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

Spring First-Grade and Fall Second-Grade National Data Collections

OMB Clearance Package
 # 1850-0750 v.10

Supporting Statement

Part B & C

Prepared by

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Collection of Information Employing Statistical Methods

B

This current submission requests an update of the most-recent previously obtained clearance for the ECLS-K:2011 fall 2011 first-grade data collections, which expires 5/31/2013 (OMB No. 1850-0750). The current submission describes the procedures for the spring first-grade and fall second-grade data collections, which have been informed by the experiences and results of the ECLS-K:2011 kindergarten data collection rounds, the ECLS-K:2011 first-grade field test, and the ECLS-K kindergarten and first-grade data collection rounds.

B.1 Universe, Sample Design, and Estimation

Section B.1.1 includes information on the universe of interest and the sampling plan for the base year of the national study. Section B.1.2 describes the precision requirements and target sample sizes set out for the study. Section B.1.3 discusses the sample design for the spring-first data collection. Section B.1.4 discusses the sample design for the fall-second 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 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 were selected, also with PPS, within the sampled PSUs. This stage includes oversampling of private schools to ensure that the sample includes enough students attending private schools to generate reliable estimates about them. 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. Although they were oversampled as one group, the number of completed interviews for children in each of these groups is expected to be large enough in the kindergarten year to produce estimates for each group separately. Only base year respondents will be included in the sample in spring-first grade. Due to the high cost of following children who change schools (i.e., "movers"), children who move from the school they attended in kindergarten will be subsampled for follow-up and inclusion in later rounds of collection. The subsampling rate will be around 50 percent but may vary between grade 1 and grade 5 by children's characteristics in order to preserve large enough groups of sampled children that are of particular analytical interest (e.g., language minority children (children from a home in which the primary language is not English)).

B.1.2 Precision Requirements and Sample Sizes

An objective of ECLS-K:2011 is to obtain a minimum level of reliability for estimates pertaining to 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 are identified and form the basis for the base year 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 grade 5 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 5th 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:

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

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 α=0.05, β=0.80, ρ=0.75, P_1=0.30 and P_2=0.36, the sample size needed per wave is 241.[1] 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 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 rates at which children move from the base year sampled school to other schools, the rates at which the movers will be subsampled after the base year (children who move between fall and spring kindergarten will not be subsampled), the rates at which the subsampled movers will be located, and the child completion rates. A complete case, also referred to as a respondent, is a child who has a completed assessment or a completed parent interview. We know the movements of ECLS-K children after each data collection year and how successful we were at locating them for follow-up, and we have modeled the assumed rates for the ECLS-K:2011 on this experience. In ECLS-K, children who moved to another school (but not necessarily residence) were followed at a rate of

[1] 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.

50 percent in grade 1, slightly higher in grade 3 so that all language minority children were retained, 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. For the ECLS-K:2011, the overall mover subsampling rate will be between 50 and 60 percent, with differential rates for subgroups of interest (e.g., a higher rate for Asians, Native Hawaiians and other Pacific Islanders, and language minority children). The original mover subsampling rate was set at 50 percent, but it may be somewhat higher depending on the achieved base year sample of completed cases. We may raise this rate up to 60 percent in order to reach the grade 5 target sample.

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 would yield approximately 20,700 sampled children in the base year. However, based on the first round of data collection in the kindergarten year, our 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, we substituted refusing schools with newly sampled schools and attempted to obtain the new schools' participation. Although we have not yet completed data collection activities for kindergarten, we estimate we will have a sample of approximately 18,000 kindergarten children in the base year.[2] In order for the sample size at the end of the grade 5 follow-up to be approximately 10,300, which is the number needed to meet the study precision requirements, we may need to follow students who move into other schools at a rate higher than 50 percent (we discuss this in the next section). With the sampling rates for subgroups of interest described in the next section, the fifth grade sample size should be large enough to generate estimates that satisfy the precision requirements for each of the subgroups as well.

The four precision requirements are of equal importance for Hispanics, Blacks, and children of other races who are not part of the Asian or Native Hawaiian and Other Pacific Islander groups. However, these subgroups do not have an impact on the

[2] 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.

determination of the oversampling rates for special groups because their expected sample sizes exceed the required sample size for meeting the precision requirements.

B.1.3 Sample Design for Spring-First Grade

The base sample for the spring first-grade data collection will include all students who are considered respondents for the base-year data collection and who have not moved outside of the United States. All the respondents in the base year 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. A destination school is one to which at least four children from original schools that terminate in kindergarten transfer.[3]

While ideally the study would follow all base-year respondents who move from their original schools into a school that is not considered a destination school between the spring of kindergarten and the spring of first grade, it is expensive to do. Significant effort must be made to locate students in their new schools 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 movers[4] because collecting data on movers 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 often the case that when children change schools, they are the only study child in the school to which they moved. In 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, i.e., they moved between fall-kindergarten and spring-kindergarten. A much higher proportion of children sampled in kindergarten will not be in the same school in first grade. Based on experiences in the ECLS-K, we estimate that the mover rate between kindergarten and first grade is as high as 25 percent.

[3] Except for students repeating kindergarten in the 2011-2012 school year, all students enrolled in schools that have kindergarten as their highest grade are de facto movers. Using the information collected during the base year, a list of destination schools for these students will be compiled for each school that terminates in kindergarten. If four or more students move into a primary destination school in fall 2011, they will be treated as nonmovers.

[4] Movers and nonmovers here refer to movement between schools, not between home addresses.

Due to these cost considerations, the following subsampling strategy will be used. First, three groups of movers will be followed with certainty in the spring first grade data collection: students whose home language is not English (language minority (LM) students), students with an Individual Education Programs (IEP) or who had an IFSP, and students who were sampled for the fall first-grade data collection. The remaining movers (i.e., the movers who are not LM/IEP/IFSP children or part of the fall subsample), will be subsampled for following at a rate of 50 percent. Thus, these movers have a 50 percent chance of being included in the spring first-grade collection. Subsampling movers is implemented by subsampling 50 percent of the students in each of the sampled schools and assigning the sampled students a flag to indicate that they should be followed into their new schools if they move from their original school. This same mover subsampling strategy will be used for the spring collections in second through fifth grade, unless response rates in later rounds are lower than expected and an increase in the subsampling rate is needed to obtain target sample sizes.

B.1.4 Sample Design for Fall-Second Grade

The fall second-grade round will collect data on the same children who are in the fall first-grade subsample (who comprise a subset of the full ECLS-K:2011 sample for whom data were collected in the base year and for whom data will be collected in the first- through fifth-grade spring data collections). Using the same subsample for both the fall first-grade and the fall second-grade collections will allow for longitudinal analysis of the same group of children with data for all rounds of collection.

The fall first-grade sample of students includes approximately 30 percent of the students in the full ECLS-K:2011 sample who were base-year respondents attending schools in the sampled PSUs in kindergarten. This sample was selected by first sampling about one-third of the 90 primary sample units (PSUs) originally selected for the national study (n=30). Next, all eligible schools within these PSUs with students who were sampled in the base year were included in the fall subsample. Lastly, students attending the subsample schools who were still eligible for the study in the fall of 2011 (i.e., who had not moved outside of the United States) were included as part of the fall first-grade sample. Subsampling of movers, as described above, did take place for children who moved from their original base-year school between the spring of kindergarten and the fall of first grade (i.e., any LM/IEP/IFSP children who changed schools were followed with certainty and 50 percent of the remaining movers were subsampled to be followed for

the fall first grade collection). However, subsampling will not be used for children in the fall subsample who change schools after the fall first-grade data collection. That is, children in the subsample who are followed for the fall first-grade data collection will be followed with certainty into later rounds of data collection, regardless of their mover status.[5]

B.2 Procedures for the Collection of Information

Section B.2.1 describes the data collection procedures for the spring first-grade data collection. Section B.2.2 describes the data collection procedures for the fall second-grade data collection.

B.2.1 Spring First-Grade Data Collection

The spring first-grade data collection will include direct child assessments, height and weight measurement, parent interviews, and school administrator and teacher (both regular classroom and special education) questionnaires. Computer assisted interviewing (CAI) will be the mode of data collection for the child assessment and the parent interview. School administrator and teacher data will be collected via hard-copy self-administered questionnaires.

Advance School Contact. At the beginning of the 2011-12 school year, school coordinators[6] will be sent a packet with the list of participating children who will be assessed in the spring. Team leaders[7] will work with the school coordinators to discuss

[5] Children in the fall subsamples are assigned separate follow flags for the fall and spring data collections. Children in the fall subsample are always included in the spring data collection, as noted in the text. Thus, there are two combinations of follow flags for these children: 1) followed in both the fall and spring data collections and 2) not followed in the fall but followed in the spring.

[6] The school coordinator will often be the same school staff member who acted as school coordinator in the kindergarten data collection. 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.

[7] 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 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 hardcopy production information to the home office field directors.

the logistics of the spring assessment visit. Additionally, team leaders will confirm whether the children on the list sent to the school are still enrolled in the school. If the school coordinator informs the team leader that a child has moved to a new school, the team leader will attempt to get the child's new school information from the school coordinator. Team leaders will also determine:

- **Assessment Dates.** The team leader will discuss the schedule for 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.
- **Assessment Location.** The locations within the school where the assessments will take place will also be determined. The goal will be to identify assessment 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.
- **Identify Teachers of Sampled Children.** Team leaders will ask the school coordinator to identify the ECLS-K:2011 children's regular classroom teachers and, if applicable, special education teachers of the sampled children.

Team leaders will make a telephone call to each school coordinator to discuss these issues. If a new school is identified for any of the sampled children, 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. The team leader will then work with the school coordinator to schedule an assessment date, determine an assessment location, and identify the teacher (or teachers) of the sampled child. Throughout these pre-assessment activities, positive and cooperative working relationships with school personnel and the school community will be maintained.[8]

During the pre-assessment call, team leaders first will address any questions that the school coordinator or school administrator may have. A primary goal of the pre-assessment call is to determine the logistical arrangements for conducting data collection within the school. A checklist of the arrangements that need to be agreed upon and the tasks to be completed will guide the pre-assessment call. At the time of pre-assessment

[8]During the kindergarten data collections, school coordinators, school administrators, and teachers aided the team leaders and other data collection staff in identifying ways to inform the school community about the study using the school's communication systems and tools, for example by posting news about the survey on the school's website, submitting articles about the survey to the school newsletter, and discussing the survey at a PTA meeting or on Back-to-School Night. To make it easier for team leaders to carry out these informational activities, the principal letter and brochure were loaded on their laptops. These supplies could also be ordered from the Warehouse to distribute at group events..

call, the team leader will also collect classroom teacher information so that questionnaires can be prepared and given to the children's teachers in the spring.

In the spring, team leaders will call the school coordinators prior to the spring assessment visit to confirm the logistical arrangements for the spring data collection within the schools. The spring hard copy questionnaires will be mailed to each school coordinator for distribution at least 2 weeks prior to the school's scheduled assessment visit.

Child Assessment

Typically, the assessment visit will take between 1 and 3 days in each school. The number of days for the site-visit will depend on several factors, such as the number of participating children at the school, any restrictions on the assessment schedule (e.g., assessments only in the morning), and the amount of space available for simultaneous assessments. The length of the site visit will be worked out with the school coordinator during the pre-assessment call. The assessment team that visits the school will include the team leader and two assessors. 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.

The team leader and assessors will be taken by school personnel to the assessment area(s), which they will arrange to 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 60-minute assessment. As discussed in Section A, the assessments will consist of the following: a direct cognitive 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.

The assessment for English language learners (ELL) in first grade is different than what was fielded in kindergarten. In the kindergarten data collections, all ELLs were administered a language screener and an assessment of English basic reading skills in the first part of the cognitive assessment. In spring first grade, the language of assessment for ELLs will be partially dependent on their performance on the language screener the last time they were assessed (for most children, the last assessment will have been during the kindergarten data collection; if the child is in the fall first-grade subsample, then the last assessment will have been during the fall first-grade data collection). ELLs who achieved at least a minimum score on the language screener at their last assessment will not be administered the language screener in spring first grade. ELLs who did not achieve at least a minimum score on the language screener at their last assessment will be administered the language screener in spring first grade. Spanish-speaking ELLs who do not achieve at least a minimum score on the language screener in spring first grade will be administered the English basic reading skills assessment, a test of their basic reading skills in Spanish, and a mathematic assessment and an executive functioning assessment in Spanish. They will also have their height and weight measured. ELLs who do not achieve at least a minimum score on the language screener in spring first grade and who are not Spanish-speaking will only be administered the English basic reading skills assessment and have their height and weight measured.

After completing the assessment, the child will be returned to the classroom and the next sampled child will be assessed. At the end of each day, the data for 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 will have no assessments scheduled, so that make-up assessments can be conducted on those particular dates. Attempts will be made to conduct a make-up assessment for all children absent on their school's assessment day at some point during the field period.

Teacher and School Administrator Questionnaires

During the advance school contact, the team leader will identify the teachers of the sampled children who will be asked to complete questionnaires and enter the teachers' names into the field management system (FMS),[9] creating a link between each sampled child and his or her teacher. This linking system was first developed and used successfully for the ECLS-K and is currently being used in the ECLS-K:2011 kindergarten data collections.

Teachers will be sent a set of materials approximately 2 weeks prior to the assessment visit. These materials will consist of a letter describing the ECLS-K:2011 and a copy of the ECLS-K:2011 brochure,[10] one teacher-/classroom-level questionnaire, one questionnaire for each sample child the teacher teaches, an incentive check, and instructions for completing the questionnaires and returning them to the school coordinator.

Distributing the Teacher and School Administrator Questionnaires. In the spring first-grade collection, teachers will be asked to complete self-administered questionnaires about their background, curriculum, and instructional practices.[11] Teachers of sampled children will also be asked to complete child-level questionnaires about the ECLS-K:2011 children in their classrooms, which indirectly assess the children's socioemotional and cognitive skills. The teacher questionnaires will provide data from a source who has first-hand knowledge of the child and his/her abilities. As described above, the team leader will work with the school coordinator to identify the teachers of the ECLS-K:2011 children during the advance school contact phone call.

[9] The Field Management System (FMS) is a 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.

[10] The ECLS-K:2011 brochure was approved in a previous OMB clearance package submitted on 2/2/10 (it is included in Appendix A of this package).

[11] While most students will be in first grade in spring 2012, 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 teacher questionnaires).

Based on this information, child-level questionnaires will be mailed to the school coordinator for distribution and collection. The average number of children per teacher is expected to be about 6; teachers will receive an incentive of $7 per child-level questionnaire, for an average incentive of $42 per teacher. The incentives will be included in the package of informational materials the teachers receive in the spring. Team leaders will collect completed teacher questionnaires, with assistance from the school coordinator, during the assessment visits. Once all questionnaires have been collected, the team leader will mail the completed questionnaires to the home office via FedEx. If there are any questionnaires that are not completed by the last day of assessments in the school and hence require follow-up collection, the team leader will collect the remaining questionnaires and mail them to the home office.

In the spring, the teachers or service providers of sampled children who are receiving special education services, i.e., special education teachers, will 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 child receives in a separate child-level questionnaire. The special education questionnaires will be distributed and collected in the same manner as the regular classroom teacher questionnaires described above. We plan to offer each special education teacher an incentive of $7 per child-level questionnaire. 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. Information about the school administrator, the staff, and the school building will be collected through this questionnaire. The school administrator questionnaire will be mailed to the principal or school administrator in advance of the spring assessment visit; on the first day of assessments at the school, the team leader will remind the school coordinator of the need to complete this instrument. The team leader for each school will collect the school questionnaire during the on-site assessment visit. School administrators will receive a $25 incentive for completing the questionnaire, which will be attached to the school administrator questionnaire during the spring data collection. If the school questionnaire has not been completed by the beginning of the last day on-site for assessments, the team leader will remind the school coordinator about it again. If the school questionnaire still is 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 school

administrator will complete the questionnaire. Follow-up will continue until the questionnaire has been received.

Parent Interview

ECLS-K:2011 field staff will be trained to conduct both the child assessments via CAI and 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. 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, field staff will be trained to place two day, three evening, and two weekend calls over a 2-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 attempt an in-person interview. During the last few weeks of data collection, cases that have not yet been contacted or completed will be attempted as in-person interviews to improve response rates.

Non-English Interviewing. The ECLS-K:2011 sample includes a substantial number of children from linguistically isolated households. (A household is considered linguistically isolated if no one older than 14 speaks English very well.) In order to include these families in the ECLS-K:2011, special measures are required. Based on the data from the fall 2010 kindergarten data collection, Spanish is spoken in the majority of these households. Of the 13,461 completed fall 2010 parent interviews, 1,175 were completed in a foreign language. Of those, 1,121 (or 95%) were completed in Spanish. Therefore, as was done for the ECLS-K:2011 kindergarten 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 fall kindergarten data collection 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, identify and train bilingual staff that represent all languages spoken by ECLS-K:2011 families, and send this staff out for extensive travel across PSUs. 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. Over the course of the fall kindergarten data collection, interpreters have been identified for the less common languages that are spoken by sampled children's parents; they will serve as interpreters for the spring first-grade data collection as needed. If a household or community translator is not available, another approach we will employ is to identify bilingual staff working in Westat's Telephone Research Center (TRC) to conduct parent interviews. This approach was used for telephone interviewing in another NCES study (the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B)). An interpreting service was used to obtain interpreters for about 20 languages who were connected in a three-way conference call with an English-speaking interviewer and the respondent. Evaluations of the quality and cost of data obtained in this way have established that it can be an efficient way to collect data from respondents who speak less common languages.

B.2.2 Fall Second-Grade Data Collection

The fall second-grade data collection will include direct child assessments, hearing screenings, height and weight measurement, parent interviews, and questionnaires for children's regular classroom teachers. Computer assisted interviewing (CAI) will be the mode of data collection for the child assessment and the parent interview. Teacher-reported information about the ECLS-K:2011 children's skills and experiences in school will be collected via hard-copy self-administered questionnaires.

Pre-Assessment Activities. School coordinators will be sent a packet with the list of participating children who will be assessed in the fall. Team leaders will work with the school coordinators to discuss details of the schools' participation. Additionally, team leaders will confirm whether the children on the list sent to the school are still enrolled in the school. If the school coordinator informs the team leader that a child has moved to

a new school, the team leader will attempt to get the child's new school information from the school coordinator. As described in section B.2.1, team leaders will also determine the schedule for data collection, the locations within the school where the assessments and hearing screening will take place, and the regular classroom and special education teachers[12] of the sampled children.

Team leaders will make a telephone call to each school coordinator to discuss these issues. If a new school is identified for any of the sampled children, 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. The team leader will then work with the school coordinator to schedule an assessment date, determine an assessment location, and identify the teacher (or teachers) of the sampled child.

During the pre-assessment call, team leaders first will address any questions that the school coordinator or school administrator may have. A primary goal of the pre-assessment call is to determine the logistical arrangements for conducting data collection within the school. A checklist of the arrangements that need to be agreed upon and the tasks to be completed will guide the pre-assessment call. At the time of pre-assessment call, the team leader will also collect classroom teacher information so that questionnaires can be prepared and given to the children's teachers. Once the teachers of sampled children are identified, team leaders will prepare the teacher materials and deliver them in-person to the school coordinators for distribution at least 2 weeks prior to the fall second-grade site visit.

Child Assessment

The data collection procedures for the child assessment are similar to those described in section B.1.2. As discussed in Section A, the 60-minute, one-on-one assessments will consist of the following: a direct cognitive assessment of reading, mathematics, science, and executive functioning,[13] and measurement of children's weight and height, which

[12] Special education teachers will be asked to complete a questionnaire in the spring second-grade data collection, not the fall data collection. However, field staff will identify the special education teacher in the fall to prepare for the spring data collection.

[13] A computerized version of one of the executive function tasks, the Dimensional Change Card Sort (DCCS), is proposed to be field tested in spring 2012 for use in the fall second-grade assessment battery. Please see section B.4 for more information on the instrument and the field test procedures.

will be obtained using instruments and equipment brought by the assessors. However, the process flow for second grade will be less complex than that of the first grade, assuming that by second grade, most, if not all, children are proficient enough in English to be assessed in English. It is expected that by second grade, all English language learner (ELL) children will have sufficient English proficiency for assessment in English. For this reason, we do not anticipate that the language screener will be used in the fall second-grade collection. However, if a substantial number of students do not show proficiency in English by spring of first grade, the process flow used in first grade will be used. Under the assumption that all ELL children will have sufficient English proficiency for assessment in English, the process flow will be as follows:

1. Reading routing test followed by one of three second-stage forms
2. Math routing test followed by one of three second-stage forms
3. Executive function measures: Dimensional Change Card Sort and Numbers Reversed
4. Science routing test followed by one of three second-stage forms
5. Measure of height and weight

Hearing Screening

Parents will be asked to sign consent forms to indicate that their children can participate in the hearing screening portion of the study. As an additional step in obtaining parent consent, we will seek explicit verbal consent from parents for their children to participate in the hearing screening activities during the spring first-grade parent interview, and this verbal consent will be recorded in an audio file. This will serve as additional confirmation of consent for those parents who already provided consent before they were called. It also provides an additional method by which study staff can obtain explicit consent from those parents for whom it is required but who have not yet returned their consent form. Because we must obtain parent permission before the hearing screening takes place, this strategy should help to have the necessary consent in place at the time the assessment teams visit schools to conduct the hearing screenings.

The screenings will be conducted by a group of field technicians trained specifically on administering the hearing assessments; these staff will not be conducting other portions of the child assessments. When identifying field technicians for the ECLS-K:2011 hearing screening data collection, priority will be placed on finding staff who have research

experience, experience working with children, and experience with the hearing screening equipment and protocol used in ECLS-K:2011. A health screening/audiologist will train the technicians for the hearing screening; the training will cover not only the use of the specialized screening equipment and the screening protocol, but also general issues relating to research with child participants.

Before performing the hearing screening, the technician will ask the children a series of questions on their hearing. For children who are eligible for the screening based on their replies to the questions, the technician will look into the children's ear canals with an otoscope to see if anything (such as earwax) is blocking them. The technician will not attempt to remove blockages, but will use this information to determine which parts of the hearing screening are appropriate and safe for the children.

The technician will then perform two hearing screenings: audiometry, which tests hearing sensitivity, and tympanometry, which tests middle ear functioning. The screening will be stopped for any child who complains of an earache, who tires of any of these exams, or who reports any discomfort at the feel of the headphones (for audiometry) or the tympanometry probe. For each child screened, the technician will use a new set of disposable components and will disinfect nondisposable equipment that touches the child. After the hearing screening, parents will receive a letter with the findings from the child's hearing exam.[14] If technicians find that the child's exam suggests possible hearing problems, the letter will suggest that the parent talk with the child's doctor or a hearing professional.

Teacher Questionnaires

The team leader will identify the teachers of the sampled children who will receive the child-level teacher questionnaires and enter the teachers' names into the field management system, creating a link between each sampled child and his or her teacher.

Once the teachers of sampled children are identified, team leaders will prepare the classroom teacher materials and deliver them to the school coordinator for distribution

[14] This letter will provide basic information about whether there is a possibility of hearing loss. The letter will inform parents that the screenings conducted as part of ECLS-K:2011 do not replace an examination by a trained audiologist or doctor. If findings suggests possible hearing problems, the letter will suggest that the parent talk with the child's doctor or a hearing professional.

at least 2 weeks prior to the fall second-grade site visit. These materials will consist of a letter describing the ECLS-K:2011, a copy of the ECLS-K:2011 brochure,[15] one questionnaire for each sample child the teacher teaches, an incentive check, and instructions for completing the questionnaires and returning them to the school coordinator.

Distributing the Teacher Questionnaires. In the fall second-grade collection, teachers will be asked to complete a child-level self-administered questionnaire about each ECLS-K:2011 child in their classrooms. The questionnaire indirectly assesses the children's socioemotional and cognitive skills, children's experiences in school, and teacher- or school-assigned summer learning activities. As described above, the team leader will work with the school coordinator to identify the teachers of the ECLS-K:2011 children and deliver the child-level questionnaires to the school coordinator for distribution and collection. The average number of children per teacher is expected to be about 6; teachers will receive an incentive of $7 per child-level questionnaire, for an average incentive of $42 per teacher. Team leaders will collect completed teacher questionnaires, with assistance from the school coordinator, during the assessment visits. Once all questionnaires have been collected, the team leader will mail the completed questionnaires to the home office via FedEx. If there are any questionnaires that are not completed by the last day of assessments in the school and hence require follow-up collection, the team leader will collect the remaining questionnaires and mail them to the home office.

Parent Interview

The data collection procedures for the parent interview are similar to those described in section B.2.1. ECLS-K:2011 field staff will be trained to conduct both the child assessments via CAI and the telephone interviews with parents using a computer assisted telephone interviewing (CATI) instrument. 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).

[15] The ECLS-K:2011 brochure was approved in a previous OMB clearance package submitted on 2/2/10 (see Appendix H).

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 first-grade and fall second-grade rounds of the ECLS-K:2011 and the methods that will be used to maximize completion rates for child assessments, parent interviews, 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. In ECLS-K, 25 percent of children changed schools between kindergarten and first grade, and by the fifth-grade round, 56 percent of children were in different schools than they were in for kindergarten. To the extent that parents take advantage of the opportunity to transfer their children from schools that are defined as in need of improvement under the Elementary and Secondary Education Act of 2002 (ESEA), school mobility may be greater in ECLS-K:2011 than it was more than a decade earlier for the ECLS-K.

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 are heavily burdened and often reluctant to spend time on non-teaching activities. 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 base year of the ECLS-K:2011 is 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. We aim to establish rapport with the whole community—principals/administrators, teachers, parents, and children. The school community must be approached with respect and sensitivity to achieve high initial 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, and completing child assessments and parent interviews—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 assessments as well as the parent interviews and any required followup 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.

Based on the experience from ECLS-K, most families who participate in kindergarten continue 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. The fact that parents have given consent to the longitudinal study is an incentive for schools to continue participating. In addition, the school coordinator is instrumental in maintaining school participation and recruiting new teachers into the study in later rounds.

B.3.2 Methods to Maximize Response Rates

Parent Interviews

There are four main areas that can be focused on in order 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.

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, field staff will be trained to place two weekday, three evening, and two weekend calls over a 2-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 a letter 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 (i.e., call other phone number, send email, or fax) listed for the parent, if any; (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 to improve response rates.

Non-English Interviewing. In the fall kindergarten data collection the ECLS-K:2011, 9 percent of the 13,461 completed parent interviews were conducted in a language other than English. 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.

Locating Parents of Transfer Children. Locating parents of transfer children is critical for maintaining high completion rates for parent interviews overall. It is expected that a substantial portion of participating children will transfer schools between the kindergarten, first-grade, and second-grade 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 earlier will be conducted to locate children who transfer schools. While this OMB package requests approval for the spring first-grade and fall second-grade collections, long-term study plans are to follow the sample children through fifth grade. 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.

Refusal Avoidance and Conversion Procedures. Achieving an acceptable parent response rate will require active and effective refusal conversion efforts. A key factor in converting refusals is the ability of the team leaders and assessors to clearly and confidently convey the purpose and importance of the study and 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 and between 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 Assessments

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

Absent Children. It is expected that some children will be absent from school during the time that assessments are scheduled at their school. Days will be set aside throughout the field period in which some field staff have no assessments scheduled, so that make-up assessments can be conducted. 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 for in-home assessments for these children, if possible.

Locating Transfer Children. As was 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.

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.

School and Teacher Instruments

There are three main areas that can be focused on in order to maximize completion rates for the teacher hard-copy instruments: (1) early distribution of instruments to schools and teachers, (2) effective communication of the importance of school administrator and teacher participation to school personnel in schools to which ECLS-K:2011 children have transferred after the kindergarten year data collection, (3) effective communication of the importance of participation to school administrators and teachers new to the study, regardless of whether or not their school participated in the kindergarten round, and (4) efforts made by supervisory staff to avoid refusals and to convert initial refusals to cooperating respondents.

Early Distribution of Instruments. Feedback from school administrators and teachers in the ECLS-K indicated that there would have been increased participation if they had had more time to complete the hard-copy instruments. For the spring first-grade data collection, most of the sampled children's regular classroom and special education teachers, as well as the school administrators, will be identified during the advance school contact in the fall of the first-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.

For the fall second-grade data collection, most of the sampled children's regular classroom teachers will be identified during the preassessment call in the fall of the second-grade school year. Once the teachers are identified, team leaders will prepare the teacher packets and go to the school to distribute the packets, asking teachers to complete the questionnaires before the assessment visit.

Effective Communication with School Staff New to the ECLS-K:2011. The participation of newly identified school administrators and teachers (including new teachers 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. 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 in the kindergarten data collection, so a record of consent will be available for new schools. For children moving into new schools, each 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.

Maximizing Response Rates for Hard Copy Instruments. Team leaders will be trained to maximize the response rates for the hard-copy instruments, which will 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 teachers or school coordinators. 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.

Special Considerations in Maintaining Cooperation. 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

We will subsample movers using a scheme that is similar to that used in ECLS-K as a way to reduce nonresponse bias. 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. If four or more students from one school move into the same new school, we designate this new school as a destination school. All students who move to a destination school are followed, rather than being subsampled as movers.

While we will not follow all movers, we plan to follow those in special groups of policy interest at higher rates than other movers to protect the sample sizes and statistical power for analyzing these groups of children. Specifically, language minority children, children with an IEP, and children who had an IFSP will be followed with certainty if they moved. Other children who move will be subsampled at a rate of 50 percent. This subsampling strategy reduces data collection costs for the movers and ensures that the variances of the estimates are not greatly inflated.

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 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).

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 on ECLS-K:2011.

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The ECLS-K:2011 Instruments C

C.1 Introduction

This section provides information about the general contents of the ECLS-K:2011 parent interview, the school administrator/principal questionnaire, and the regular classroom and special education teacher questionnaires. Appendices B (Parent Interview), C (School Administrator Questionnaire), D (Teacher Questionnaires), and E (Special Education Teacher Questionnaires) include the final survey instruments for the national spring first-grade data collection. Appendices F (Parent Interview) and G (Teacher Questionnaire) include the final survey instruments for the national fall second-grade data collection. Items in the instruments are intended to measure the constructs and topics listed in this section.

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 first and fall second-grade rounds of the study and the general topics covered in each include:

- **Parent Interview**—to be administered to parents/guardians of children in the study. In the spring first-grade, the parent interview includes questions about family structure; the primary language spoken in the home; parent education; parent employment; the home environment; family practices; food security and consumption; discipline; parent involvement in school; school practices; child care; and the child's social skills and behavior. Parents provide assessments of children's social skills that are comparable to those in the

teacher questionnaire and also report on their children's level of physical activity, health, and disabilities.

In the fall second grade, the parent interview includes questions about various educational and enrichment activities the child participated in during the summer, including educational activities in the home; use of a computer for educational purposes; reading books from summer book lists provided by the school; going to the library or bookstore; playing outside; outings; camps; summer school; tutoring; therapy services or special education programs; hours spent watching television and playing video games; and nonparental child care.

- **School Administrator/Principal Questionnaire**—to be completed in the spring first-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 first grade; and questions about the school administrator/principal and about the teaching staff.

- **General Classroom Teacher Questionnaire**—to be completed by classroom teachers of children in the study. In spring first-grade, there are two teacher questionnaires. The first includes questions about the classroom and student characteristics, class schedules, class materials, instructional practices, and curriculum. It also includes items on the teacher's background, teaching experience, and attitudes about teaching and the school climate. The second questionnaire is a child-level questionnaire that has questions specifically about each study child and includes the teacher's assessment of the child's academic and cognitive abilities, behaviors, and social skills, as well as information about program placements and specific services that each child may receive.

  In fall second-grade, only a child-level questionnaire will be administered. This child-level questionnaire has questions specifically about each study child and includes the teacher's assessment of the child's language and literacy skills, classroom behaviors, approaches to learning, social skills, summer assignments, and achievement grouping placement.

- **Special Education Teacher Questionnaire**—to be completed in the spring first-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.

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 constructs 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 in relation to them as children progress through school is a key goal of the ECLS-K:2011. Conducting interviews with parents is central to obtaining the information necessary to measure these constructs over time. The ECLS-K:2011 defines the parent to be interviewed as the child's parent or guardian in the household who knows the most about the child's care, education, and health. If the parent or guardian is not available during the field period, or if there is no parent or guardian, another adult who knows about the child's care, education, and health is selected as the respondent.

C.2.1 Spring First-Grade Parent Interview

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

C.2.1.1 Spring First-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 first-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 first 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? How do schools respond to the needs of parents with little or no English proficiency? Are school or teacher practices to involve parents associated with higher levels of parent involvement??

- PQ6: What are children's patterns of participation in child care up to the end of first grade? How do early care and education arrangements differ by family sociodemographic factors, SES, and race/ethnicity? How are these arrangements related to children's progress through school? How does participation in early care and education in the year before kindergarten relate to participation in before- and/or after-school care during first grade (e.g., in what ways are these arrangements similar or different)?

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

Child Characteristics

The child's sex, date of birth, and race/ethnicity are collected if they are missing data from previous rounds.

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

Parent's Involvement with the Child's Education

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

The research on parent involvement describes not just how parents are involved with schools but also how schools work to involve parents. The reauthorization of the Elementary and Secondary Education Act (ESEA) specifically mentions the need for states to consider proven practices for involving parents in the education of their children. The ECLS-K:2011 will ask parents about school practices designed to increase involvement and communication with parents and ask them to evaluate how well their child's school does these practices.

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

- Parent's choice of school for the child;
- How many times the child has been late for school;
- Parent attendance at parent-teacher conferences and meetings;
- Parent participation in school activities;

- School practices to communicate with parents and encourage involvement;
- Parent networks;
- Whether school methods of communication are in the respondent's native language;
- Frequency the child does homework at home; and
- How often parent or someone else helped the child with homework.

Family Structure

Family structure affects the economic, social, and psychological resources available to the family for child rearing purposes. In 2005, 41% of families headed by a single mother were in poverty, compared to 9% of families with married parents (Dunifon and Kowaleski-Jones 2007). 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 (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 child care 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:

- Biological parent's sex, age, and race/ethnicity; 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 will gather the following information for focal children in the second grade if it had not already been collected in a kindergarten interview:

- Country of origin for parents and sample child;
- Length of residence in U.S. for parents and sample child; and
- Citizenship of the child.

Home Language

It is of interest to know how young children in homes where the primary language is not English become English proficient. One study found that children who started school classified as English language learners, but were reclassified as English proficient later in school, performed similarly on achievement tests compared to those who started school

speaking English, and performed better on achievement tests compared to those who were never reclassified as English proficient (Flores, Painter, and Pachon 2009). The parent interview will include questions about the home languages of the study children and the English proficiency of the parents. Researchers can consider the language environment at home along with information from the school and teacher questionnaires about the child's instructional environment to better understand the interplay of factors related to ELL children's academic progress.

The parent interview includes questions about:

- Languages spoken in the home; and
- Non-English language use.

Home Environment, Activities, and Cognitive Stimulation

The activities and relationship between parent and child represent the 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 may also be critical (e.g., Dunifon and Kowaleski-Jones 2007).

In the ECLS-K, children's literacy has been 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 that can contribute to the development of reading skills (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).

In addition to having books in the home, 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 over the past twelve years. Because computers are now available in many different forms, including various handheld devices such as cell phones, questions about computer use in the ECLS-K:2011 have been modified to allow for home computers and other electronic devices. Also, in addition to asking about how many hours a day children watch television, the study will also ask about how many hours a day children play video games.

Other aspects of the home environment are also included in the spring-first grade parent interview, such as religious service attendance. Bartkowski, Xu, and Levin (2008) used ECLS-K data and found a relationship between parents' attendance of religious services and children's positive socioemotional outcomes. Questions about how often parents attended religious services in the past year will be included again in the ECLS-K:2011.

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

- Literacy materials in the home;
- Frequency of reading activities with the child;
- Availability and use of a home computer;
- Amount of time the child plays video games and watches television;
- Tutoring;
- Child's activities outside of school hours;
- Family routines;
- Child and respondent breakfast/dinner consumption; and
- Frequency of attending religious services.

Neighborhood

In work by Brooks-Gunn, Duncan, Klebanov, and Sealand (1993), evidence was found in two data sets (the Infant Health and Development Program and the Panel Study of Income Dynamics) of effects of neighborhood demographics (especially the proportion of middle-class households and female-headed families) on childhood IQ, teenage births, and school leaving. The concentration of poverty in defined geographic segments of urban areas has received considerable attention (Wilson 1987). Gabarino and Kostelny (1993) found that the rate of reported child abuse in the poorest areas is four times higher than the rate in more affluent areas. Aikens and Oscar (2008) found that negative neighborhood conditions were related to lower growth in literacy and reading ability from kindergarten through the third grade. Children in poor neighborhoods, especially public housing developments, are also more likely than their peers to witness or be victims of violent crime. Parental adaptations to the immediacy of violence in the poorest urban areas include staying close to their children, as well as restricting children's movement in the neighborhood.

The ECLS-K:2011 spring first-grade parent questionnaire focuses on one aspect of the child's neighborhood:

- Neighborhood safety.

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

Social skills have been found to be significant predictors of academic achievement (Clark, Gresham, and Elliot 1985). Problem behaviors, such as aggression or withdrawal, are consistently correlated with negative outcomes for children, including rejection by their peers (for a review of this research see Meisels, Atkins-Burnett, and Nicholson 1995). Based on work by Meisels and his colleagues, the ECLS-K:2011 includes items adapted from the social skills rating system (SSRS) (Gresham and Elliot 1990).

The ECLS-K:2011 also includes measures of approaches toward learning. Learning styles include intellectual openness and curiosity, task persistence and attentiveness, reflection and interpretation, and imagination and creativity. The social skills and approaches to learning behavior ratings from parents are a useful complement to similar measures which will be provided by the teachers. Having two sources of information about the

social skills of the children allows researchers to view children's development in this area in both the home and school environments.

The ECLS-K:2011 spring first-grade parent questionnaire includes measures of:

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

Critical Family Processes

Primary caregivers need to provide for children's basic material needs, nurturance, and protection. Parents are less able to perform as effective caregivers when the family is dysfunctional. A variety of family circumstances pose threats to the healthy functioning and development of children, for example, family illness and disability and high levels of interparental conflict (Shonkoff 1992; Peterson and Zill 1986). Social and material supports for parenting, both on a regular basis and in case of an emergency, may improve parenting styles and enhance parents' ability to foster their child's development.

The spring first-grade parent interview will measure:

- Social support.

Child Care

Research has indicated that the quality of child care received during the early school years has implications for children's functioning in the elementary school grades. For example, in a sample of children who had been exposed to multiple risks in early childhood, Burchinal et al. (2006) found that early child care quality was related to fewer behavior problems and higher mathematics test scores in the first four years of elementary school. Howes (1988) found that with family characteristics controlled, higher quality early child care (center or family daycare) was predictive of better academic progress and school skills and fewer behavior problems in boys, and of better school skills and fewer behavior problems in girls at the end of first grade. In addition,

Peisner-Feinberg and her colleagues from the Cost, Quality, and Child Outcomes study (2001) found that high-quality child care was related to children's language, mathematics, and behavioral competence in the classroom through the first years of schooling.

The quality of early child care has also been related to children's outcomes beyond elementary school. Using data from the NICHD Study of Early Child Care and Youth Development, Vandell et al. (2010) found that high quality early child care predicted higher cognitive achievement test scores and fewer self-reported externalizing problems among adolescents at age 15. In addition, receiving more hours of early child care by a nonrelative was related to more impulsivity and risk taking at age 15.

Because some studies show lasting effects of preschool programs, while others show that the effects fade over time, Magnuson, Ruhm, and Waldfogel (2007) explored why the effects of child care may persist for some children but not others. Using ECLS-K data, they found that children who attended preschool went to kindergarten with more academic skills (based on child assessments) than those who did not. The positive effects of preschool continued to be shown in the third grade. The achievement of those who did not attend preschool improved over time if they were in small classes in school or had high levels of reading instruction. Children who did not attend preschool did not do as well as those who attended preschool if they were in large classes or had low levels of reading instruction in school. Thus, the effects of preschool attendance on achievement were shown to interact with classroom characteristics in school. Future research can take preschool attendance, classroom characteristics in elementary school, and child care during elementary school into account to examine the relation to children's achievement.

Throughout the study, the ECLS-K:2011 will collect information on the number, consistency, and variety of formal before- and after-school care arrangements that the children currently experience.

As children move further in to the school-age years, families may rely more often on nonparental care arrangements—particularly self-care. Information on the amount of time that children spend in self-care, both before and after school, will also be collected.

- Participation in early care and education, by type of arrangement (e.g., relative; non-relative; and center-based);
- Time the child spends in care arrangements;
- Payment for current child care arrangements; and
- Age of the child care provider (e.g., 18 years old or older); and
- Time the child spends in self-care.

Parental Discipline, Warmth, and Emotional Supportiveness

Warm, accepting maternal behaviors 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).

Parenting stress has been related to children's outcomes both directly and through parenting behaviors (Deater-Deckard 2005). Although many studies have shown that parenting stress is negatively related to warm, supportive parenting and positive child outcomes, the relationship between parenting stress and parenting is not always in this direction. Some studies have found that low levels of parenting stress were related to parents being disengaged with their children, while other studies have found individual differences in reactions to stress, such that some caregivers under high stress cope well and have well-adjusted children (Abidin 1992; Deater-Deckard 2005). Whether parenting stress continues over long periods of time and how parents are able to use social support are also factors in the effects of parenting stress. The ECLS-K:2011 spring first-grade data collection will provide an opportunity to examine how parenting stress measured in kindergarten and the first grade are related to social support and children's outcomes.

- Parenting stress.

Involvement of Nonresident Parent

Asking questions about nonresidential parents is of great interest to experts on family involvement. Nearly four out of ten children are born outside of marriage (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 lose contact with them over time and tend to play a smaller role with their children than do resident fathers, a significant proportion of nonresident fathers do remain involved. Moreover, their involvement is important to children's lives (Amato 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.

Several studies have shown a link between receipt of child support and educational attainment and academic achievement (Knox and Bane 1994; Baydar and Brooks-Gunn 1994). Payment of child support also appears to be associated with a lower level of school behavior problems (McLanahan et al. 1994).

The following data about nonresident parents will be collected in the spring first-grade round:

- Current contact and nature of relationship with biological/adoptive parents no longer living in household;
- Establishment of legal biological father status; and
- Child support.

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 risk factor for children and is related to children's development and educational experiences in the preschool years as well as their later experiences in school. These items will also provide the data to analyze the accessibility of special education and other programs and plans for disabled children. Other important indices of children's well-being include rate of growth, physical fitness, health care utilization, and the consequences of the irregular medical care received by some poor school-age children (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). Otitis media is a leading cause of acquired hearing loss. Other contributors include trauma to the nervous system, damaging noise levels, or medications. 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).

Another health risk for children is being overweight. The prevalence of overweight U.S. children has increased sharply since 1980 (Federal Interagency Forum on Child and Family Statistics, 2007). Overall, 36.4 percent of U.S. children (39.8% boys and 32% girls) were in the combined category of at risk of becoming overweight or currently overweight, representing an estimated 17 million children (Tudor-Lock, et al. 2007). Health risk factors associated with being overweight or obese are high blood pressure, asthma, diabetes, stroke, and heart disease. One study using ECLS-K data (Judge and Jahns 2007) found that while overweight third-graders did not have more academic

problems than normal-weight third-graders, overweight girls in the third grade had less self-control and more problem behaviors such as arguing and fighting (called "externalizing" behaviors) and sadness or loneliness (called "internalizing" behaviors) than normal-weight girls.

The immediate consequences of being overweight are often psychosocial (Federal Interagency Forum on Child and Family Statistics 2007). An elevated body mass index (BMI) can have a significant impact on test scores and school success. For girls, becoming overweight between kindergarten and the end of grade three was significantly associated with a reduction in test scores, teacher ratings of social-behavioral outcomes, and approaches to learning (Datar and Sturm 2005). Particularly in girls, appearance and weight gain are linked with perceptions of self-worth (Harter 1999).

Experts have suggested numerous factors for the increased obesity rate 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.

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

- Ear infections since kindergarten;
- Asthma;
- Diagnoses of disabilities and health conditions;
- Vision and hearing problems;
- Exercise/physical activities;
- Services for disabilities;
- Routine health and dental care;
- Health insurance coverage including Medicaid;
- 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). Information will be collected about the following:

- Parents' current employment status; and
- Occupation and industry.

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 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).

The following questions address this area:

- 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.

Food Sufficiency and Food Consumption

Adequate nutrition is critical for children's growth and development. Children of low income or poverty level families, 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 2007). 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/hunger in the household.

The items ask about:

- Ability to purchase food sufficient for family needs; and
- Frequency that parent and child are hungry.

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). Children's behavior and learning problems exhibited 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 will be measured longitudinally in the parent interviews in the ECLS-K:2011.

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

- Total family income for the year;
- Tuition paid for the child's education;
- Whether the family has had to leave their home because they could not afford it; and
- Housing.

C.2.2 Fall Second-Grade Parent Interview

C.2.2.1 Fall Second-Grade Parent Interview: Research Questions

By including a parent interview at the fall second-grade data collection point, the research questions that can be addressed with the ECLS-K:2011 will be expanded to include important topics associated with summer activities between first and second grade. Research questions related to the ECLS-K:2011 fall second-grade parent interview are shown below.

- PQ1: How do variations in children's developmental status at kindergarten entry relate to learning during the summer after first grade?
- PQ2: Does summer learning differ by child and family sociodemographic and contextual characteristics?
- PQ3: How does parent involvement in educational activities during the summer after first grade relate to children's learning?
- PQ4: How do children's summer activities relate to children's summer learning?
- PQ5: Are school practices such as providing summer school and summer book lists related to children's learning over the summer?

- PQ6: How does participation in nonparental care and education during the summer after first grade relate to children's summer learning?
- PQ7: Is tutoring over the summer associated with summer learning?
- PQ8: How does children's participation in services or therapy for special needs relate to summer learning?
- PQ9: How prevalent is hearing loss, both diagnosed and undiagnosed, among children in the early elementary grades?? How does hearing loss, both diagnosed and undiagnosed, vary by child and family social, demographic, and contextual characteristics at the beginning of the second-grade year? How does children's hearing relate to later success in school?

C.2.2.2 Fall Second-Grade Parent Interview: Construct Coverage

Child Characteristics

The child's sex and date of birth are collected in the fall second-grade parent interview if they are missing data from previous rounds.

- Child's sex; and
- Child's date of birth.

Parent Involvement in Education/Home Environment, Activities, and Cognitive Stimulation

As discussed above, parental involvement in education, educational activities in the home, and resources in the home have all been related to children's cognitive development. Studies have shown that reading in the home, doing literacy related activities, having educational resources and materials in the home, and taking children on outings to museums, libraries, and other places are related to children's achievement (Shumow 2010).

Home activities and outings would be expected to help children both during the school year and during the summer months when school is not in session.

Some research on summer learning has focused on which home activities contribute to summer learning beyond the effects of socioeconomic status (SES). In a study by Burkam, Ready, Lee, and LoGerfo (2004), ECLS-K data were used to examine social class differences in summer learning. Literacy activities during the summer had a small effect on summer gains in literacy beyond that of SES. Activities that were related beyond SES to summer gains in mathematics were using a computer for educational purposes, having a computer at home, and summer outings. Burkam et al. also found that summer outings were related positively to gains in children's general knowledge. Variables that were not found to have a relationship to summer learning gains in this study were frequency of television viewing, summer lessons, and frequency of engaging in mathematics activities over the summer.

The parent interview for the fall second-grade ECLS-K:2011 will allow researchers to build on these findings by including questions from the ECLS-K that have been shown to be related to summer learning. Some items (e.g., the frequency of mathematics activities) have been reworded to refer to a typical week during the summer (rather than the week after July 4th as they did in the ECLS-K). The question about book lists and summer assigned reading in the fall second-grade ECLS-K:2011 has been rephrased to ask whether the school provided a book list with particular books for the child to read over the summer. The parent is also asked how many books the child read from the list. Questions on other ways that parents provide resources to their children will also be included, such as trips to the library or bookstore, participation in story hours at the library or bookstore, summer camps, outings, and tutoring. Questions will also be included about how frequently children play outside and how many hours they watch television and play video games.

Because of the importance of children's literacy activities, having schools give children lists of books to read over the summer would also be expected to affect summer learning. However, researchers using ECLS-K data found that summer learning rates did not differ based on whether schools assigned summer book lists or reading assignments (Downey, Von Hippel, and Hughes 2008; Von Hippel 2009). One reason why book lists may not have predicted summer learning is that there was not a measure of whether the child actually read any books from the list. The ECLS-K:2011 fall second-grade parent interview will ask how many books the child read from the school-provided book list.

Another summer activity that is aimed to promote summer learning is summer school. The study by Burkam et al. (2004) found that children in the ECLS-K who attended summer school that was required or suggested by the school gained less in general knowledge than those who did not; however, the authors noted that this finding may be related to the difference between the topics covered in summer school and the topics on the ECLS-K general knowledge assessment. Burkam et. al (2004) also found no relationship between summer school (whether it was required or suggested by the school, or the parent decided to send the child to summer school) and summer gains in reading or mathematics. The authors noted that the lack of detectable differences may have to do with variation in the content of summer programs that was not measured in the study, such as how summer school programs were structured and how engaged children were in the programs.

The fall second-grade parent interview will ask about summer school in order to document how many children attend summer school and how many of those children were asked or required to attend by their school, or were enrolled at their parent's request. We will also ask about various instructional topics of the summer school program including English language instruction.

The following ECLS-K:2011 constructs covered in the fall second-grade parent questionnaire will address research questions about home activities and learning opportunities during the summer:

- Frequency of math, writing, and reading activities with the child;
- Frequency of the child's use of a computer for educational purposes;
- Frequency that the child played outside;
- Number of hours the child spent watching television;
- Number of hours the child spent playing video games;
- Number of times the child went to a library or bookstore during the summer;
- Participation in story hours at the library or bookstore;
- Whether the school provided a list of books for the child to read over the summer;
- The number of books the child read from the book list;
- Outings with the child;
- Whether the child attended summer school;
- Summer school instruction topics;
- English language instruction during summer school;
- Whether the school required or suggested summer school;

- Summer camps; and
- Tutoring.

Child Care

As noted in the section on child care for the spring-first grade, research has indicated that the quality of child care received during the early school years has implications for children's functioning in the elementary school grades.

Throughout the study, the ECLS-K:2011 will collect information on the number, consistency, and variety of formal before- and after-school care arrangements that the children experience. For the fall second-grade parent interview, questions will focus on the type of nonparental child care used most on a regular basis during the prior summer and the amount of care received. In addition, we will ask about whether summer camps were used as child care.

The ECLS-K:2011 will address child care through questions on the following:

- Participation in care and education programs during the past summer, by type of arrangement used most (i.e., relative, nonrelative, and center-based);
- The amount of time the child spent in care arrangements during the past summer; and
- Whether the child's participation in summer camp covered the hours when adult supervision was needed for him or her.

Child's Health and Well-Being

This section of the parent interview includes items about therapy services or special education programs children may have received over the summer. These items will allow analysis of the accessibility of services and special education programs for children who were identified as having disabilities and the use of these services by children who were not identified as having disabilities. The presence of disabilities is an important risk factor for children and is related to children's development and educational experiences in school. The ECLS-K:2011 data will allow for analysis of whether children with disabilities who receive services during the summer, such as speech or language therapy, occupational therapy, or psychological services, have better outcomes in school than children with disabilities who do not receive these services.

The parent interview will also include items about ear infection history since the spring of first grade and hearing impairment. As noted above, 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 ECLS-K:2011 will collect the following data addressing children's receipt of therapy services or participation in special education programs during the summer, and hearing:

- The child's receipt of therapy services or participation in a special education program over the summer;
- Speech or language therapy over the summer;
- Occupational therapy over the summer;
- Physical therapy over the summer;
- Psychological services over the summer;
- Other types of therapies over the summer; and
- Ear infections and hearing problems.

C.3 School Administrator Questionnaire

The ECLS-K:2011 will collect data in spring 2012 on school composition, policies, and practices from elementary school administrators in schools attended by ECLS-K:2011 sampled children. The child is the central unit of analysis, and school component data will be used to illuminate the school context of ECLS-K:2011 children and investigate the influence of school and administrator attributes on student outcomes. The school administrator questionnaire is contained in Appendix B. The instrument is very similar to the administrator questionnaires for the ECLS-K, with the exception that questions have been added to the "School Characteristics," "School Policies and Practices," and "School Climate" sections to detect school-level effects of provisions of the No Child Left Behind Act. In addition, questions have been added to the "School Policies and Practice," "School Programs for Particular Populations," and "Staffing and Teacher Characteristics" sections to address the extent to which schools are implementing a Response to Intervention (RtI) instructional model. RtI has become an increasingly popular educational approach used for the instruction of all students since the 2004 reauthorization of IDEA because the reauthorization allowed for the use of information about students obtained through RtI practices in identifying students with a specific

learning disability. The ECLS-K:2011 first-grade administrator questionnaire has two versions: one for schools without a completed administrator questionnaire in the kindergarten round and a more streamlined version for schools with a completed kindergarten instrument. 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 year relate to children's progress, especially 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?
- 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: How do differences in principals' background characteristics relate to other school characteristics and practices?
- 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?

C.3.2 School Administrator Questionnaire: Construct Coverage

The ECLS-K:2011 will collect data in spring 2012 on school characteristics, facilities and resources, community characteristics and school safety issues, school policies and practices, and school governance and climate from elementary school administrators in schools attended by ECLS-K:2011 sampled children. The child is the central unit of analysis, and school component data will be used to illuminate the school context of ECLS-K:2011 children and investigate the influence of school and administrator attributes on student outcomes.

School Characteristics, Facilities, and Resources

Several characteristics of elementary schools influence children's educational experiences and may be related to their learning outcomes. For example, school size, average daily attendance, and the numbers of students enrolling in or leaving the school during the school year may influence the stability in classroom membership experienced by an individual student. The number of days the school is in session sets bounds on the instructional time available to children and thus can influence learning outcomes. Grade span dictates the number of school transitions children must make between levels of schooling and the age range of their school peers. In a study using ECLS-K data, Ready and Lee (2007) found that the size of elementary schools, and of classes within schools, independently and negatively influenced children's learning in literacy and mathematics in both kindergarten and first grade. Farbman (2010) found that schools with expanded school years (that is, schools in which children attended more class days and/or hours per day) were positively related to student achievement.

The type of school attended has important 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 important opportunities to

contribute to the literature on effects of school type. Not only will analysts have information about sector, they will also know whether schools include magnet programs, if they are charter schools, and if they are schools of choice.

The composition of the student body will have important consequences for the types of programs and services that schools offer. The diversity of student populations with respect to social and economic background, preparation for school, need for particular services, and levels of proficiency in English has created a number of challenges for schools. 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 Oscar (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 individual's 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.

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.

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

Elementary schools tend to be smaller, more local, and have larger grade spans than either middle or high schools. The smaller catchment area of elementary schools,

combined with the longer grade span, suggests a long-term cumulative influence of the local neighborhood on both children and their schools. School-level characteristics are likely to parallel those for the local neighborhood (demographically, but also, in terms of attitudes, values, and expectations), allowing a long-term, mutual reinforcement less possible in larger, more diverse middle and high schools. The community characteristics items in the school questionnaire focus on school and neighborhood safety. Schools in crime-ridden areas may have to prioritize security within and around the school, preventing outdoor play periods or field trips around the neighborhood.

The neighborhood questions ask about the neighborhood in which the school is located. The data collected in these questionnaires can be combined with Census data that characterize the neighborhood in other ways (by racial composition, crime, income, employment, etc.).

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

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

- School type (public/private, affiliation, grades, magnet, etc.);
- Length of school year;
- Enrollment and attendance;
- Student demographics: race/ethnicity, language minority, catchment area, disability;
- School breakfast and lunch programs and the percentage of children eligible for free or reduced-price meals;
- State assessment data;
- Receipt of Title I and Title III funding;
- Services and programs/Title I;
- Services and programs/Title III;
- Availability of facilities and resources;
- Availability of computers;
- School status relative to Adequate Yearly Progress (AYP);
- Neighborhood problems (racial tensions, gangs, and crime);
- School safety;
- Measures taken to ensure school safety; and

- Recent changes at the school.

School Policies and Practices on Retention and School Uniforms

There are strong opinions on both sides of the issue of the efficacy of retention as a practice aimed at remediating the academic or social difficulties of young children. Schools and school districts mirror this uncertainty, some favoring the use of retention in certain circumstances, others having a "no retention" policy. Using data from the ECLS-K, Burkam, LoGerfo, Ready, and Lee (2007) found that most children who repeated kindergarten did not appear to receive any cognitive benefits. The authors suggested that current retention policies at kindergarten should be reconsidered. Hong and Yu (2007) found that any negative effect of repeating kindergarten faded by the fifth grade. The ECLS-K:2011 will collect data on retention policy and remediation and/or support practices at the school level and gather information about the number of children retained in each class from the teachers at each target grade level. These data will address a number of issues about retention: the effects of retention for individual children, the influence of the proportion of the class that has been retained, and school policies regarding retention in kindergarten.

Although there have been claims that school uniforms better facilitate learning and improve student academic performance, there is little evidence that directly addresses the issue (Yeung, 2009; Bodine, 2003). Two studies actually found negative relationship between adoption of a school uniform policy and student academic performance (Yeung, 2009; Brunsma & Rockquemore, 2003). However, the literature suggests that more quantitative research is needed to better understand the effect of school uniform policies (e.g., Yeung, 2009). The ECLS-K:2011 will allow researchers to use cross-cohort comparisons to more accurately evaluate the effectiveness of school uniform policy on academic outcomes.

The policy topics covered in the school administrator questionnaire include:

- School policy regarding uniforms; and
- Retention policies and practices.

Response to Intervention

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 & 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, math, 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 & Fuchs, 2006). Progress is regularly assessed and can be graphed or charted. Placement in different levels or "tiers" of services is data-driven.

Items related to RtI practices are being included in the school administrator question 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.

Topics related to RtI covered in the ECLS-K:2011 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;
- Levels of instruction/intervention provided;
- 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 (RtI model or other model).

School-Family-Community Connections

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

Parent-school communication may have a number of potential benefits for children's education. Parents as a visible presence in the school can reinforce the notion that education is a valued community goal. Parents can volunteer as classroom or school aides, freeing the teacher's time for instruction. Benefits may flow in the other direction as well. 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).

The ECLS-K:2011 items that collect information on school-family-community connections include:

- Programs or services for children at the school site;
- School-based programs or services for parents and families; and
- Parent involvement (e.g., volunteering, attending school events).

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 who conduct home visits), parenting education, and other efforts to involve parents in support of their children's success in school are among the topics included. These will provide data to address issues of 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 will provide current data about schools' efforts to serve the growing population of ELL children in U.S. schools. 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 first grade and the total school, the number of children receiving bilingual education or ELL/ESL services, and the types of 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 critical information about the range and effectiveness of options for special education delivery.

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

- Delivery of instruction to English Language Learners (ELL) 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 addressed on the teacher questionnaire):

- Total number of full- and part-time teachers, specialists, nurses, and paraprofessionals;
- Teacher mobility;
- The racial and ethnic composition of teaching staff; and
- School climate.

Principal Characteristics

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

Although literature exists on how leadership skills create conditions conducive to effective schools, few studies addresses the influence of variations in principals' characteristics, qualifications, and time use on student outcomes. The following ECLS-K:2011 variables might help explain why certain principals are especially successful:

- Principal's sex, age, and race/ethnicity;

- Principal's years at the study school;
- Principal's years in the role of principal;
- Principal's formal education;
- Principal's time allocation;
- Principal's use of a non-English language; and
- Principal'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 the children's classroom experiences which may relate to their social and academic development.

In addition, teachers will be asked to provide information on the study participants who are in their classes, completing one form for each ECLS-K:2011 child. The ECLS-K:2011 assessment battery provides an objective assessment of academic outcomes for the nationally representative sample of children. Teachers can provide another perspective, albeit a less objective perspective, on children's abilities and behavior because they spend a great deal more time with the children under far more routine conditions compared to ECLS-K:2011 assessors.

Because the ECLS-K:2011 collects a very broad range of variables and collects that information longitudinally, it is well-suited to study simultaneously the relationships of several variables and thus assess the relative importance of particular schooling variables compared to other schooling and family background variables on important outcomes.

The ECLS-K:2011 classroom component will ask teachers to provide information on classroom and student characteristics, instructional and evaluation practices, and their teaching qualifications and background.

C.4.1 Spring First-Grade General Classroom Teacher Questionnaires

C.4.1.1 Spring First-Grade General Classroom 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, race/ethnicity, and sex, and number of first-grade repeaters 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 school "readiness," sense of efficacy, job satisfaction, perceptions of school climate, their educational background, certifications, or teaching experience influence children's outcomes, on average or in interaction with children's sociodemographic backgrounds?
- TQ5: Do teachers' practices to involve parents result in higher levels of parent involvement?
- TQ6: How do teacher's relationships with individual students differ? What is the relationship of those differences to children's academic and social development?
- TQ7: What academic and social-emotional skills and behaviors (including activity level) do teachers report children having as they enter and go through school? Do these vary by family social background characteristics? How do these skills and behaviors change over time?
- TQ8: To what extent do teachers and other school staff use assessments to monitor students' progress on specific skills and identify those in need of interventions? What kinds of interventions are provided for struggling students and how much staff support and parent communication are there for these efforts?

C.4.1.2 Spring First-Grade General Classroom Teacher Questionnaires: Construct Coverage

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. Class size is usually considered important because of the constraints it places on teacher-child interactions. The time available for individuation and small-group supervision is reduced as class size increases, and this is widely believed to result in lower student achievement levels. Class size studies are quite prevelant but findings on outcomes related to various class sizes are not consistent. While education researchers and economists debate the benefits of broadscale class size reduction efforts relative to the high costs of implementation, most seem to agree on the benefits of targeted class size reduction policies for select subpopulations of students (Hanushek 2002; Krueger 2002; Rice 2002).

Additionaly, the demographic characteristics and ability-levels of the children in the class as a whole will be collected to support analyses that consider how a child's learning trajectory might be related to the characteristics of their classmates, which may or may not be similar to their own.

The effort to educate all children in regular education programs presents challenges to teachers at all levels of education. Children with particular needs 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 consequences of treatment differences.

In light of the growing number of ELL children in the country, the ECLS-K:2011 has included many items for the teacher about the instructional program for ELL children beyond what was used in the ECLS-K. The range of specific disabilities included under the special education label makes it particularly important to find out how schools and teachers accommodate children with disabilities. As more schools move toward inclusion of children with disabilities in regular classrooms, data evaluating the extent and efficacy of these efforts need to be collected and evaluated. The ECLS-K:2011 also asks teachers about the numbers of children who are frequently tardy or absent and to rate the overall behavior of their class.

Teachers will provide information about classroom and student characteristics including:

- Class time (full/half day, hours per day, days per week);
- Grade levels of classes the teacher teaches;
- Class demographics: class size, age distribution, race-ethnicity distribution, gender distribution, number repeating grade;
- Number of students who enter or leave during the school year;
- Number of language minority children and English-language learners (ELL) in the classroom;
- Number of children in the classroom receiving particular services or in special programs (e.g., special education services, a gifted and talented program, remedial services);
- Languages used in the classroom;
- Instruction for English language learners;
- Number of children above or below grade level in reading and mathematics;
- Numbers of children with disabilities;
- Number of children tardy or absent on an average day; and
- Overall behavior of the class.

Instructional Activities and Curricular Focus

Several studies suggest that large amounts of free play and unstructured time are negatively related to children's cognitive and language development (McCartney 1984; Ruopp, Travers, Glantz, and Goelen 1979). A large number of studies have emphasized the importance of "time on task" for student achievement (Greenwood 1991; Greenwood, Arreaga-Mayer, and Carta 1994; Wang, Haertel, and Walberg 1990). Children achieve more (as measured by achievement tests) in classrooms where a higher proportion of time is spent in academic instruction and where they are engaged in their work with few interruptions or few periods of unoccupied time (Crocker and Brooker 1986; Greenwood 1991; Powell 1980; Teddlie, Kirby, and Stringfield 1989). However, engaging in child-directed, imaginative play develops many social, emotional, and cognitive competencies necessary for children's school success including perseverance, patience, and the ability

to imagine the future (Singer and Singer 2006; Bergen and Fromberg 2009). Child development experts have noted that elementary school children have less time to engage in free play as some schools reduce recess time in favor of more instructional time and that this trend may have unintended negative academic consequences (e.g., Pelligrini 2005; Bergen and Fromberg 2009) and physical consequences (Datar and Strum 2004). Using ECLS-K data, Datar and Sturm found that only 16 percent of schools had physical education every day in kindergarten. Kindergartners spent almost an hour a week in physical education class (57 minutes), while first-graders on average spent 8.2 minutes more. The study showed that physical education programs helped girls who were overweight, or at risk for becoming overweight, avoid becoming obese.

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

In contrast to heterogeneous grouping, teachers may use within-class ability or achievement grouping to place students into smaller groups stratified by achievement, skill, or ability levels (Entwisle 1995; Karweit 1985; Lou et al. 1996; McCoach, O'Connell, and Levitt 2006; Slavin 1987). Compared with whole-class instruction, achievement grouping allows teachers to reduce heterogeneity and target instruction to match students' current level of knowledge and skills. Children's reading achievement group placement can determine the amount and type of instruction they receive; it can influence the group process through the amount of disruptions and interruptions; and it can affect teachers' and parents' views of children (Entwisle 1995; Slavin 1987). Opponents of achievement grouping express concerns that teachers may develop lower

expectations for children in low achievement groups, that children in low achievement groups will fall further behind their higher-achieving classmates and never catch up academically, and that children's self-esteem will be adversely impacted (McCoach, O'Connell, and Levitt 2006).

The following constructs are used to characterize teachers' curricular focus and how they organize their classes for instruction:

- Class activities outside of the regular class (library, lunch, and recess);
- Activity centers;
- Use of class time, by subject area;
- Use of achievement grouping, number of groups, and mobility between groups;
- Additional reading services; and
- Use of homework.

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

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

ECLS-K:2011 content coverage questions combine content that is included on the ECLS-K:2011 child assessment batteries with other skills delineated by the Common Core of

State Standards (corestandards.org), which have been adopted by 42 states and the District of Columbia, as of June 20, 2011. The ECLS-K:2011 teacher questionnaire measures what is taught, how often it is taught, and how it is taught (i.e., using what materials and activities).

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

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

Resources/Materials

Use of instructional aides allows for greater individuation of instruction and personal attention. The number of adults and the number of children have been combined in studies focusing on the consequences of teacher-to-student ratios for classroom management and student outcomes.

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

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

- Classroom aides (paid aides and volunteers);
- Availability, use, and adequacy of instructional materials; and
- Activity centers in the classroom.

Student Evaluation

Formal evaluations include grades, progress reports to parents, portfolios, and report cards. For these mechanisms, the most important variables are the criteria for grading, the frequency of feedback, and whether constructive 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.

The following are measures of child evaluation included in ECLS-K:2011:

- Methods of assessing children's progress; and
- Use of standardized tests.

Response to Intervention

While the school administrator questionnaire will provide information about school-wide implementation of Response to Intervention (RtI), the teacher questionnaire will include items targeted at practices and procedures in the first-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 (e.g., 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 first-grade classrooms;
- Level of reading and mathematics instruction provided in the classroom;
- Other staff 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;
- Completion of college courses addressing the use of data to inform the choice of academic and behavioral interventions;
- Use of computer-based individualized instruction in reading and mathematics; and
- Assistance and training from other staff for reading and mathematics instruction, delivery of behavior supports, and use of assessment data.

Parent Involvement

Research in recent years has increasingly emphasized the importance of parental involvement in explaining differences in student educational outcomes (Schneider and Coleman 1993; Hoover-Dempsey and Sandler 1997; Gonzalez-DeHass, Willems, and Holbein 2005). Constructs in this area, include the following:

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

Collegial Relations and Opportunities for Professional Development

Much of the recent reform literature has stressed the importance of collegial relations among teachers and of instructional leadership from the principal. One mechanism through which these variables can affect student outcomes is through the greater information available to teachers about alternative conceptions and methods of teaching, as well as details on particular children (Kilgore and Pendleton 1993). Discussions among colleagues can also lead to more clearly defined norms about what should be taught and how it should be taught (Bidwell and Bryk 1994; Talbert and McLaughlin 1994). Strong leadership by the principal is often cited as a key element of effective schools (Edmonds 1979).

Many teachers receive in-service training designed to improve teaching techniques and content knowledge. Although reliable information on the specific content of the programs would be difficult to collect, ECLS-K:2011 can find out about the kinds of in-service training in which teachers have participated.

Another aspect of the schedule is the time allocated for teachers to plan and prepare their daily lessons. Elementary teachers have traditionally had very limited planning time, a point of some concern as reform proposals call for additional work from teachers.

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

- Professional development activities; and
- School leadership.

Teachers' Views on Teaching, School Climate, and 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 ECLS-K:2011, teachers' autonomy, input into school policies, and sense of efficacy will be measured. These can then be used to address questions having to do with how these relate to teaching practices and ultimately to child outcomes, such as the following:

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

Teacher Background

Teacher demographic variables are mainly of interest 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.

Although studies have found substantial variation in teacher training at the preschool level, the differences tend to be smaller at the elementary level. Moreover, the differences that are found on such conventional yardsticks as highest degree earned and major field of study are at best weakly related to student cognitive outcomes (Hedges, Laine, and Greenwald 1994). Nonetheless, these indicators continue to be used as bases for salary differences and hiring decisions and are included in ECLS-K:2011.

The teacher's years of teaching experience is considered an important characteristic to schools but there is some research that suggests teacher experience has only weak systematic relationships with student test scores (Hedges, Laine, and Greenwald 1994).

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

- Teacher's sex, age, and race/ethnicity;
- Teacher's parents' education level;
- Teaching experience, by school and grade;
- Teacher's education, including degrees and credentials/licenses;
- Type of teaching certification held;
- Board certification; and
- "Highly Qualified Teacher" status.

Child-Specific: Enrollment Information

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

- Current grade level;
- Child's retention status;
- Length of time child has been enrolled in the classroom; and
- Number of school absences.

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

Teachers' reports of children's academic skills augment the information obtained in the direct cognitive assessments. Teachers provide ratings of the skills the child demonstrates in the classroom in literacy/reading, mathematics, and science. These cover many constructs that are not directly assessed including writing behaviors and science skills (e.g., forming explanations based on observations and explorations of scientific phenomena; communicating science information). Teachers will also rate 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, bullying, arguing, anger, depression, low self-esteem, impulsiveness, etc.); and learning dispositions or "approaches to learning" (e.g., curiosity, self-direction,

and inventiveness). These important social-emotional behaviors have been incorporated into a wide variety of research done with the ECLS-K data. For example, Ready, LoGerfo, Burkhan, and Lee (2005) found that girls had an advantage in literacy/reading skills in kindergarten and their more positive approaches to learning explained almost two-thirds of the advantage. External behavior problems are more prevalent in boys but this did little to explain the gender gap in reading literacy development in kindergarten.

The ECLS-K:2011 will also include a new measure of executive function. New research in the cognitive and neurological sciences is providing important insights into developmental processes associated with school readiness. Of particular interest is new research on the importance of executive function for learning and academic achievement (e.g., Blair and Razza 2007; Posner and Rothbart 2006). 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 math 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 functions, we have included “attention focusing and inhibitory control” to the teacher questionnaire.

Child-specific skills and behaviors covered in the child-level teacher questionnaires are:

- Child’s academic skills in language and literacy, math, and science;
- Social skills rating scale;
- Attention focusing and inhibitory control;
- Child’s physical activity level; and
- Child’s academic difficulties.

Child-Specific: 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 critical information about the range and effectiveness of various special services. These constructs include:

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

Child-Specific: Parent Involvement

Parental involvement in their children's education can have an important influence on school outcomes for children (Stallings and Stipek 1986; Hoover-Dempsey and Sandler 1997; Gonzalez-DeHass, Willems, and Holbein 2005). Teachers' report of 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 ECLS-K:2011 items that collect information on school-family-community connections from the teacher include:

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

Child-Specific: Teacher-Child Relationships

When the child-teacher relationship is warm and free from conflict, children are most apt to have academic and social success in elementary school and this is especially true for children who might otherwise be at risk of academic or social problems in school (Pianta and Steinberg 1992; Peisner-Feinberg et al. 2001).

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

The teacher will answer questions about:

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

C.4.2 Fall Second-Grade General Classroom Teacher Questionnaires

ECLS-K:2011 will collect information from the general classroom teachers of the sampled children during the fall second-grade data collection. Teachers will be asked to provide information on the study participants who are in their classes, completing one child-level questionnaire for each ECLS-K:2011 child. The ECLS-K:2011 assessment battery is designed to provide an objective assessment of academic outcomes for the nationally representative sample of children. Teachers can provide another perspective, albeit a less objective perspective, on children's academic abilities and behaviors because they spend a great deal more time with the children under far more routine conditions.

C.4.2.1 Fall Second-Grade General Classroom Teacher Questionnaires: Research Questions

- TQ1: What language and literacy skills and behaviors do teachers report children having as they enter second grade? Do these vary by family social background characteristics or educational activities over the summer between first and second grade? How do these skills and behaviors change over time?
- TQ2: What socioemotional skills and behaviors do teachers report children having as they enter second grade? Do these vary by family social background characteristics or educational activities over the summer between first and second grade? How do these skills and behaviors change over time?
- TQ3: What assignments do teachers report children having been given over the summer between first and second grade? Does completion of these summer assignments vary by family social background characteristics or educational

activities over the summer between first and second grade? How does completion of these summer assignments relate to children's skills and behaviors as they enter second grade?

- TQ4: In what reading and mathematics achievement groups do teachers report children are placed as they enter second grade? Do these vary by family social background characteristics or educational activities over the summer between first and second grade?

C.4.2.2 Fall Second-Grade General Classroom Teacher Questionnaires: Construct Coverage

Child-Specific: Evaluation of Child's Skills, Knowledge, and Behavior; Achievement Group Placement; Summer Assignments

Teachers' reports of children's academic skills augment the information obtained in the direct cognitive assessments. Teachers provide ratings of the skills the children demonstrate in the classroom in literacy and language. These ratings cover constructs that are not directly assessed in the assessments including oral expression and writing behaviors in second grade. Teachers will also rate 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, bullying, arguing, anger, depression, low self-esteem, impulsiveness); and learning dispositions or "approaches to learning" (e.g., curiosity, self-direction, inventiveness). These important socioemotional behaviors have been incorporated into a wide variety of research done with the ECLS-K data. For example, using both kindergarten and first grade data from the ECLS-K, Hair et al. (2006) found that children's language and cognition skills, health, and social skills in kindergarten were related to their scores on math and reading assessments. Children's language and cognition skills and socioemotional skills in kindergarten were also related to children's self-control and classroom motivation at the end of first grade.

In addition, the ECLS-K:2011 data on these practices will provide critical information about whether placement in achievement groupings changes from the end of the first-grade year to entry into second grade, and from the beginning of second grade to the end of second grade.

Child-specific skills and behaviors covered in the child-level teacher questionnaires are:

- Language and literacy skills;
- Social skills;
- Child's achievement group placement; and
- Child's summer assignment work.

C.5 Special Education Teacher Questionnaires

Like their regular classroom teacher counterparts, teachers who provide special education and related services to study participants will be asked to complete questionnaires in the spring first-grade data collection. The first questionnaire gathers data on teacher background, training, experience, and teaching assignment; the items are parallel to those on the teacher questionnaire. On the second questionnaire, teachers are asked to provide information on the study participants with whom they work, completing one form for each ECLS-K:2011 child who has an IEP.

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 or 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 or 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 backgrounds, 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 influence their interactions with students and student outcomes.

The following demographic, training, and experience variables 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;
- Total years teaching experience at the study school;
- Teacher's education, including degrees, credentials/licenses, and coursework;
- Teaching certification, credentials, and licenses;
- Teacher's parents' highest level of education;
- Teaching position and assignment;
- Locations in which the teacher delivers services within the school;
- Teacher's job satisfaction/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. 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 children's disabilities and receipt of special services and programs. Such information is best collected from the child's special education teacher because he or she is most familiar with the child's IEP plan and the types of services, accommodations, and assistive devices used with the child.

Part B of the special education teacher questionnaire asks the teacher to provide the following student-level information:

- Whether child is receiving special education services through an IEP;
- Teacher's review of child's records related to special education services;
- Child's disabilities;
- Goals contained in the child's IEP;
- Type and amount of special education services the child receives;
- Child's classroom placement;
- Teaching methods and materials used with child, including assistive technologies;
- 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.

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