponse to estimates produced using weights without nonresponse adjustments. In general, the results of the nonresponse bias analysis do not suggest there are problems with the quality of the ECLS-K:2011 data.

B.4   Individuals Responsible for Study Design and Performance

The following individuals are responsible for the study design and the collection and analysis of the data for the ECLS-K:2011.

Jill McCarroll, NCES	(202) 219-7002	Karen Tourangeau, Westat	(301) 251-8265
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The ECLS-K:2011 Instrument Details [C]

C.1 Introduction

This section provides information about the general contents of the ECLS-K:2011 parent interview, the regular teacher and special education teacher questionnaires, and the school administrator/principal questionnaire. Appendixes A (Child Questionnaire), B (Parent Interview), C (Teacher Questionnaire), D (Subject-specific Child-level Questionnaires for Teachers), E (Special Education Teacher Questionnaires), and F (School Administrator Questionnaires) include the final survey instruments for the national spring fourth-grade data collection. Appendix H summarizes the links between items in the instruments, constructs, and research questions.

The design of the ECLS-K:2011 and the survey instruments is guided by a conceptual framework of children's development and learning that emphasizes the interaction among the various environments which 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:2011 uses data from multiple respondents (e.g., parents, teachers) so that information about each of the environments children experience can be collected from the people most likely to provide accurate and reliable data. The respondent interviews and questionnaires included for the spring fourth-grade round of the study and the general topics covered in each include:

> **Parent Interview**—to be administered to the parents/guardians of children in the study. In the spring of fourth grade, the parent interview includes questions about parent involvement with the school; family structure; the home environment; neighborhood safety; whether and how long the child takes care of him or herself before or after school; nonresident parents; discipline; communication with the child; parent depression and health; household food security; parent education; parent employment; and household income. Parents also report on their children's working memory, as well as their physical activity, health, and any disabilities the

children may have. New to the fourth-grade data collection are questions about parents' use of a computer or other electronic device to find out about children's homework, school assignments, grades, and how children at the school are doing as a group; parent reports of the child's grades; the frequency that the child avoids school; family monitoring of what the child looks at online and how many hours are spent online; children's friendships; how frequently the parent and child argue; and overall life stress in the past 12 months.

School Administrator/Principal Questionnaire—to be completed in the spring fourth-grade data collection by the school administrator or principal 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 fourth grade; and questions about the school administrator/principal and about the teaching staff. A few new constructs were added: communication with parents through online formats and a group of items about implementation of the Common Core State Standards in the school, if applicable.

General Classroom Teacher Questionnaires—to be completed by classroom teachers of children in the study. In the spring of fourth-grade, there are two teacher questionnaires. (See Part B for further information questionnaire distribution.)

- The teacher-level questionnaire (TQ) will be completed by each teacher and focuses on subjects taught by the teacher and the distribution of class time across subjects and activities, the teachers' evaluation methods used for reporting to parents, attitudes about the school climate and towards teaching, and educational background (including professional development) and teaching experience.

- The subject-specific child-level questionnaire (TQC) contains two sections: one that collects data about the individual study child and one that collects class-level information by targeting the class and section of "key children." In Part 1 of the TQC, teachers are asked to rate the child identified on the cover of the questionnaire on academic and social skills, school engagement, and classroom behaviors. In addition, the first part contains questions about the child's attendance, English language learning status, specific programs and services, instructional group placement, and his/her parents' involvement in the school. Part 2 of the TQC contains questions on how much time the key child's class spends on specific skills and activities – skills aligned with the Common Core State Standards. This second section also contains broader questions on instruction and evaluation practices, practices related to Response to Intervention (RtI) programs, behavioral issues, and homework assignments in the key child's class. There are three versions of the TQC; the reading, mathematics, and science TQCs have questions

that pertain to the specified subject. Each child will have a reading teacher complete the reading TQC about him/her. Each child will also have either a mathematics or science teacher complete the corresponding mathematics or science TQC about him/her.

Two new constructs have been added for fourth grade – aspects of the child's interactions with peers, the influences of those peers, and the extent to which the child likes or dislikes aspects of attending school.

Special Education Teacher Questionnaires—to be completed in the spring fourth-grade data collection by the special education teacher or service provider for children in the study who have an Individual Education Program (IEP). There are two questionnaires for the special education teacher. The first questionnaire includes questions about the teacher's background, training, and school assignment. The second questionnaire has questions about the study child who has an IEP, including items about child's disability and services the child receives. One new item asking about the use of service animals is included in the fourth-grade Special Education Teacher Questionnaires.

The data from these instruments can be used in conjunction with the data obtained in the ECLS-K:2011 direct assessments, along with the data from the questionnaires and interviews from previous rounds of the ECLS-K:2011, 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 over time. The following sections include research questions that may be addressed with the data from each instrument as well as a discussion of some of the important topics covered by each instrument.

C.2   ECLS-K:2011 Parent Interview

The children in the ECLS-K:2011 come from a broad range of family and community backgrounds and enter school 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:2011. Conducting interviews with parents and guardians is vital to obtaining the information necessary to measure how child and family characteristics are related to school experiences over time. The ECLS-K:2011 interviews the child's parent or guardian in the household who knows the most about the child's care, education, and health.[16] If the parent or guardian is not

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[16] After the first round of data collection, interviewers ask to speak with the previous round's respondent. If that person is not available during the field period, the interviewer asks to speak with someone who is available and is knowledgeable about the child's care, education, and health.

available during the field period, or if there is no parent or guardian in the child's household, another adult in the household who knows about the child's care, education, and health is selected as the respondent.

C.2.1 Spring Fourth-Grade Parent Interview

Research questions related to the ECLS-K:2011 spring fourth-grade parent interview are shown below.

C.2.1.1 Spring Fourth-Grade Parent Interview: Research Questions

PQ1: What is the status of children's development (as defined by cognitive, social, and emotional development; behavior; and physical status measures)? How does children's development vary by child and family social, demographic, and contextual characteristics at the end of the fourth-grade year?

PQ2: How are variations in children's developmental status (as defined by ECLS-K:2011 cognitive, socioemotional, physical, health, and disability measures) at the end of fourth grade related to later success in school?

PQ3: How do family sociodemographic and contextual characteristics influence later success in school within and across outcome domains and within sex and racial/ethnic subgroups?

PQ4: How do family processes and parenting practices (e.g., home environment, family activities, and cognitive stimulation) relate to children's developmental status and social and emotional adjustment? How do critical family processes and parenting practices influence later success in school?

PQ5: How does parental involvement in children's education relate to school performance over the course of the early grades? Do parental involvement levels differ by family social, demographic, and contextual characteristics? What forms of parent involvement are most influential for children's outcomes? What school factors are related to parental involvement? Are school or teacher practices to involve parents associated with higher levels of parent involvement?

PQ6: How many children take care of themselves on a regular basis before and after school, and how many hours on average do they do this? How does self-care before and after school vary by child and family social, demographic, and contextual characteristics? How is self-care related to children's progress through school?'

C.2.1.2 Spring Fourth-Grade Parent Interview: Construct Coverage

Child Characteristics

Background information about study children was collected in the ECLS-K:2011 starting in fall 2010. Because of this, the child's sex and date or birth/age are not collected again in spring 2015. However, data for the child's race and ethnicity will be collected if they are missing from previous rounds. In addition, the parent interview will ask more specific questions about the child's ethnic group if these data were not collected in spring third grade.

The spring fourth-grade parent interview includes questions about:

Child's race and ethnicity; and

Specific Hispanic, Asian, or Pacific Islander group the child is in, such as Puerto Rican, Chinese, Samoan, etc.

Parent's Involvement with the Child's Education

Parental involvement in education has been shown to have significant 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 managing their child's education by helping with homework, monitoring whether homework has been completed, and obtaining tutoring for a child, if he or she is having difficulties in school. Other ways that parents are involved with their children's education is in their interaction with teachers and through participation in organized school activities. Although studies have traditionally asked about ways that parents interact with teachers and school activities in person, many schools have increased parents' opportunities to communicate with teachers and schools online. One national study that followed students from 10th grade through postsecondary school (Education Longitudinal Study of 2002 (ELS)) included questions about whether parents used a computer to communicate with the school about several topics, such as the child's school performance, absences or tardies, and homework. The ECLS-K:2011 will build on this research by asking parents of fourth graders about these forms of parent involvement. In addition, in order to be

able to examine the relationship between parent involvement and how well parents believe children are doing in school, the ECLS-K:2011 will obtain parent reports of children's grades.

The following data about parent involvement and school practices to involve parents in their children's education will be collected from the parents:

Parent attendance at parent-teacher conferences and meetings;

Parent participation in school activities;

Parent volunteering at the school;

Parents' use of a computer or other electronic device to communicate with or get information from the child's school;

Frequency that the parent or someone else helps the child with homework;

Frequency the child does homework at home;

How often parent or someone else checked that the child completed homework; and

Parent report of the child's grades.

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 summarize 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." Of these, 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 voidance) 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.

In the spring of fourth grade, the ECLS-K:2011 parent interview will include a measure of emotional engagement. The TRP recommended asking parents to report school avoidance, arguing that parents are better able to report on school avoidance than school liking. Items are taken from the Parent Report of School Liking and Avoidance Questionnaire (P-SLAQ; Ladd et al. 2000) and ask about the following:

The child's school avoidance.

Family Structure

Family structure affects the economic, social, and psychological resources available to the family for child rearing purposes. In 2010, 31.6% of families headed by a single mother were in poverty, compared to 6.2% of families with married parents (National Poverty Center n.d.). Research indicates that a wide range of outcomes for children under 18, including academic performance, mental health, behavior, and relationships with parents and peers are more optimal in families composed of two biological parents who interact with minimal conflict than for children who do not live with both biological parents (Dawson 1991; McLanahan and Sandefur 1994; Peterson and Zill 1986; Morrison and Cherlin 1992). Also, having the additional support of another adult appears to be beneficial to children without a second biological parent in their household. Dunifon and Kowaleski-Jones (2007) found that the presence of a residential grandmother in single-mother homes was associated with greater cognitive stimulation and higher reading scores, although this association was only found for White children.

Effects of family structure are not static. Structural conditions need to be looked at over time, because family turbulence—changing schools, residence, family composition, or even early care and education arrangements—can have a negative influence on children's outcomes (Haurin 1992; Peterson and Zill 1986; Howes and Stewart 1987). However, there is recent evidence suggesting that after accounting for other parental factors, remarriage after divorce may have benefits for children's academic achievement (Shaff, Wolfinger, Kowaleski-Jones, and Smith 2008). The

longitudinal nature of the ECLS-K:2011 makes it ideal for investigating the impact of change in family composition over the course of children's elementary school years.

The ECLS-K:2011 will gather data on the following aspects of family structure:

Current household roster;

Change in family relationship of key parent figures to the child (e.g., became adopted);

Marital status of the primary caretakers;

Information about why people who were in the household in a previous round of collection have left the household;

Tenure at current address (based on how many data collection points the child has the same address); and

Family structure change and loss (e.g., remarriage, divorce, and death).

Parent Characteristics

Basic parental demographic information will include:

Parent's sex, age, and race/ethnicity (if not collected in a prior round);

Parent's health; and

Parent's vital status (collected indirectly 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).

Immigration Status

Differences have been found in cultural ideals among immigrant groups regarding child-rearing beliefs, the meaning and importance of cognitive ability, and educational objectives in the early grades (Okagaki and Sternberg 1993). To address issues regarding immigration status, the ECLS-K:2011 has gathered information about both parents' and children's country of origin in previous rounds of the study. The study will gather the following information for focal children in the fourth grade if it has not already been collected in a prior interview:

Country of origin for sample child;

Length of residence in U.S. for sample child; and

Citizenship of the child.

Home Environment, Activities, and Cognitive Stimulation

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

Many parent-child activities have been linked to children's achievement in school, for example with respect to literacy. In the ECLS-K, children's literacy was 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 in the ECLS-K have been 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 themselves has also been related to reading achievement (Mullis, Campbell, and Farstrup 1993). The ECLS-K:2011 focuses on different aspects of the home environment in different years of the study. In spring fourth grade, the home environment will be measured by asking parents about home activities (e.g., reading, telling stories, doing arts and crafts).

Having access to a computer in the home is another valuable resource for children. Based on data from the ECLS-K, 53 percent of kindergartners in the kindergarten class of 1998-99 had a computer at home that they could use and by the third grade 81 percent of them had access to a computer at home. Espinosa et al. (2006) looked at how many children had and used computers at home, in addition to the number of books in the home and the amount of television the children watched. By the third grade, most children had a computer at home, and most of the computers were connected to the Internet. However, children whose parents had a higher education and income level had more access to computers and the Internet, and more books at home, than children whose parents had a lower education level and

income. Among those with the lowest socioeconomic status (SES), 46 percent of children used a computer at home. Among those with the highest SES, 96 percent used a computer at home. Also, having a computer available at home and having more books in the home were related to how well children did on the ECLS-K reading and mathematics assessments. The ECLS-K:2011 data will be an important source of information about how children's environments – especially with regard to computer access and use – have changed since the ECLS-K was fielded. Because computers are now available in many different forms, including various handheld devices such as cell phones and tablets, questions about computer use in the ECLS-K:2011 have been modified to allow for home computers and other electronic devices. As in previous rounds, in spring fourth grade, the study will continue to ask about how many hours a day children play games on computer devices.

In spring fourth grade, questions about parent monitoring of children's time online and what children look at online will also be included. A recent study found that 70 percent of adults with children under 18 monitored their children's time online when they were on social networking sites, and that those who did not monitor their children's time online did so because they trusted their children or thought that monitoring would indicate that they did not trust their children (University of Southern California Annenberg School Center for the Digital Future 2013). In the ECLS-K:2011, it will be of interest to examine how parent monitoring of children's computer use is related to other aspects of the home environment, parenting practices, and children's outcomes.

In addition to questions about children's learning activities in the home, the ECLS-K:2011 will continue to ask questions about activities children engage in outside of home and the classroom. Research using ECLS-K data has found a relationship between extracurricular activities and children's achievement (e.g., Dumais 2006). In addition to asking about the extracurricular activities that were included in the ECLS-K, the ECLS-K:2011 will ask about academic activities in which children specifically learn about math, science, or technology. Improving teaching and student learning in science, technology, engineering, and math (STEM) and creating access to STEM education for groups that have been underrepresented in STEM occupations are currently part of the initiatives of the United States Department of Education. (U.S. Department of Education, n.d.). In addition, the Afterschool Alliance, National AfterSchool Association (NAA), and National Summer Learning Association (NSLA) are involved in an effort to encourage STEM learning during the

out-of-school hours (Afterschool Alliance, National AfterSchool Association (NAA), and National Summer Learning Association (NSLA) n.d.).

The spring fourth-grade ECLS-K:2011 parent interview, like the spring third-grade interview, will also ask about the hours of sleep children generally get on a school night. Sleep has been related to many different children's outcomes including achievement (Eide and Showalter 2012), depression (Smaldone, Honig, and Byrne 2007), and body mass index (BMI) (Snell, Adam, and Duncan 2007).

The following information collected in the ECLS-K:2011 parent interview will address research questions concerning how the home environment influences children's cognitive and social development:

Home activities;

Frequency of reading by the child;

Use of a home computer or other electronic device to teach the child something such as reading or math skills;

Parent monitoring of the numbers of hours the child may spend online and what the child looks at online;

Tutoring;

Child's activities outside of school hours (including new items about academic activities related to STEM and science-related field trips taken with organized clubs or as part of academic activities outside of school hours); and

Number of hours of sleep child gets on school nights.

Neighborhood

Another influential aspect of children's environment is their neighborhood. Using ECLS-K data, Aikens and Barbarin (2008) found that negative neighborhood conditions were related to lower growth in literacy and reading ability from kindergarten through the third grade. Other research using ECLS-K data found that parents' perceived neighborhood safety was related to children's weight status (Gable, Chang, and Krull 2007) and physical activity (Beets and Foley 2008).

The ECLS-K:2011 spring fourth-grade parent interview data will allow researchers to examine how parents' perceptions of neighborhood safety are related to outcomes for children:

Neighborhood safety.

Children's Friendships

Research on children's friendships has shown that having friends is related to positive outcomes for children, such as engaging in prosocial behavior, little or no peer victimization, and high self-esteem (Bagwell, Newcomb, and Bukowski 1998; Hartup and Stevens 1996; Wojslawowicz Bowker et al. 2006), while not having friends has been related to negative outcomes, such as behavior problems, peer victimization, poor social skills, and loneliness (Clark and Drewry 1985; Hodges et al. 1999; Parker and Asher 1993; Wojslawowicz Bowker et al. 2006). One study by Wojslawowicz Bowker et al. (2006) found that having a best friend in the fifth grade was linked to being viewed by peers as more socially skilled and prosocial than children without a best friend. Fifth-grade children who gained a best friend between the two time points in the study were viewed more positively relative to other children in their grade and were less victimized than children who lost a best friend during the school year or those who did not have a best friend at either time point. Thus, having a best friend appeared to act as a protective factor.

Although having a best friend may act as a protective factor for many children, some best friends may engage in behavior that has a negative influence on children. For example, Ingoldsby et al. (2006) found that, along with parent-child conflict, having an antisocial best friend was related to children's antisocial behavior in middle childhood. Thus, having some information about the child's best friend may be useful in assessing whether the relationship is positive for the child.

The ECLS-K:2011 will examine two aspects of children's peer relations:

The number of close friends the child has; and

Parent opinions on whether the child's best friend is a good influence on the child.

Parent's Psychological Well-Being and Health

Current maternal depression is related to mothers' reports of children's externalizing problems (Moore et al. 2006), internalizing problems, and children's own report of depressive symptoms (Tompson, Pierre, Boger, McKowen, Chan, and Freed 2010). Parents who are depressed or highly stressed are less likely to provide emotional support and more likely to employ harsh disciplinary practices (Puckering 1989; Moore, Zaslow, Miller, and Magenheim 1995). In the spring of kindergarten, findings from 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).

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

Depression and subjective well-being;

Overall life stress; and

Respondent's general health status.

Food Sufficiency and Food Consumption

Adequate nutrition is critical for children's growth and development. 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). The food sufficiency and food consumption items in the ECLS-K:2011 are from a well-established measure used by the USDA to describe the level of food security or insecurity in the household. In order to reduce respondent burden, a shorter 10-item version of this measure suggested by USDA will be used to measure adult food security (which can be used to predict child food security) in the spring fourth-grade round.

The items ask about:

Ability to purchase food sufficient for family needs; and

Frequency that adults in the household do not have sufficient food.

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). 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) and engaging in high quality home literacy experiences (Roberts, Jurgens, and Burchinal 2005; Storch and Whitehurst 2001). Research has suggested that this interaction between a parent and child, especially the amount the parent speaks to an infant or small child, dramatically affects the child's vocabulary development (Huttenlocher, Haight, Bryk, Seltzer, and Lyons 1991). Lower parent education has also been related to children's externalizing problems and maternal depression (Moore et al. 2006).

Educational attainment data will be collected for the child's parents if it is missing in a previous round for that parent figure. The following data will be collected in spring fourth grade:

Diplomas or degrees parent has obtained

Working Memory

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). Given the increased interest in executive

function, in the parent interview we have included items tapping one aspect of executive function:

Children's working memory

Child Care

School-aged children are in a variety of nonparental care arrangements when they are not in school, including center-based before- and after school programs, care with related or unrelated persons, and self-care. Although some studies have not shown negative effects of self-care, particularly among some groups of children, (Sarampote, Bassett, and Winsler 2004), Pettit et al. (1997) found that higher amounts of self-care was related to children's adjustment problems, especially for children of lower socioeconomic status, those with behavior problems at school entry in kindergarten, and those who were not in other activities supervised by adults.

The ECLS-K:2011 fourth-grade parent interview will allow for an examination of how children's characteristics and outcomes are related to the following:

Whether the child regularly takes care of him or herself; and

Time the child spends in self-care.

Parental Discipline and Emotional Supportiveness

Warm, accepting maternal behaviors and relationships are positively linked to children's intellectual and emotional development. Greater warmth and support predict more positive child outcomes, regardless of income level (Moore, Zaslow, Miller, and Magenheim 1995; Gregory and Rimm-Kaufman 2008). One way that parents can be warm and emotionally supportive to children is through communication. The ECLS-K:2011 spring fourth-grade interview will assess parental emotional support by asking parents to report on whether they listen to their children and encourage them to communicate. Hamilton, Cheng, and Powell (2007) examined the ECLS-K parent-child communication questions for parents of children in kindergarten and first grade and looked at variations by adoptive and other parents. They found that that parents' communication with their children did not vary by family structure and hypothesized that this type of interaction with children may be seen as a positive investment in children by many parents.

The ways in which parents discipline and interact with their children have also been related to behavior outcomes. Parents' use of inconsistent discipline has been associated with children's Attention-Deficit/Hyperactivity Disorder (Ellis and Nigg 2009), and found to be a mediator between mother's distress and children's aggression (Barry et al. 2009). Parent-child conflict has also been found to be a strong predictor of children's aggressive behavior (e.g., Patterson, Reid, and Dishion 1992; Ingoldsby et al. 2006). For example, Ingoldsby et al. (2006) found that parent-child conflict and having an antisocial best friend in the neighborhood were related to children's antisocial behavior at age 10. The ECLS-K:2011 has included several measures of parenting, but until the spring fourth grade has not included a measure of parent-child conflict.

The ECLS-K:2011 fourth-grade parent interview will collect information about the following topics:

Parent-child communication;

Consistency of discipline; and

Parent-child conflict.

Experts have suggested numerous factors to explain the increased obesity rate among children such as dietary habits, trends in eating out, sedentary activities, and changes in school lunch programs. However, data linking these factors to the recent trends in obesity are needed before policy can direct effective change. Parent interview data from the ECLS-K:2011 about the amount of exercise children get, meals eaten at home, hours spent in sedentary activities such as watching television and playing video games, child behavior, and other measures can be used together to examine factors related to obesity. In spring fourth grade, the parent interview will focus on the following topic related to the issue of sedentary behaviors:

Amount of time the child plays video games.

Involvement of the 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 in the spring fourth-grade round:

> 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

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 an important 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, and health care utilization (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% of children who are 6 to 19 years old have hearing loss related to noise (e.g., noise that may come from 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 (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 1997).

Impairments in vision can also lead to learning and socio-emotional 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).

The ECLS-K:2011 will collect the following data related to children's current and retrospective health status:

- Overall health;
- Ear infections since second grade;
- Ear aches since second grade;
- Asthma;
- Diagnoses of disabilities and health conditions;
- Vision and hearing problems;
- Exercise/physical activities;
- Services for disabilities;
- Glasses, hearing aids, cochlear implants;
- Prescription medications;
- Behavioral and attention problems;
- Learning problems;
- Emotional or psychological difficulties; and
- Communication problems.

Parent Employment

Parental employment status affects the amount of material resources available to the child (Jackson, Bentler, and Franke 2006). 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).

One type of employment that has not been examined specifically in the ECLS-K:2011 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. Information will be collected about the following:

   Parents' current employment status; and

   Parents' active duty status in the military since the child was born and
      currently.

Welfare and Other Public Transfers

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, Moore, Smith, Stief, and Coiro 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 families demonstrate poorer outcomes across a variety of domains, compared to more advantaged children (Moore, Zaslow, Coiro, and Morrison 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.

One question to be considered is how the pattern of welfare receipt over time affects children's adjustment to and progress through school. For many children, poverty is not a persistent fact of life but a temporary event (Duncan 1991). In analyzing patterns of poverty among children under 4 for the subsequent 15 years,

Duncan and Rodgers (1988) found that black children lived in poverty for an average of 5.5 years, while non-black children lived in poverty for an average of 0.9 years. The duration of poverty has been found to have a powerful effect on both cognitive development and behavior among children (Duncan, Brooks-Gunn, and Klebanov 1994).

Parents will be asked to provide information on the following:

Receipt of Temporary Assistance to Needy Families (TANF)

Receipt of Food Stamps, also called SNAP (the Supplemental Nutrition Assistance Program), or food benefits on EBT (Electronic Benefit Transfer); and

Participation in the Federal School Lunch or Breakfast Program.

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. Youngsters 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). Because income is a dynamic force rather than a stable background characteristic (Duncan 1991) it is being measured longitudinally in the parent interviews in the ECLS-K:2011.

The spring fourth-grade parent interview will also include questions about the following:

Total family income for the year; and

Housing (whether home is owned, rented, or housing is obtained in other ways, such as by exchanging services for housing, living in temporary housing, living with a relative, etc.)

C.3   School Administrator Questionnaire

The ECLS-K:2011 will collect data in spring 2015 on school composition, policies, and practices from school administrators in schools attended by ECLS-K:2011 sampled children. School component data will be used to illuminate the school context of each ECLS-K:2011 child and investigate the influence of school and administrator attributes on student outcomes. The School Administrator Questionnaires are contained in Appendix F. The instrument is very similar to the administrator questionnaires administered in the kindergarten, first, second, and third-grade spring data collections. The questionnaire has been shortened somewhat compared to the analogous questionnaires used in previous rounds of this study; this was done in order to reduce respondent burden and increase response rates. Omitted items were from the following constructs: facilities and resources, specialized language instruction for English language learners, Title I and Title III services, and school changes related to the school's Adequate Yearly Progress (AYP). We expanded the questionnaire items on parent involvement to include electronic and non-electronic methods the school uses to communicate with and provide information to parents. In addition, we added a set of items about implementation of the Common Core State Standards in the school, if applicable.

The ECLS-K:2011 fourth-grade administrator questionnaire has two versions: one for schools without a completed administrator questionnaire in any prior round of data collection and a more streamlined version for schools with a completed questionnaire in a prior round. The items included in the instrument are described in more detail below.

C.3.1   School Administrator Questionnaire: Research Questions

SAQ1: How does the length of the school day and school year relate to children's progress, especially with respect to cognitive gains?

SAQ2: How do differences in schools' basic demographic, enrollment, resource, policy, and organizational characteristics relate to children's academic and social development in the early elementary school years?

SAQ3: Are schools' practices to involve parents associated with higher levels of parent involvement? Are the amount and methods of school communication with parents associated with higher levels of parent involvement?

SAQ4: 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?

SAQ5: How do schools respond to the needs of parents with little or no English proficiency?

SAQ6: How do neighborhood or community differences relate to children's cognitive and social development?

SAQ7: 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?

SAQ8: What are the characteristics of elementary school administrators and how do differences in their background characteristics relate to school characteristics, school practices, and interaction with parents and students?

SAQ9: To what extent do schools 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?

SAQ10: To what extent is a school's implementation of the Common Core State Standards in English reading and language arts and/or mathematics associated with changes in teacher practices? Is such implementation associated with children's academic outcomes?

C.3.2 School Administrator Questionnaire: Construct Coverage

The ECLS-K:2011 will collect data in spring 2015 on school characteristics, school-family-community connections, school policies and practices, school programs for particular students, Federal programs, staffing and teacher characteristics, and school administrator characteristics from head administrators in schools attended by ECLS-K:2011 sampled children. The school component data will be used to illuminate the school context of ECLS-K:2011 children and investigate the influence of school and administrator attributes on student outcomes.

School Characteristics, Including School Policies, Practices, and Federal Programs

Several characteristics of 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. 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, Ready and Lee (2007) found that the size of elementary schools, as well as the size of classes within schools, independently influenced children's learning in literacy and mathematics in both kindergarten and first grade. Farbman (2010) found that schools that had an expanded school year (that is, schools in which children attended more class days and/or hours per day) had students with higher achievement than schools for which the school year had fewer class days or hours per day.

The type of school attended has implications for students' experiences 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 received the most research attention (e.g., Bryk, Lee, and Holland 1993). Catholic schools tend to have low absenteeism rates and high academic achievement, despite a high level of heterogeneity in the student body. The ECLS-K:2011 data will provide opportunities to contribute to the literature on the 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.

While states have differed in their curriculum goals and standards in past years, there is a national effort to bring them more closely together. In 2009, a state-led effort to develop the Common Core State Standards was launched by state leaders, including governors and state commissioners of education from 48 states, two territories and the District of Columbia, through their membership in the National

Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO).[17]

Administrators will be asked if their school has implemented the Common Core State Standards, and , if so, when the standards were implemented and in which grades the implementation has occurred.

The composition of the student body can affect the types of programs and services that schools offer. The diversity of student populations with respect to social and economic background, preparation for school, need for particular services, and levels of proficiency in English can present instructional challenges for schools. Data collected in the ECLS-K:2011 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 for 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 stated that a school's poverty concentration and number of children with reading deficits in the school was negatively related to individuals' reading outcomes. Like the ECLS-K, the ECLS-K:2011 will be ideally suited for studies that look at academic growth related to school characteristics.

Some schools and school districts favor the use of retention in certain circumstances, while others have a "no retention" policy. Research published between 1900 and the 1980s indicated mixed results regarding the effectiveness of grade retention on children's academic performance and socioemotional development (Jimerson, 2001). With increased policy emphasis on accountability and improving student performance in the past 20 years, some school systems have moved away from social promotion policies, instituting promotional requirements based instead on standardized test scores (for example, as has been the case with Chicago Public Schools (Roderick and Nagaoka, 2005)). However, studies and meta-analyses have continued to show mixed results of retention in elementary grades

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[17] As described in http://www.corestandards.org/about-the-standards/development-process/ as of May 22, 2014.

(Jimerson et al., 1997; Jimerson, 2001; Roderick and Nagaoka, 2005; and Holmes and Matthews, 1984). To the extent that a pattern has emerged, it is that children who are retained show some achievement gains relative to comparison groups in the year during which they are retained, but those gains disappear in subsequent years. Further, children who are retained tend to show poorer social development relative to comparison groups. Data collected by ECLS-K:2011 on retention in each grade from kindergarten through fourth will assist researchers who are continuing to address this question. The ECLS-K:2011 will collect data on the number of children who were retained in second, third, and fourth grades. Further, data collected on individual children will include whether and in which grade(s) a child in the study is retained.

The success (or lack thereof) that the school has had in meeting the goals of NCLB, such as increasing overall student achievement and reducing the achievement gaps between subgroups of students, may have lasting effects on the school, its enrollment, the services it offers, and potentially on its governance. In particular, schools that have not met their NCLB goals (known as AYP, or adequate yearly progress), may have planned and implemented a number of specific school improvement activities.

In addition to each of the aspects of the school context mentioned in the paragraphs above, other context information will be collected in order to better understand the educational processes occurring in the school. For example, sources of funding (in particular, Title I and Title III program funds) help define the resources available to serve the school's student. Overcrowding in schools can be a serious problem, as can inadequate facilities and low levels of funding.

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 larger, more diverse middle and high schools.

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.);

Number of instructional days in the school year;

Enrollment and attendance;

Student demographics: racial/ethnic composition of the student population, language minority students in the student population, enrollment from outside the school's attendance zone, participation in special education;

Percentage of children eligible for free or reduced-price meals;

Numbers of students retained in focal grades;

Implementation of the Common Core State Standards by the school;

Receipt of Title I and Title III funding; and

School status relative to Adequate Yearly Progress (AYP).

Response to Intervention Programs

Response to Intervention (RtI) is intended to support improved academic achievement for all students. It offers a model for early intervention to prevent failure by identifying students who are struggling in the classroom with the general curriculum. A hallmark of RtI is an integrated system of assessment and monitoring at every stage of the process (Burns and Ysseldyke 2005, Coleman et al. 2006). All students are periodically compared to their classmates, using pre-determined benchmarks or local or national norms. Students determined to be at risk in the area of assessment (e.g., reading, mathematics, behavior) receive a targeted, evidence-based intervention and the student's progress is monitored. If the student improves, the student returns to general classroom instruction. Frequent monitoring occurs to ensure that progress is maintained following the intervention. If the student does not improve, the student may receive a more intensive intervention. Thus, the approach calls for dynamic assessment that allows practitioners to respond to children's needs (Fuchs and Fuchs 2006). Placement in different levels or "tiers" of services is data-driven.

Items related to RtI practices are being included in the School Administrator Questionnaire to obtain information at a national level to better understand the extent to which schools across the country are implementing identified RtI programs or are using practices that would be identified as RtI practices, even if the school has not formally adopted an RtI program.

The policy and practice topics covered in the School Administrator Questionnaire include:

Implementation of an RtI approach at the school;

Number of years RtI has been used at the school;

Areas in which RtI is implemented, i.e., reading, mathematics, writing, and behavior;

Implementation of various RtI-type features at the school (e.g., learning goals, benchmarks);

Communication with parents about RtI;

Presence of staff members to train and assist teachers with reading and mathematics instruction, delivery of behavioral supports, and use of assessment data; and

Number of students evaluated and eligible for an IEP (using an RtI model or other model).

School-Family-Community Connections

Parent-school communication may have a number of 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. Strong relationships between schools and parents are associated with positive outcomes for children (Hoover-Dempsey and Sandler 1997; Gonzalez-DeHass, Willems, and Holbein 2005).

With the ever-increasing availability of computers, tablets, and phones with internet connectivity, many schools have chosen to communicate with parents using

electronic means (such as email, electronic newsletters, websites, robocalls (mass automated phone calls). The SAQ for the fourth-grade data collection round contains newly developed and cognitively tested items about how often the school uses electronic and non-electronic means to communicate with all parents.

The community characteristics items in the school questionnaire focus on school and neighborhood safety and on measures the school has taken to ensure school safety. The neighborhood questions in the School Administrator Questionnaire ask about the neighborhood in which the school is located. The data collected in these questionnaires can be combined with Census data that characterize the neighborhood in other ways (by racial composition, crime, income, employment, etc.).

The ECLS-K:2011 collects information on the following topics to gauge school-family-community connections:

> School-based programs or services for parents and families;
>
> Parents' school involvement:
>
> School use of electronic and non-electronic means to communicate with parents, including use of open-access and restricted-access websites or other online tools for parents' use;
>
> Neighborhood problems (racial tensions, gangs, and crime);
>
> School safety;
>
> Measures taken to ensure school safety; and
>
> Recent changes at the school including funding, enrollment, demographics, and class sizes.

School Programs for Particular Populations

Because the ECLS-K:2011 will provide longitudinal data on a nationally representative sample of children, including children with special educational needs, information will be needed on special programs in which children in the study may participate. Because programs serving particular 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 specific staff (e.g., outreach workers, translators, and parent liaisons), parenting education, and other efforts to involve parents in support of their children's success in school are among the topics included. Items on these topics will provide data that can be used to investigate how schools can best serve parents of children with special needs.

Data from the ECLS-K were used to examine the association between the school resources for ELL children and ELL children's academic growth from kindergarten through fifth grade (Han and Bridglall 2009). The authors found that the initial gap in math scores between ELL children and their *English*-speaking peers narrowed by fifth grade. This was especially true for ELL children in schools with either a high or low ELL student concentration. The ECLS-K:2011 direct assessments are specially designed to directly assess ELL children's early English reading abilities, which was not possible in the ECLS-K. This feature will allow for a more thorough understanding of how services for these children relate to their reading growth, regardless of their initial English proficiency. The proportion of ELL children in the third grade and the total school, the number of children receiving bilingual education or ELL/ESL services, the types of programs in which those children participate, and the services provided to language minority (LM) families will be collected in the School Administrator Questionnaire.

Because baseline data were collected during the kindergarten year, a point when many children with disabilities have not yet been identified by schools, ECLS-K:2011 can help to shed light on how children come to be classified as having a particular disability over time. 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 ECLS-K:2011. 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:2011 data on special education placement and practices will provide information about the range and effectiveness of different methods for providing special education.

Another program that many elementary schools offer to meet the needs of their students is specialized instruction for students identified as "gifted and/or talented." Adelson, McCoach, and Gavin (2012) analyzed ECLS-K data from grades 3 and 5 and

found that gifted programming in mathematics and reading (overall) had no effect on gifted students' achievement and academic attitudes, and did not have detrimental effects on students not participating in these programs. Considered in light of prior research indicating benefits of specific gifted programs and the wide variety of program characteristics represented across the nation, the authors urged additional study to determine effective gifted program characteristics.

The ECLS-K:2011 data on special populations include:

Delivery of instruction to English Language Learners (ELLs) and services for language minority (LM) families;

Delivery of special education and related services to children with disabilities; and

Programs for gifted and talented children.

Staffing and Teacher Characteristics

The ECLS-K:2011 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 collected in the teacher-level questionnaire):

Total number of full- and part-time teachers, guidance counselors, specialists, nurses, and paraprofessionals;

Availability of specialists to support teachers in implementing reading, mathematics, and behavioral programs;

Teacher mobility; and

Monetary incentives for teachers.

Administrator Characteristics

School administrators 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 administrators also have additional teaching or administrative duties. How administrators 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 addresses the influence of variations in administrators' characteristics, qualifications, and time use on student outcomes. The following information collected in the ECLS-K:2011 might help to explore the relationships between characteristics of school administrators and the outcomes for students in their schools.

Administrator's sex, age, and race/ethnicity;

Administrator's years at the study school;

Administrator's years in the role of principal;

Administrator's formal education and training;

Administrator's use of a non-English language; and

Administrator's familiarity with students.

C.4   General Classroom Teacher Questionnaires

The ECLS-K:2011 will collect information from the teachers of the sampled children. The primary purpose of these data is to help describe children's classroom experiences which may relate to their social and academic development.

In addition, reading, mathematics, and science teachers will be asked to provide information on the study participants who are in their classes, as well as on some of the characteristics of and the instructional practices they use in the study children's classes. The ECLS-K:2011 assessment battery provides an objective assessment of academic outcomes for the nationally representative sample of study children. Teachers can provide another perspective, albeit a less objective perspective, on children's abilities and behavior because they spend a great deal more time with the children under far more routine conditions as compared to the ECLS-K:2011 assessors. While the ECLS-K:2011 assessment provides a snap-shot of what the child knows at the time of assessment, the teacher can provide a more complete overview of what the child knows based on experiences with the child in the classroom over the course of almost a full school year.

Because the ECLS-K:2011 collects a very broad range of information longitudinally, it is well-suited to study the relative influence of particular educational and school characteristics on important outcomes, particularly in comparison to the relative influence of family background on those outcomes.

There are two types of questionnaires that each teacher will complete, a teacher-level questionnaire (TQ) and a subject-specific child-level questionnaire (TQC). The TQ asks about time allocated to various subjects and activities, evaluation methods, attitudes about school climate, educational background, and teacher experience.

The TQC has a reading, mathematics, and science version. These questionnaires are separate for fourth grade because many schools begin in this grade the practice of having separate teachers for each of these three subjects. Each child will have two subject teachers complete a TQC: all study children will have a reading teacher complete the reading questionnaire for that child. Each child will also have *either* a mathematics or science TQC completed by their mathematics or science teacher.

Each version of the subject-specific TQC contains two sections: the first section (Part 1) is at the child-level and will be completed for each study child. Part 2 of the TQC is at the classroom-level and will be completed only for the classes attended by "key children" (one child selected randomly from the teacher's class and section). For example, if a teacher has three study children in one class, she will complete Part 1 for each of the three children (i.e., three times) and then complete Part 2 only once, for the key child.

In general, the questions in TQC-Part 1(child-level section) of the questionnaire are similar across the three versions of the TQC, although they are specific to the subject (for example, questions about special instruction in the subject area, ratings of academic skills and ability in the subject area, and placement in subject-specific instructional groups). Because the reading questionnaire will be completed for every child, it contains additional questions that are not included in the mathematics and science questionnaires (for example, ratings of the specific child's social skills, school engagement, classroom behaviors, and peer relationships).

The TQC-Part 2 includes classroom-specific questions that focus on concepts and skills delineated by the "Common Core State Standards" in the case of the reading and mathematics questionnaires. The items in the science questionnaire rely on the "Next Generation Science Standards." These two sets of standards are nationally

recognized and have been developed collaboratively by state departments of education. For fourth grade, we have added items about the types of instructional activities that teachers use in each of the three subject areas; these are similar to those used in the ECLS-K and in the kindergarten year of the ECLS-K:2011. Part 2 also contains broader questions on instruction and grading practices, behavioral issues, and homework assignments in the key child's classroom. The questions in this classroom-level section of the questionnaire will be answered only for the key child's class in the relevant subject.

C.4.1 Spring Fourth-Grade Teacher Questionnaires

C.4.1.1 Spring Fourth-Grade Teacher Questionnaires: Research Questions

TQ1: How do instructional practices, content coverage, classroom resources, and methods of providing feedback differ across classrooms or schools? What is the relationship of those differences to children's academic and social development?

TQ2: How does diversity in the classroom regarding age, sex, number of fourth-grade repeaters, and level of parent involvement relate to other classroom characteristics? How do these class-level characteristics interact with children's own characteristics for the development of academic and social skills?

TQ3: How do teachers and schools handle the diversity of children's skills? How are children with special needs (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?

TQ4: Do teachers' characteristics including sociodemographic characteristics, views on their sense of efficacy, job satisfaction, perceptions of school climate, their educational background, certifications, and teaching experience influence children's outcomes, on average and in interaction with children's sociodemographic backgrounds?

TQTQ5: What academic skills, socioemotional skills, and behaviors do teachers report children having as they progress through school? Do these skills and behaviors vary by family background characteristics? How do these skills and behaviors change over time?

TQTQ6: To what extent do teachers and other school staff use assessments to monitor students' progress on specific skills and identify those students 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?

TQ8TQ7: How do the skills taught to and instructional activities used with children in specific subject-matter areas differ across classrooms and schools? How do those differences relate to children's academic and social development?

C.4.1.2 Spring Fourth-Grade Teacher-level Questionnaire, TQ: Construct Coverage

Student, School, and Staff Activities

The existing body of research is somewhat mixed on the issue of the best ways for children to spend their time during the school day – that is, how the day should be divided between instruction and structured activities, less structured activities, and free play and physical activity. Several studies in day care settings suggest that large amounts of free play and unstructured time are negatively related to preschool-age children's cognitive and language development (McCartney 1984; Ruopp, Travers, Glantz, and Goelen 1979). At elementary school ages, a large number of school-based studies have emphasized the importance of "time on task" or "student engagement" for student achievement in first and second grades (Greenwood 1991; Greenwood, Arreaga-Mayer, and Carta 1994; Wang, Haertel, and Walberg 1990). Children in second through fifth grades achieve more (as measured by achievement tests) in classrooms where a higher proportion of time is spent in academic instruction, where the teacher maintains both discipline and academic focus, and where they are engaged in their work with few interruptions or few periods of unoccupied time (Crocker and Brooker 1986).

Child development experts have noted that elementary school children today have less time to engage in physical education, physical activity, and free play than in years past because many schools have reduced physical education classes and recess time in favor of more instructional time and that this trend may have unintended negative academic consequences at least through first grade (e.g., Pelligrini and Bohn 2005) and physical consequences at least through third grade (Datar and Strum 2004). Datar and Strum showed that physical education programs helped girls who were overweight, or at risk for becoming overweight, avoid becoming obese. It further showed that the resulting reduction in weight for these girls by third grade led to improvements in reading and mathematics achievement, approaches to learning, self-control, and interpersonal skills. In a study across ten years of a classroom-based physical activity program in kindergarten through fifth grades, (Kibbe et al. 2011) found that this integrated physical education program

led to higher physical activity levels, reduced time off task during instructional time, and improved reading, mathematics, and spelling composite scores.

While it is not possible to directly measure the actual "time on task" spent by children in this study or their level of engagement in the instruction, nor to observe the level of disciplinary control the teachers exert, the questionnaires include some proxy measures for these constructs as well as information about the amount of time children spend in free play. For example, teachers are asked estimate the amount of time spent on instruction in various subjects and the amount of time spent in physical education and recess.

Formal student evaluations include grades, progress reports to parents, portfolios, and report cards. Research in this area often focuses on teachers' criteria for grading, the frequency of feedback, and whether constructive information about areas of strengths and weaknesses 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.

Research emphasizes the importance of parental involvement in children's education in explaining differences in student educational outcomes (Schneider and Coleman 1993; Hoover-Dempsey and Sandler 1997; Gonzalez-DeHass, Willems, and Holbein 2005).

The TQ includes items that characterize the organization of the school day, how children's time is spent in both academic and nonacademic activities, aspects of teachers' evaluations of their students, and parent involvement.

Use of class time, by subject area, physical education, arts, and recess;

Factors in assessing children's progress;

Parent involvement in school activities across the grade level (volunteering, attending meetings, other activities); and

Teachers' professional development activities (including aspects of Response to Intervention).

Teachers' Views on Teaching, School Climate, and School Environment

Teachers' satisfaction with the amount of autonomy afforded to them and the amount they feel supported has a strong effect on teachers' 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:2011, teachers' autonomy, input into school policies, and sense of efficacy will be measured. These data can then be used to address questions having to do with how these factors relate to teaching practices and ultimately to child outcomes. To reduce burden there are fewer questions on efficacy and satisfaction in fourth grade than in previous grades. The following topics are asked about in the TQ;

School climate;

Job satisfaction; and

Teachers' sense of efficacy.

Teacher Background

Teacher demographic variables are mainly of interest in the ECLS-K:2011 in the context of fit with children's backgrounds. Teacher race/ethnicity and sex may interact with student background variables to produce interesting results on student achievement.

The differences in student outcomes that are found in relation to such typically-researched characteristics of teacher quality as highest degree earned and major field of study are at best weakly related to student cognitive outcomes (Hedges, Laine, and Greenwald 1994). A teacher's years of teaching experience is generally considered by the education community to be an important influence on student outcomes, but there is some research that suggests teacher experience has only a weak relationship with student test scores (Hedges, Laine, and Greenwald 1994). Nonetheless, these indicators continue to be used as bases for salary differences and hiring decisions. Further, researchers and government agencies (for example, the "highly effective teacher" requirements under NCLB) continue to investigate these variables in attempts to isolate the factors that define teacher effectiveness.

The following demographic, training, and experience variables will be collected as part of the ECLS-K:2011:

Teacher's sex, age, and race/ethnicity;

Teaching experience, by school and grade;

Teacher's education, including degrees and courses addressing specific topics; and

Type of teaching certification held.

C.4.1.3 Spring Fourth-Grade Subject-Specific Child-level Questionnaires, TQC: Construct Coverage

TQC Part 1 Child-Level Questions: 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 will also rate the ECLS-K:2011 children in their classroom on:
- social skills (including their ability to exercise self-control, interact with others, resolve conflict, and participate in group activities);
- 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 inventiveness).

These social-emotional behaviors have been incorporated into a wide variety of research done with the ECLS-K data. For example, 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.

Peer relationships are also an important predictor of children's later social-psychological adjustment (e.g., Parker & Asher, 1987). During middle childhood and early adolescence, as children begin to spend more time with peers, friends begin to play an increasingly greater role children's social and emotional development (Way and Greene, 2006). The types of behaviors that children within the peer group exhibit can influence the behavior of other members of the peer group. Different patterns of peer group behavior 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 long term consequences in adolescence and adulthood such as criminality, poor psychological health, and underachievement (e.g., Parker and Asher, 1987).

Involvement with delinquent peer groups has been shown to be a predictor of several problematic outcomes for adolescents, including substance use and antisocial behavior (Bullock, Deater-Deckard, and Leve, 2006). A recent study found that as adolescents reported increases in negative peer affiliations, there were corresponding increases in their problem behaviors, although a positive school climate lessened the impact (Wang and Dishion 2011).

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 & Kupersmidt 1983) and predicts later psychological health (e.g., Eisenberg, Faves, & Spinrad, 2006). In their review of research on peer pressure, Ryan et al., 2014, noted that, "although peer pressure is most frequently used in conversation with a negative connotation, not all peer pressure is negative. Peer pressure is a necessary and important part of development. It helps to socialize children, provide a sense of identity, and can encourage positive behaviors." In addition, Wentzel et al., 2004, found that a student's friends' prosocial behavior influenced the student's own prosocial behavior in eighth grade. (See also Cotterell, 2007.)

In the ECLS-K:2011 child-specific questions, teachers provide their perceptions about the degree to which certain descriptions are true of the friends with whom the

child spends the most time whether those friends "get into trouble," "must be closely supervised," " are kind," and "do well in school."

Teachers will also be asked about peer victimization. A report of school safety and crime included student reports of bullying, a construct closely related to peer victimization. The study found that about 28 percent of middle and high school students reported being bullied once or twice at school in the 2010-2011 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 2006-2007 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 the current White House anti-bullying initiative, having the ECLS-K:2011 collect information about peer victimization in this national sample of elementary school children is useful. Collecting teacher-report data in addition to child-report data allow for the examination of peer victimization in different contexts and reduces the effect of mono-method bias in measuring this construct.

As discussed in the parent interview 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 subject-specific child-level questionnaires for teachers will include a teacher-report measure of child school liking, with items similar to those asked in the spring fourth-grade parent interview.

Child-specific skills and behaviors covered in the subject-specific child-level questionnaires for teachers are:

Overall rating of academic skills in reading, writing, oral language, mathematics, science, and social studies; and the extent to which the child works to the best of his/her ability (contained within the TQC for the appropriate subject);

Social skills and classroom behavior rating scales (in the reading TQC only);

Relationships with peers, and the characteristics of peer group (in the reading TQC only);

Experiences with peer victimization (as a victim or an aggressor) (in the reading TQC only); and

Child behaviors relevant to school liking and avoidance.

TQC Part 1 Child-Level Questions: Enrollment Information and Placement in Instructional Groups

In addition to asking teachers to rate each student's overall reading, mathematics, science, and social studies knowledge and skills, the subject-specific child-level questionnaires also include questions related to basic student information such as the child's membership in the teacher's class and for which subjects, his/her attendance his/her relative placement in reading and mathematics instructional groups, and if those groups are formed on the basis of achievement (as opposed to having the students grouped heterogeneously). Compared with whole-class instruction, achievement grouping allows teachers to reduce heterogeneity and target instruction to match students' current level of knowledge and skills (Entwisle 1995; Karweit 1985; Lou et al. 1996; McCoach, O'Connell, and Levitt 2006; Slavin 1987). Children's 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) and Slavin (1987) found these relationships with respect to reading achievement groups. 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).

The teacher will provide child-specific information about the ECLS-K:2011 children's:

Length of time child has been enrolled in the classroom;

Number of school absences during the current school year; and

'Reading, math, or science group placement.

TQC Part 1 Child-Level Questions: Specific 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:2011 data on special education placement and practices will provide information about the range and effectiveness of various special services. In addition, schools that serve students who have limited proficiency in English (who are known as ELLs (English language learners)) may provide specialized language instruction for those children.

The topics in this section of the questionnaire include:

Child's status as an English language learner and any specialized language programs in which that child participates (programs that focus on developing students' literacy in two languages or programs that focus on developing students' literacy solely in English) (in the reading TQC only);

Whether the child has an IEP or equivalent plan on record with the school, receipt of speech or language therapy, and receipt of services provided through a special education program (all in the reading TQC only);

How often reading, math, and science instruction is provided in the child's native language (if other than English);

Receipt of individual tutoring (in the reading and mathematics TQC only); and

Participation in a gifted and talented program (in the reading and mathematics TQC only).

TQC Part 1 Child-Level Questions: Child's Parent Involvement (Reading Questionnaire Only)

Parental involvement in children's education can have a significant 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 parents' 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 TQC for the reading teacher includes an item on:

The extent to which the specific study child's parents are involved in the child's school and education.

TQC Part 2 Classroom-Level Questions: Curricular Focus and Content Coverage for Reading, Mathematics, and Science Instruction

In addition to child-level questions, the reading, math, and science TQC also contain questions about the classroom characteristics of the selected study "key child" taught by the teacher (i.e., the classroom characteristics of the key child's class). To further reduce burden on teachers, if there is more than one study child in a class, only one of them, one "key child," will be identified for each subject and class. The key child will be identified by a red dot on the cover of the questionnaire. For each TQC a teacher completes, the teacher only needs to complete one classroom-level section (for the key child); for all other TQCs, she will only complete the child-level section of the TQC.

Questions in the classroom-level section of the TQC assess what skills and topics are taught in the areas of reading and language arts, mathematics, and science, and how extensively each skill is taught. These content coverage questions for reading and language arts and mathematics are modeled on the Common Core State Standards (corestandards.org). Content coverage for science focuses on skills and concepts recommended by the "Next Generation Science Standards" (nextgenscienceorg), endorsed by the National Science Teachers Association and the National Research Council and developed in conjunction with staff from 26 states.

To estimate the amount of time children may spend on academic subjects outside the school day, the teachers are asked about the frequency and amount of homework the teacher assigns in reading and language arts, mathematics, and science.

The following information about content coverage in three major curriculum areas will be collected as part of the ECLS-K:2011:

Time spent on specific skills and concepts in reading and language arts;

Frequency with which children engage in specific reading and language arts activities;

Time spent on specific skills and concepts in mathematics;

Frequency with which children engage in specific mathematics activities;

Time spent on specific skills and concepts in science; and

Frequency with which children engage in specific science activities;

Frequency and amount of homework assigned in reading and language arts, mathematics, and science; and

Time spent working independently, in small groups, and in large groups.

TQC Part 2 Classroom-Level Questions: Classroom and Student Characteristics

The total number of children enrolled in a class is a widely used index of instructional quality at all levels of education. Though the findings are mixed for much of the existing research on class size, Project STAR in Tennessee has shown consistently positive gains resulting from smaller class sizes. The project was a carefully designed, random assignment study of some 6500 students in 330 classrooms (K through grade 3) in 80 schools across the state of Tennessee. In each of these grades, children in smaller classes (13 to 17 students) compared with children in larger classes (22 to 25 students) showed significantly improved performance on standardized and curriculum-based tests in reading, mathematics, listening, and word recognition scores (Mosteller 1995; Shin and Raudenbush 2011). In a follow up study through eighth grade, students who were in small classes during K-3 continued to score significantly higher on standardized achievement tests than their peers who had attended regular-size classes or regular-size classes with a teacher aide (Pate-Bain et al. 1997).

The effort to educate all children in regular education programs presents challenges to teachers at all levels of education. Children with particular needs that may present challenges to teachers include those with physical and cognitive disabilities, as well as ELL and gifted and talented children. The ECLS-K:2011 is well-positioned to collect information on how these children are served and the different outcomes associated with treatment differences. The questionnaire includes items on the number of children receiving services for disabilities and the number receiving

services for gifted/talented students. Further, in light of the growing number of ELL children in the country, the ECLS-K:2011 includes several items for the teacher about number of ELL children in the classroom, the languages spoken, and the number of those children receiving services targeted to ELL children.

Research on the use of computers in the classroom has shown mixed results both within and across studies. For example, Fuchs and Woessman (2004) found that both home and school computer use were related to positive achievement outcomes, but when adjusted for family and school characteristics, the results were negative for home computer use and complicated for school use. That is, school computer use showed an inverted "U"-shape relationship with student achievement, meaning that both low and high levels of computer use were less effective than moderate use. Nevertheless, studies of more specific use of computers in the classroom show less ambiguous results. Gulek and Demirtas (2005) found that daily laptop use by middle-school students showed significantly higher achievement (including writing test scores, and state-mandated standardized test scores in reading and mathematics) for these students than for students who did not have daily access to laptop computers. Kim and Chang (2010) found that playing computer mathematics games had different effects on fourth-grade NAEP assessment scores depending on the characteristics of the students, with the highest positive effects for male students whose first language was other than English.

Teachers will provide information about classroom and student characteristics including:

> Grade level(s) of classes the teacher teaches;

> Class demographics: class size, gender distribution, number repeating grade;

> Number of children in the classroom in a gifted and talented program;

> Number of children above or below grade level in reading, mathematics, and science;

> Number of children with disabilities;

> Number of children who are English language learners;

> Number of children absent on an average day;

> Overall behavior of the class, and prevalence of specific problem behaviors; and

Use of computers and other electronic devices for instruction in the classroom.

TQC Part 2 Classroom-Level Questions: Response to Intervention

While the School Administrator Questionnaire will provide information about school-wide implementation of Response to Intervention (RtI), the TQCs will include items targeted at practices and procedures in the fourth-grade classrooms associated with RtI methodology. The questions are intentionally worded so that information about methods typically incorporated in RtI models will be obtained from the teachers without mentioning RtI by name. This is done so that the implementation of the methods and practices themselves can be measured regardless of the particular terminology adopted by the teacher or school (i.e., some teachers may incorporate RtI methods without referring to them as RtI).

Teachers will be asked to report on the following classroom practices for measuring performance and for delivering instruction to students who are struggling:

- Implementation of various RtI-type features for reading and mathematics (e.g., learning goals, benchmarks, criteria for intervention) in the school's fourth-grade classrooms;

- Specialists in reading and mathematics who provide instruction to students who are struggling;

- Professional development activities covering the use of assessment data for identifying struggling students and for guiding instruction in reading and mathematics;

- Frequency and purposes of assessing students in reading and mathematics;

- Assistance and training from other staff for reading and mathematics instruction, delivery of behavior supports, and use of assessment data, and

- Completion of college courses addressing the use of data to inform the choice of academic and behavioral interventions. (Note that this item is in the TQ since it is related to the education and training items in that instrument.)

C.5   Special Education Teacher Questionnaires

Teachers or related service providers who provide special education and related services to study participants will be asked to complete two types of questionnaires

in the spring fourth-grade data collection. The first questionnaire gathers data on teacher background, training, experience, and teaching assignment. In the second questionnaire, special education teachers will be asked to provide information on the specific study children with whom they work, completing one questionnaire for each ECLS-K:2011 child who has an IEP. There are no changes to the special education teacher questionnaires for fourth grade except for minor wording changes to refer to the appropriate grade level, when relevant.

C.5.1 Special Education Teacher Questionnaires: Research Questions

SEQ1: What are the types of service delivery models in place for special education? How do program variations relate to differences in children's academic and social development?

SEQ2: What is the prevalence of different types of disabilities among children in elementary school? What types of services, instructional strategies, and assistive devices are provided to children with different types of disabilities?

SEQ3: How is inclusion related to children's progress through the early grades?

SEQ4: Do teachers' sociodemographic characteristics and their educational background and experience influence children's outcomes, on average or in interaction with children's sociodemographic backgrounds?

SEQ5: How do teachers and schools handle the diversity of children's skills? How are children with special needs taught?

SEQ6: Are teachers' practices to involve parents associated with higher levels of parent involvement?

SEQ7: How are children identified for receipt of special education services?

C.5.2 Special Education Teacher Questionnaires: Construct Coverage

Special Education Teacher Background

Information on teachers' demographic background, education, certification, and teaching experience are of interest to researchers because they provide contextual information about the child's learning environment. Other teacher information, such as teacher reports of their professional efficacy and their workload (e.g., number of students they teach, teaching assignment, and position), may affect special education practitioners' job satisfaction and decisions to stay in the field of

education. According to the U.S. Office of Special Education Programs,[18] "while there are a number of factors that affect whether individuals choose to stay in public education, special educators most often cite paperwork burdens and unmanageable caseloads and/or workloads as the two prime reasons why they decide to leave the public schools.'

The following demographic, training, and experience information will be collected from special education service providers of ECLS-K:2011 children:

Teacher's sex, age, and race/ethnicity;

Total years teaching experience;

Total years as a special education teacher;

Teacher's education, including degrees, credentials/licenses, certification, and coursework;

Teaching position and assignment;

Locations in which the teacher delivers services within the school;

Teacher's job satisfaction and sense of efficacy; and

Teaching student caseload (number of students with IEPs with whom the teacher works during a typical week).

Child-Specific: Disabilities and Placement

Holt, McGrath, and Herring (2007) analyzed ECLS-K data to determine when most children entered special education in the early years of elementary school and how long they stayed in the program. Twelve percent of children received special education in at least one grade—kindergarten, first, and/or third grade[19]. Boys, poor children, and children from small towns (compared to children in cities) were most likely to be enrolled in a special education program. The percentage of children receiving special services was higher in third grade than in kindergarten and first grade and the most commonly identified primary disability changed across grade levels. These studies and others conducted with ECLS-K data point to the importance of further research on the relationship between children's diagnosed disabilities and receipt of special services and programs. Such information is best

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[18] U. S. Office of Special Education Programs. (2001). SPeNSE. Retrieved from http://www.spense.org/, April 4, 2003.

[19] ECLS-K did not collect data at 2nd grade.

collected from the child's special education teacher because he or she is likely the individual most familiar with the child's IEP plan and the types of services, accommodations, and assistive devices used with the child.

The child-level Special Education Teacher Questionnaire asks the teacher to provide the following student-level information:

Whether the child is receiving special education services through an IEP;

When the child was determined eligible for and began receiving services through an IEP;

Teacher's review of the child's records related to special education services;

Child's disabilities;

Goals contained in the child's IEP;

Type and amount of special education and related services the child receives;

Child's classroom placement;

Teaching methods and curriculum materials used with child, including assistive technologies, whether the child uses a service animal at school, and whether the child has full-time use of a computer;

Communications with other teachers about the child;

Communication with the child's parents;

Individual evaluations to develop IEP goals;

Extent to which the IEP goals have been met; and

Extent to which child is expected to meet general education goals and participate in grade-level assessments.

C.6   Child Questionnaire

Prior to the start of the direct cognitive assessment, children in the fourth-grade round will be asked to complete a self-administered, computerized questionnaire. The Child Questionnaire (CQ) is administered on a computer using audio-enhanced, computer-assisted self-interviewing (audio-CASI). Children will choose answers to the questions by selecting responses directly on the touch-sensitive screen of the laptop. Items in the CQ include those measuring children's emailing, texting, and messaging, their behavioral engagement in school, peer support, fear of negative

evaluation, feelings of loneliness, and peer victimization. Children will also be asked if they have a family pet and if so, how close they are with that pet. Children will be asked to indicate how often they feel certain emotions or experience certain behaviors.

C.6.1 Child Questionnaire: Research Questions

CQ1: Is behavioral engagement with school related to academic performance? What school-level characteristics are associated with behavioral engagement? What classroom-level characteristics are associated with behavioral engagement? How are peer relationships associated with behavioral engagement?

CQ2: Are peer relationships and interactions associated with children's behavior in the classroom? What teacher, classroom, and school factors are associated with peer relationships and peer interactions? Is executive functioning associated with peer relationships?

CQ3: How does social distress (as defined by fear of negative evaluation and loneliness) relate to academic, cognitive, social, and behavioral outcomes? How prevalent is social anxiety among elementary-aged children? How is social anxiety related to achievement? What child, family, and teacher characteristics are associated with social distress and loneliness?

CQ4: Do children report that they experience peer victimization? What is the prevalence of different forms of peer victimization? What child, family, teacher, classroom, and school characteristics are associated with peer victimization? Is reported peer victimization related to cognitive functioning, academic achievement, or child behaviors?

CQ5: How often do children use electronic modes of communication? How is online communication usage related to academic achievement, cognitive development, behavior, and health? How is online communication usage related to peer relationships and peer victimization?

CQ6: How does pet ownership and relationships with pets influence school performance, school engagement, social relationships, psychological well-being, and health? Does human-animal interaction act as a buffer for children who experience difficulty at home or in school or who experience social, emotional, or learning challenges?

C.6.2 Child Questionnaire: Construct Coverage

Behavioral Engagement with School

The concept of student engagement with school comes from a model of human motivation and is an indication of the student's connection or involvement with schooling. Students' engagement in learning and classroom activities is considered by many researchers to be an indicator of how successful a student is and can predict the student's achievement and eventual completion of school (see Fredricks et al., 2004, for a review). Researchers are interested in student engagement because it is viewed as a characteristic associated with student achievement that is malleable and can, therefore, be shaped by the environment. Researchers are interested in identifying school-level features (e.g., class size, disciplinary policies) and classroom-level features (e.g., teacher support, peers, instructional approaches) of the educational context that could be changed to improve engagement and, therefore, increase positive student outcomes.

Researchers commonly focus on behaviors that reflect engagement, including effort exertion and persistence, as well as attention and concentration. These are behavioral manifestations of a motivated student. They represent the kinds of behaviors that would encourage a student to participate in activities and interact with materials and people, which may lead to learning. Students tend to be good reporters of their behavioral engagement; although students may not know why they are motivated to participate in classroom activities, they know if they are indeed motivated and engaged in classroom activities. Teacher report may be less accurate, especially if students try to conceal their lack of engagement, or are simply compliant rather than engaged (Skinner, Kindermann, and Furrer 2009).

In order to measure behavioral engagement, students will be asked to report their own effort, attention, and persistence while initiating and participating in learning activities. Specifically, the CQ asks children to rate how often they:

Try to do well in school;

Work as hard as they can in class;

Participate in class discussions;

Pay attention in class; and

Listen carefully in class.

Peers' Social Support

A child's relationships with peers are a significant predictor of later social, emotional, and psychological adjustment (Parker and Asher, 1987) and significantly shape development (e.g., Rubin, Bukowski, and Parker, 2006). Within peer contexts, children and adolescents acquire skills, attitudes, and experiences that affect adjustment, well-being, and health (Rubin, Bukowski, and Lauren, 2009). Peer relationships can contribute to putting a child on a trajectory toward maladjustment and psychopathology or on a path toward competence and health (e.g., Parker et al. 2006). Difficulties with getting along with peers can be problematic during early childhood and can lead to such problems as peer rejection, school disengagement, and underachievement (e.g., Coie and Kupersmidt, 1983; Ladd, 2006). Negative peer relationships can also lead to even more serious problems for adolescents and adults, including criminal behavior, mental illness, and underachievement (see Dodge, Coie, and Lynam, 2006; Parker and Asher, 1987). In contrast, positive peer relationships can increase opportunities for learning, increase self-esteem, positively influence attitudes toward school and learning, and improve academic achievement (Wentzel 2009).

The CQ includes questions on the child's social support network. Children to rate how often school friends are available to:

Make them feel better when they are having a bad day;

Let them play with them;

Make them feel happy;

Help them if they hurt themselves on the playground;

Say that they are their friend; and

Help them if other children were being mean.

Social Distress

A child's early positive interactions with peers have been shown to have effects on later social adjustment and development, as well as personal satisfaction and

happiness. Group acceptance is an important facet of children's successful relationships with peers; reciprocal friendships are particularly valued. Unpopular children not only have fewer connections with other peers, but also experience increased feelings of loneliness (Asher et al. 1984). Children's feelings of loneliness can seriously undermine their feelings of well-being and result in possible further isolation (Parker and Asher 1993).

Social anxiety often arises during the early elementary years and can continue throughout the adolescence. Particularly in the context of fear of negative peer evaluation, social anxiety has been shown to affect the development of later socialization skills. Children who excessively worry about whether they are unlikable or are not accepted by others may also demonstrate lower self-worth and exhibit more behavior problems, and may be more susceptible to anxiety and depression (LaGreca and Stone 1993).

In the CQ, children provide information about the following types of fear of negative evaluation and loneliness:

Concern of not being liked by other children;

Concern about what other children think about him/her;

Feelings of loneliness while at school;

Feelings of being left out; and

Feelings of being alone.

Occurrences of Peer Victimization

As mentioned in the teacher questionnaire section above, research suggests that peer victimization can be experienced by children in their elementary years and that these experiences can be related to negative outcomes. Collecting self-reported data, in addition to teacher-report data, will allow for the examination of child's perception of peer victimization across different contexts.

In the CQ children indicate the frequency of being subjected to the following types of behavior by peers during the school year:

Being teased or called names;

Had lies or stories told about them;

Been physically assaulted (e.g., pushed or kicked); and

Been left out from play activities.

Media Usage

Students are gaining access to cell phones, smartphones, computers, iPads, iPods, and other electronic devises at increasingly younger ages. As children gain access to these devices they become increasingly aware of the world of social media. The ECLS-K:2011 provides a unique opportunity to investigate elementary school children's use of social media. Researchers are interested in examining how media usage affects not just learning and achievement but also social relationships, emotional health, behavior, and physical health.

In the CQ, children will be asked to indicate

The frequency with which they sends emails, texts, or messages;

Whether there are family rules about to whom they may email, text, or message; and

Whether there are family rules regarding when they may send emails, texts, or messages.

Family Pets

A relatively new area of research examines the role that pets can play in children's development, health, and well-being. Interactions with a family pet or therapeutic animal interventions can influence children's social, emotional, cognitive and health outcomes (e.g., McCardle, McCune, Griffin, Esposito, and Freund, 2010; McCardle, McCune, Griffin, and Maholmes, 2010; Esposito, McCune, Griffin, and Maholmes, 2011). For example, animals can influence the development of social competence by strengthening empathy, serving as a catalyst for social interaction, improving relationships, and providing emotional support. Further, animals in classrooms can motivate children to learn and improve a wide range of developmental skills (McCardle et al, 2010). Melson (2003) suggests that having an animal companion may stimulate a young child's curiosity and learning, in addition to providing emotional support to the child. Wood, Giles-Corti, and Bulsaras (2005) found that owning an animal encouraged relationships within the community.

Human-animal interaction can influence physiological and health outcomes (e.g., Esposito, McCune, Griffin, and Maholmes, 2011). There is evidence that interaction with animals is associated with the reduction of stress (Baun, Oetting, & Bergstrom, 1991; Viau, Arsenault-Lapierre, Fecteau, Champagne, Walker, and Lupien, 2010) and improved physiological responses, including cortisol and epinephrine production, blood pressure, and heart rate variability (i.e., Allen, Shykoff, & Izzo, 2001; Anderson, Reid, & Jennings, 1992; Wilson, 1987). In addition, pet ownership is associated with reduced obesity. Researchers have found that young children in families who own dogs were less likely to be overweight or obese, compared to families without a dog (Timperio, Salmon, Chu, & Andrianopoulos, 2008).

Animals are used in a variety of settings to support children with behavioral or emotional problems (Esposito, McCune, Griffin, and Maholmes, 2011). Animals can provide emotional support to children, especially for children experiencing difficult or stressful situations (Nagengast, Baun, Megel, & Liebowitz, 1997). Researchers have found that positive physical and psychological outcomes are associated with the social support that animals can provide (Allen, 1997; Garrity & Stallones, 1998).

Children will be asked whether or not they have a family pet. Children who have at least one pet will also be asked the following:

How old they were when they got their first pet;

How many and what kind(s) of pet they have;

Whether they have a favorite pet;

Questions assessing their attachment to the pet, such as time spent playing with the pet, proximity of the pet when doing things like homework or watching TV, seeking the pet for comfort, and whether the pet is considered a member of the family.

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