

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

User's Manual for the ECLS-K:2011 Kindergarten Data File and Electronic Codebook, Public Version

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April 2015

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#### **DATA CONSIDERATIONS**

For many surveys, errors can be introduced from multiple sources including respondents, interviewers, survey questions, and post-data collection processes. The goal in survey research is to limit these errors as much as possible through the use of well-designed instruments, interviewer training programs, and technology, as well as by following best practices for editing and coding data. When reviewing the Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011) data, it may be helpful to keep in mind the following:

- The computer-assisted parent interview (CAI) was developed using Blaise, a commercial, off-the-shelf (COTS) software package that is recognized globally as the industry leader in computer-assisted interviewing software. The CAI guides the interview, reducing the potential for error. However, interviewers bring a human component to the survey and even highly experienced and well-trained interviewers can make errors. Additionally, errors in the design or programming of the parent interview are other potential sources of nonsampling error.
- The parent CAI was designed to attempt to anticipate most respondent answers and provided prompts for interviewers to probe respondents to ensure accurate responses when a response seemed contradictory to information provided earlier in the interview. Despite these best efforts to design a comprehensible instrument, respondents could still have provided inconsistent answers or may have misunderstood a question. As a result, anomalous findings that cannot always be explained may be present in the data.
- Several questions in the data collection instruments include an "other (specify)" field that allows for the recording of respondent answers that do not fit into one of the offered response categories. These "other (specify)" text responses were reviewed after data collection, and sometimes it was determined that the text response could be coded into one of the existing categories. In some instances, this upcoding of responses resulted in a case being eligible for certain questions that they were not actually asked during the interview, because the response option to which the text data were upcoded was not selected during the interview. This issue mainly affects data related to household composition and identification of household members' relationship to the study child. For example, in a few cases, fathers or male guardians were not correctly identified during the interview, but review of text responses showed there was a father/male guardian in the household. These cases would have been eligible for all the questions about fathers/male guardians had that male been correctly identified during the interview, but none of those questions were asked. In instances such as this, data for the case are coded -9 (not ascertained).
- Because respondents are free to refuse to respond to specific questions or to end or break off the interview at any time, there may be missing data within the parent interviews. Missing data due to a refusal to respond to a given question or due to a

breakoff are given a value of -9. There were 221 break-offs in the fall kindergarten parent interview and 664 break-offs in the spring kindergarten parent interview.

The ECLS-K:2011 school administrator and teacher questionnaires were designed as paper questionnaires that would be processed using computer scanning to read and enter the responses into a database. Although scanning errors using this technology are possible, they are rare due to systematic quality checks performed before and during the scanning of completed questionnaires. Many unusual, inconsistent, or seemingly implausible responses from administrators and teachers were reviewed during the data cleaning process and were confirmed as having been scanned accurately.

When preparing the kindergarten data for release, some data anomalies and errata were identified. The anomalies consist mostly of allowable responses that seem odd or inconsistent when viewed in conjunction with other responses. In most surveys some real or apparent inconsistencies are observed. As noted, these may result from real but unusual circumstances in the child's household, classroom or school, respondent misinterpretations of the questions asked, or other factors. The errata are mostly the result of errors in the design or programming of the parent interview that resulted in problems such as skipping questions that should have been asked or in the unavailability of an appropriate response option. Both data anomalies and errata are described in appendix A of this manual. The information on data anomalies, errata, and other considerations will be more easily understood, and is most useful, <u>after</u> the survey items or variables to be used in analyses have been identified.

#### **1. INTRODUCTION**

This manual provides guidance and documentation for users of the kindergarten (or base year) data of the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011). It begins with an overview of the ECLS-K:2011 in this chapter. Subsequent chapters provide details on the study data collection instruments and methods; the direct and indirect child assessment data; the sample design; weighting procedures; response rates; data file content, including composite variables; and the structure of the data file.

Data for the ECLS-K:2011 are released in both a restricted-use and a public-use version. This manual, which has been developed for public dissemination and use with the public version of the data, is almost identical to the manual released with the kindergarten restricted-use file.<sup>1</sup> Edits have been made to round or remove unweighted sample sizes that cannot be generated with the public-use file (PUF). Estimates such as means that are presented in the tables throughout the manual were calculated with the restricted-use file. Some estimates may not be able to be reproduced exactly with variables in the PUF because the variables have been masked to make them suitable for public release. Appendix C provides information about the ways in which data were masked on the PUF and includes tables that list all variables that have been masked or suppressed. Also, throughout this manual references are made to materials that are on the restricted-use CD-ROM. Public-release versions of available under "Data Products" on the ECLS-K:2011 these materials are website. nces.ed.gov/ecls/kindergarten2011.asp.

The ECLS-K:2011 is following a nationally representative sample of children from kindergarten through their elementary school years. It is a multisource, multimethod study that focuses on children's early school experiences. It includes interviews with parents, self-administered questionnaires completed by teachers and school administrators, and one-on-one assessments of children. During the kindergarten year, it also included self-administered questionnaires for nonparental before- and after-school care providers. The ECLS-K:2011 is sponsored by the National Center for Education Statistics (NCES) within the Institute of Education Sciences (IES) of the U.S. Department of Education.

<sup>&</sup>lt;sup>1</sup> Early Childhood Longitudinal Study, Kindergarten Class of 2010–11(ECLS-K:2011), User's Manual for the ECLS-K:2011 Kindergarten Data File and Electronic Codebook (NCES 2013-061) (Tourangeau et al. 2013).

#### 1.1 Background

The ECLS-K:2011 is the third and latest study in the Early Childhood Longitudinal Study (ECLS) program, which comprises three longitudinal studies of young children: the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K); the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B); and the ECLS-K:2011. The ECLS program is unprecedented in its scope and coverage of child development, early learning, and school progress, drawing together information from multiple sources, including school administrators, parents, teachers, early care and education providers, and children, to provide data for researchers and policymakers to use to improve children's early educational experiences and address important policy questions. The ECLS-K:2011 provides current information about today's elementary school children and data relevant to emerging policy-related domains not measured fully in the previous studies. Also, coming more than a decade after the inception of the ECLS-K, the ECLS-K:2011 allows for cross-cohort comparisons of two nationally representative kindergarten classes experiencing different policy, educational, and demographic environments.

The three studies in the ECLS program provide national data on children's developmental status at birth and at various points thereafter; children's transitions to nonparental care, early education programs, and school; and children's home and school experiences, growth, and learning. The ECLS program also provides data that enable researchers to analyze how a wide range of child, family, school, classroom, nonparental care and education provider, and community characteristics relate to children's development and to their experiences and success in school. Together these cohorts provide the range and breadth of data needed to more fully describe and understand children's education experiences, early learning, development, and health in the late 1990s, 2000s, and 2010s.

More information about all three of these studies can be found on the ECLS website (<u>http://nces.ed.gov/ecls</u>).

#### 1.2 Conceptual Model

The design of the ECLS-K:2011 is guided by a framework of children's development and learning that emphasizes the interrelationships between the child and family; the child and school; the family and school; and the family, school, and community. For this reason, the study collects information about children's experiences in many contexts and on a wide array of topics, including the characteristics

of the child and the child's family, community, nonparental care and education arrangements, and school and classroom environments. The study pays particular attention to the role that parents and families play in helping children adjust to formal school and in supporting children's education in various ways through the elementary grades. Although the focus of the ECLS-K:2011 is the child, multiple respondents are included in the study in order to obtain accurate and reliable data on the children's experiences in different environments.

#### **1.3** Periods of Data Collection

The ECLS-K:2011 is following children from kindergarten (the 2010–11 school year) through the 2015–16 school year, when most of the children are expected to be in fifth grade (Exhibit 1-1). The sample includes both children in kindergarten for the first time and kindergarten repeaters. Although the study refers to later rounds of data collection by the grade the majority of children are expected to be in (that is, the modal grade for children who were in kindergarten in the 2010–11 school year), children will be included in subsequent data collections regardless of their grade level.<sup>2</sup> During the 2010–11 school year, when both a fall and a spring data collection were conducted, approximately 18,000 kindergartners from about 970 schools and their parents, teachers, school administrators, and before- and after-school care providers participated in the study. Fall and spring data collections were also conducted for the first- and second-grade rounds of data collections for first and second grade were conducted with approximately one-third of the sample of children who participated in the base-year data collection. For third through fifth grade, spring data collections with the entire sample of children who participated in the base-year data collection are planned.<sup>3</sup>

<sup>&</sup>lt;sup>2</sup> Children may not be in the modal grade due to retention in a grade or promotion to a higher grade ahead of schedule.

<sup>&</sup>lt;sup>3</sup> Beginning with fall first grade, children who move away from their original base-year schools are sampled for follow-up. Approximately 50 percent of movers will be subsampled out and will stay out of the sample unless they move back into the original sample school. The subsample rate will stay at 50 percent for first and second grade but may be increased in third grade if it is necessary to increase the sample size due to unexpected low response rates.

School year	Grade <sup>1</sup>	Data collections <sup>2</sup>
		Fall 2010
2010-11	Kindergarten	Spring 2011
		Fall 2011
2011-12	First grade	Spring 2012
		Fall 2012
2012–13	Second grade	Spring 2013
2013–14	Third grade	Spring 2014
2014–15	Fourth grade	Spring 2015
2015-16	Fifth grade	Spring 2016

Exhibit 1-1. Planned data collection schedule: School years 2010–11 through 2015–16

<sup>T</sup>Grade indicates the modal grade for children who were in kindergarten in the 2010–11 school year. After the kindergarten rounds of data collection, children will be included in data collection regardless of their grade level.

<sup>2</sup>All but two rounds of data collection include the entire sample of children. The fall first-grade data collection includes approximately one-third of the total ECLS-K:2011 sample of children. The fall second-grade data collection includes the same subsample selected for fall first

grade. SOURCE: U.S. Dopartment of Education. Institute of Education Sciences. National Conter for Education Statistics. Early Childhood Longituding

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011).

#### 1.4 Study Components

The emphasis placed on measuring children's experiences within multiple contexts and development in multiple domains has critical implications for the design of the ECLS-K:2011. Data are collected on a wide array of topics at a broad level rather than on a select set of topics in more depth. The design of the study includes the collection of information from the children, their parents or guardians, their teachers, their schools, and their before- and after-school care providers as described here:

- Children are administered various assessments containing age- and grade-appropriate items measuring important cognitive skills and knowledge in each round of data collection. The untimed assessments are administered directly to the sampled children, one-on-one, by a trained assessor. The kindergarten child assessment measured reading (fall and spring), mathematics (fall and spring), and science (spring) knowledge and skills, as well as executive function (fall and spring). Also in the kindergarten year, Spanish-speaking English language learner (ELL) children who did not achieve a minimum score on assessment items measuring their basic English language skills had their Spanish early reading skills assessed. In addition to the cognitive components, all children had their height and weight measured in the fall and spring.
- Parents or guardians are an important source of information about the study child, the child's family, and the child's home environment. Information is collected from parents in each data collection round using computer-assisted interviews (CAIs). The parent interview asks about family structure, family literacy practices, parental

involvement in school, nonparental care arrangements, household composition, family income, parent education level, and other demographic indicators. Parents are also asked to report on their children's health, socioemotional well-being, and disability status.

- **Teachers** provide information about the children they teach, the children's learning environment, and themselves. More specifically, they are asked about their own backgrounds, teaching practices, and experience. They are also asked to provide information on the classroom experiences for the sampled children they teach and to evaluate each sampled child on a number of critical cognitive and noncognitive dimensions. General classroom teachers completed self-administered questionnaires in fall and spring.
- **Special education teachers** and service providers of sampled children who have an Individualized Education Program (IEP) are asked to provide information on the nature and types of services provided to the children, as well as on their own background and experience. Information is collected from special education teachers via self-administered questionnaires during spring data collection.
- School administrators are asked to provide information on the physical, organizational, and fiscal characteristics of their schools, and on the schools' learning environment and programs. School administrators also provide information on their own background and experience. Information is collected from school administrators via self-administered questionnaires during spring data collection.
- The kindergarten **before- and after-school care (BASC)** component collected important information about children's environments and early learning experiences in nonparental care with regular before- or after-school care providers. Adults other than the child's parents/guardians who cared for the study child for at least 5 hours per week were asked to provide information such as the location where care was provided, children's activities while in care, characteristics of other children in care, and their own background and experience.

More detailed information about each of these study components can be found in chapter 2.

#### 1.5 ECLS-K:2011 Data File

The ECLS-K:2011 kindergarten data file includes the base-year data encompassing both the fall kindergarten and spring kindergarten rounds of data collection. In preparing data files for release, NCES takes steps to minimize the likelihood that individual schools, teachers, parents, or students participating in the study can be identified. Every effort is made to protect the identity of individual respondents. The process of preparing the files for release includes a formal disclosure risk analysis. Small percentages of values are swapped across cases with similar characteristics to make it very difficult

to identify a respondent with certainty. The modifications used to reduce the likelihood that any respondent could be identified in the data do not affect the overall data quality.

Analysts should be aware that the ECLS-K:2011 data file is provided as a *child-level* data file containing one record for each child participating in the kindergarten-year data collection. The record for each child contains information from each of the study respondents described above: the child, as well as his or her parent, teacher, school administrator, and (if applicable) before- and after-school care provider. However, the ECLS-K:2011 data do generalize to the population of schools educating kindergartners or kindergarten-age children; an analyst interested in a school-level analysis can create a school-level file using the restricted-use kindergarten data file. School-level analysis is possible because schools were a sampling point; later rounds of data collection will not be representative of schools with higher grades. Appendix B to this manual has more information about how to create a school-level file.

The ECLS-K:2011 kindergarten data are provided in an Electronic Codebook (ECB) that permits analysts to view the variable frequencies, tag selected variables, and prepare data extract files for analysis with SAS, SPSS, or Stata.

#### 1.6 Contents of Manual

The remainder of this manual contains more detailed information about the topics discussed briefly in this chapter, including the data collection instruments and methods (chapter 2) and the direct and indirect child assessments (chapter 3). It also describes the ECLS-K:2011 sample design and weighting procedures (chapter 4), response rates and bias analysis (chapter 5), and data preparation procedures (chapter 6). In addition, this manual explains the structure of the kindergarten data file and the composite variables that have been developed for the file (chapter 7) and describes how to install and use the ECB (chapter 8). The ECB contains unweighted frequencies for variables included in the file.

Additional information about the ECLS-K:2011 study design, methods, and measures can be found in *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), Kindergarten Year Methodology Report* (Tourangeau et al. forthcoming) and *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), Kindergarten Psychometric Report* (Najarian et al. forthcoming). Also, as noted earlier, additional information about the ECLS program can be found online at <u>http://nces.ed.gov/ecls</u>.

#### 2. DATA COLLECTION INSTRUMENTS AND METHODS

This chapter describes the data collection instruments used in the Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011) kindergarten year collection, including the child assessment, parent interview, school administrator questionnaire, teacher questionnaires, and before- and after-school care provider questionnaires. Major differences in the study instruments and data collection procedures for the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K) and the ECLS-K:2011 are discussed. This chapter also provides an overview of the data collection methods employed in the ECLS-K:2011 kindergarten year including staff training, district and school recruitment, child assessment, parent interviewing, and the distribution and collection of school administrator, teacher, and before- and after-school care provider self-administered questionnaires.

#### 2.1 Data Collection Instruments

As noted in chapter 1, the design of the ECLS-K:2011 and its survey instruments is guided by a conceptual framework of children's development and learning that emphasizes the interaction among the various environments in which children live and the resources within those environments to which children have access. A comprehensive picture of children's environments and experiences is created by combining information from children themselves, their parents, their school administrators, their teachers, and their before- and after-school care providers.

Exhibit 2-1 presents a listing of the ECLS-K:2011 data collection instruments and the rounds of data collection in which they were used. The instruments for the kindergarten year are included on the ECLS-K:2011 CD-ROM and are available online at <u>http://nces.ed.gov/ecls</u>, with the exception of copyrighted materials or items adapted from copyrighted materials that cannot be publicly distributed without copyright holder and NCES permission. Study instruments and items for which copyright permissions are needed are discussed further in section 2.1.7. More information on the assessments can be found in chapter 3.

Instrument	Fall kindergarten	Spring kindergarten
Child assessment		
Language screener	Х	Х
Reading	Х	Х
Mathematics	Х	Х
Executive function	Х	Х
Science		Х
Height and weight	Х	Х
Parent interview	Х	Х
Teacher questionnaires		
Teacher-level	Х	Х
Teacher-level (new teacher supplement)		Х
Child-level	Х	Х
Special education teacher questionnaires		
Teacher-level		Х
Child-level		Х
School administrator questionnaire		Х
Before- and after-school care questionnaires		
Center director		Х
Center-based care provider		Х
Home-based care provider		Х
Child-level		Х

Exhibit 2-1.	Instruments used in the ECLS-K:2011 kindergarten rounds of data collection: School year
	2010–11

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

The data from the ECLS-K:2011 instruments can be used to answer a wide variety of research questions about how home, school, and neighborhood factors relate to children's cognitive, social, emotional, and physical development. The following sections describe the major topics covered in each instrument.

#### 2.1.1 Direct Child Assessment

The fall and spring kindergarten rounds of the ECLS-K:2011 data collection included a direct child assessment with cognitive<sup>1</sup> and physical measurement components. The assessment was

<sup>&</sup>lt;sup>1</sup> The selection and testing of items for the cognitive domains is described in detail in *Early Childhood Longitudinal Study, Kindergarten Class of* 2010–11 (ECLS-K:2011), Kindergarten Psychometric Report (Najarian et al. forthcoming).

administered directly to the sampled children on an individual basis by trained and certified child assessors and took about 60 minutes per child. Responses were entered by the assessors into a computerassisted interviewing (CAI) program.

Two-stage assessment. The kindergarten direct cognitive assessment included two-stage assessments for reading and mathematics. For each assessment, the first stage was a routing section that included items covering a broad range of difficulty. A child's performance on the routing section determined which one of three second-stage tests (low, middle, or high difficulty) the child was administered. The second-stage tests varied by level of difficulty so that a child would be administered questions appropriate to his or her demonstrated level of ability for each of these cognitive domains. The purpose of this adaptive assessment design was to maximize accuracy of measurement and minimize administration time.

Language screener and routing for children whose home language was not English.<sup>2</sup> The components of the ECLS-K:2011 assessment administered to children who spoke a language other than English at home depended on the children's performance on a language screener used in the fall and spring data collections. The screener consisted of two tasks from the Preschool Language Assessment Scale (preLAS 2000).<sup>3</sup> The "Simon Says" task required children to follow simple, direct instructions given by the assessor in English. The "Art Show" task was a picture vocabulary assessment that tested children's expressive vocabulary. All children, regardless of home language, were administered the language screener as the first component of the direct cognitive assessment. For children whose home language was English, the screener primarily served as a warm-up or practice for the rest of the assessment since the items were of low difficulty. While the screener also served as a warm-up for children whose home language was one other than English, it also determined whether the children understood English well enough to receive the full direct child assessment in English.

All children also received the first 18 items of the reading assessment in English, regardless of their home language or performance on the *preLAS* tasks. These items, plus two items from the preLAS "Art Show" task (a total of 20 items), make up the section of the reading assessment referred to as the English basic reading skills (EBRS) section because they measure such skills. Once the EBRS items were administered, the cognitive assessments in English ended for children whose home language

<sup>&</sup>lt;sup>2</sup> Before the assessments were conducted, data collection staff obtained information about the children's home language from school records, the school staff member assigned to coordinate study activities (referred to as the school coordinator), or the child's teacher. Because parents often were not interviewed before children were assessed in school, parent report of home language could not be used to determine assessment routing. <sup>3</sup> Duncan, S.E. and De Avila, E. A., preLAS 2000 Cue Picture Book English Form C, CTB/McGraw-Hill Companies, Inc., 1998.

was not English and who did not achieve at least a minimum score on the language screener.<sup>4</sup> Spanishspeaking children who did not achieve at least the minimum score on the screener were then administered a short reading assessment in Spanish that measured Spanish early reading skills (SERS), as well as the mathematics and executive function assessments that had been translated into Spanish. Children whose home language was one other than English or Spanish and who did not achieve at least the minimum score on the screener were not administered any of the remaining cognitive assessments beyond the EBRS. All children had their height and weight measured.

Exhibit 2-2 illustrates how the specific kindergarten assessments taken by children depended on their performance on the language screener and on their home language.

**Cognitive domains.** The cognitive assessment focused on three domains in the fall kindergarten round: reading (language use and literacy), mathematics, and executive function (working memory and cognitive flexibility). In the spring kindergarten collection, the science domain was added to the assessment. For the reading, math, and science assessments, assessors asked the children questions related to images (such as pictures, letters of the alphabet, words, or short sentences for reading or numbers and number problems for mathematics) that were presented on a small easel. Children could respond by pointing or telling the assessor their answers. They were not required to write their answers or explain their reasoning. The executive function component included a card sort task that required children to sort cards into trays, and a numbers reversed task for which children provided verbal responses (both of these tasks are discussed further below). A brief description of the components of the cognitive assessment follows.

**Reading (language and literacy).** The reading assessment included questions measuring basic skills (print familiarity, letter recognition, beginning and ending sounds, rhyming words, word recognition), vocabulary knowledge, and reading comprehension. Reading comprehension questions asked the child to identify information specifically stated in text (e.g., definitions, facts, supporting details), make complex inferences within and across texts, and consider the text objectively and judge its appropriateness and quality.

<sup>&</sup>lt;sup>4</sup> The *pre*LAS publishers recommended using a cut score of 16. Children had to achieve a score of 16 or higher to be routed through all of the assessments in English.

All children **English language screener** (preLAS) English basic reading skills (EBRS) (Part 1 of the reading routing section) Does the child No speak a language other than English at home?<sup>1</sup> Yes Continue with the assessments in Continue with the Does the Yes Did the child No Yes **Spanish:** assessments in child speak pass the **English:** Spanish? screener? Reading (SERS) Mathematics Reading Executive Mathematics function **Executive function** Science (spring only) No Height and Weight

Exhibit 2-2. Routing path for the direct child assessment in the ECLS-K:2011 kindergarten year

<sup>1</sup> Home language was obtained from school records, the school staff member assigned to coordinate study activities (referred to as the school coordinator), or the child's teacher. Because parents often were not interviewed before children were assessed in school, parent report of home language could not be used to determine assessment routing.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

As noted above, the first 18 items in the reading assessment and two *pre*Las items constitute a measure of English basic reading skills (EBRS) that all children received regardless of their performance on the language screener. The EBRS functioned as the first set of 20 items in the 40-item routing test. Children who got at least 10 of the 20 EBRS items correct were administered the second set of 20 items in the routing section. Scores on the routing section determined which second-stage test (low, middle, or high) the child received. Spanish speakers who routed out of the English cognitive assessment after the EBRS were administered an assessment that measured Spanish early reading skills (SERS). The SERS consisted of 31 items included in the English reading assessment (in the low or middle secondstage test) that had been translated into Spanish.

**Mathematics.** The mathematics assessment was designed to measure skills in conceptual knowledge, procedural knowledge, and problem solving. The assessment consisted of questions on number sense, properties, and operations; measurement; geometry and spatial sense; data analysis, statistics, and probability; and patterns, algebra, and functions. A set of 18 routing items was administered to all children, and the children's score on these items determined which second-stage test (low, middle, or high difficulty) the child received. Most text that the children could see on the easel pages, for example, question text for word problems or graph labels, was read to them to reduce the likelihood that their reading ability would affect their mathematics assessment performance.<sup>5</sup> Paper and pencil were offered to the children to use for the mathematics assessment, and children were periodically reminded of their availability as part of the assessment protocol. Each of the second-stage mathematics assessment tests also contained several items for which wooden blocks were available for children to use in solving the problems. However, they were not required to the use blocks. Spanish-speaking children who did not pass the language screener completed the full mathematics assessment administered in Spanish.

**Executive function.** The executive function component of the cognitive assessment obtained information on important cognitive processes associated with learning: cognitive flexibility and working memory. To measure cognitive flexibility, children were administered the Dimensional Change Card Sort (DCCS) (Zelazo 2006). In this task, children were asked to sort a series of 22 picture cards into one of two trays according to different rules. Each card had a picture of either a red rabbit or a blue boat; one tray had a picture of a red boat and the other had a picture of a blue rabbit. Children were asked to sort the cards first by color and then by shape. If the child correctly sorted four of the six cards by shape, then he or she moved on to a third sorting rule: if the card had a black border, the child was to sort by color; if the card did not have a black border, the child was to sort by shape.

<sup>&</sup>lt;sup>5</sup> Numbers were read to the child only when the question text referenced the number.

After the card sort, children were administered the Numbers Reversed task. In this task, they were asked to repeat increasingly long strings of orally presented numbers in reverse order. When children responded incorrectly to a certain number of items in a row, the task ended so that they would not be asked to continue at a level that was too difficult. Spanish-speaking children who did not pass the language screener completed the full executive function assessment administered in Spanish.

Science (spring kindergarten). The science domain was added to the cognitive assessment in the spring kindergarten data collection. This assessment domain included questions about physical sciences, life sciences, environmental sciences, and scientific inquiry. The science assessment included 20 items that all children who were administered the science assessment received; a two-stage assessment was not used for this domain. The questions, response options, and any text the child could see on the easel pages (for example, graph labels) were read to the children to reduce the likelihood that their reading ability would affect their science assessment score.

**Height and weight measurement.** In addition to the cognitive domains described above, children's height and weight were measured at each data collection point. Assessors recorded the children's height (in inches to the nearest quarter inch) and weight (in pounds to one decimal place). A Shorr board (a tall wooden stand with a ruled edge, used for measuring height) and a digital scale were used to obtain the measurements, which were recorded on a height and weight recording form and then entered into a laptop computer by field staff.<sup>6</sup> Each measurement was taken and recorded twice to ensure reliable measurement.

## 2.1.2 Parent Interview

The children in the ECLS-K:2011 come from a broad range of family backgrounds and communities. The parent interviews conducted in fall and spring of kindergarten addressed many important topics. Across the two waves of kindergarten data collection, parents provided information about parent involvement in the child's school; school practices; out-of-school activities; children's nonparental care arrangements the year before kindergarten and during the kindergarten year; the home environment, including family practices such as rules and routines, food security, and discipline; parent and child health and well-being, including the child's level of physical activity and child disabilities; child behavior; household composition and family structure; child and parent characteristics, including the

<sup>&</sup>lt;sup>6</sup> The Shorr board is manufactured by Weigh and Measure, LLC, and is model ICA. The digital scale was Seca Bella model 840.

primary language spoken in the home, parent education, and parent employment; and the involvement of nonresident parents.

Exhibit 2-3 shows the content areas included in the parent interview in the fall kindergarten and spring kindergarten rounds. While many of the same topics were addressed in both fall and spring, there were differences in the specific questions asked within each topic. For example, questions in the parent involvement section in the fall parent interview asked what parents thought children should know or be able to do to be ready for kindergarten, whereas questions in that section in the spring parent interview asked about parent involvement with the school. Some questions were asked at both data collection points, but some were asked in the spring only if the information had not been obtained during a fall parent interview. This might occur because the parent respondent failed to answer a question within an otherwise complete interview or because a fall interview was not conducted. Some sections or topics were included in only one round of kindergarten data collection to limit respondent burden. Other information (e.g., household composition) was confirmed during the spring interview and updated if necessary. The fall and spring parent interviews are provided in appendix A of the CD-ROM. The average length of the parent interview was approximately 45 minutes in both fall and spring kindergarten.

The respondent to the parent interview, which was conducted by telephone for most cases, was usually a parent or guardian in the household who identified himself or herself as the person who knew the most about the child's care, education, and health. During the spring kindergarten data collection round, interviewers attempted to complete the parent interview with the same respondent who answered the parent interview in the fall kindergarten round, though another parent or guardian in the household who knew about the child's care, education, and health was selected if the fall respondent was not available.

The parent interview was fully translated into Spanish before data collection began and could be administered by bilingual interviewers if parent respondents preferred to speak in Spanish. Because it was cost prohibitive, the parent interview was not translated into other languages. However, interviews could be completed with parents who spoke other languages by using an interpreter who translated from the English during the interview.

	Fall	Spring
Parent interview content	kindergarten	kindergarten
Child care arrangements, currently and in the year before kindergarten <sup>1</sup>	Х	Х
Child demographic characteristics	Х	Х
Child disabilities and services		Х
Child health and well-being	Х	Х
Child social skills, problem behaviors, and approaches to learning	Х	Х
Country of origin of parent and child		Х
Family rules and disciplinary practices		Х
Family structure	Х	Х
Food sufficiency and food consumption		Х
Historical household roster	Х	
Home environment, activities, resources, and cognitive stimulation	Х	Х
Home language <sup>1</sup>	Х	Х
Involvement of nonresident parent	Х	Х
Neighborhood safety		Х
Parent characteristics	Х	Х
Parent-child relationship	Х	Х
Parent education <sup>1</sup>	Х	Х
Parent employment	Х	
Parent income and assets		Х
Parent involvement with the child's education	Х	Х
Parent marital history <sup>1</sup>	Х	Х
Parent respondent's psychological well-being and health		Х
Parental beliefs and expectations related to education	Х	
Parental discipline, warmth, and emotional supportiveness		Х
Welfare and other public transfers	Х	X

# Exhibit 2-3. Parent interview topics, by round of data collection in the ECLS-K:2011 kindergarten year: School year 2010–11

<sup>1</sup> Asked in spring kindergarten if missing from the fall data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

## 2.1.3 General Classroom Teacher Questionnaires

In fall and spring of the kindergarten year, the general classroom teachers of children in the study completed self-administered hard-copy teacher-level questionnaires about themselves and their classrooms, as well as child-level questionnaires about each child in their classroom who was participating in the ECLS-K:2011.<sup>7</sup> The purpose of the teacher-level questionnaire was to collect information about children's classroom experiences that may relate to children's academic and social development. The questionnaire included questions about classroom and student characteristics, class schedules, class materials, instructional practices, and curricula. It also included questions on the teacher's background, teaching experience, and attitudes about teaching and the school climate. The

<sup>&</sup>lt;sup>7</sup> A child was considered to be participating if he or she completed a child assessment or had a parent who completed the parent interview.

purpose of the child-level questionnaire was to collect information specifically about each study child's experiences and performance in the classroom. It included questions about the teacher's assessment of the child's academic and cognitive abilities, behaviors, social skills, and relationship with the teacher, as well as information about parents' involvement at school and program placements and services that each child may have received. During the spring data collection round, a supplementary questionnaire was distributed to teachers who were new to the ECLS-K:2011 in the spring collection or who had not responded in the fall data collection.<sup>8</sup> The supplementary questionnaire included the background questions that had been asked in the fall teacher-level questionnaire; these items were not asked again in the spring for teachers who responded in the fall.

Exhibit 2-4 shows the topics addressed in the teacher-level questionnaires in the fall and spring kindergarten rounds. In general, the fall teacher-level questionnaire focused on classroom and student characteristics and on teacher background, education, and experience. The spring instrument focused on instructional activities, content coverage, resources and materials, teacher evaluation and grading practices, and parent involvement.

Exhibit 2-4.	General classroom teacher teacher-level questionnaire topics, by round of data collection
	in the ECLS-K:2011 kindergarten year: School year 2010–11

Teacher-level questionnaire content	Fall kindergarten	Spring kindergarten
Classroom and student characteristics	<u> </u>	<u> </u>
Instructional activities and curricular focus		Х
Instruction for English language learners	Х	Х
Content coverage for language arts, mathematics, and science		Х
Resources/materials		Х
Teacher evaluation and grading practices		Х
Parent involvement		Х
Collegial relations and opportunities for professional development	Х	Х
Teacher's views on teaching, school climate, and environment	Х	Х
Teacher's experience, education, and background	Х	
Teacher supplement for teachers new to the study in the spring: Teacher's background		Х

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Exhibit 2-5 shows the topics addressed in the fall and spring kindergarten child-level questionnaires by data collection period. During both the fall and spring, teachers reported information about the type of class in which the child was enrolled and rated each study child's skills and behavior. In the spring, teachers also reported on any services the child might have received, specialized programs in

<sup>&</sup>lt;sup>8</sup> Some teachers were new to the study as a result of children changing schools or classes, or changes in teacher assignments. Other teachers were nonrespondents during the fall data collection but participated in the spring.

which the child might have participated, their specific relationship with each study child, and each study child's parents' involvement.

Exhibit 2-5.	General classroom teacher child-level teacher questionnaire topics, by round of data
	collection in the ECLS-K:2011 kindergarten year: School year 2010-11

Child-level teacher questionnaire content	Fall kindergarten	Spring kindergarten
Student and enrollment information	Х	Х
Specialized services and programs		X
Language and literacy skills and knowledge	Х	Х
Mathematical thinking skills and knowledge	Х	Х
Science skills and knowledge	Х	
Social skills	Х	Х
Approaches to learning	Х	Х
Children's behavior	Х	Х
Student-teacher relationship		Х
Parent involvement		Х

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

# 2.1.4 Special Education Teacher Questionnaires

The special education teacher questionnaires were completed in spring kindergarten for each participating child with an Individualized Education Program (IEP) or Individualized Family Service Plan (IFSP). The respondent to the questionnaire could have been a staff member identified as the child's special education teacher, a related service provider if the child was not taught by a special education teacher, or the child's general classroom teacher if that teacher provided all of the child's education and services required by an IEP. As with the general classroom teacher questionnaires, two self-administered hard-copy instruments were used: one to collect information on the special education teacher's background and experience (a teacher-level questionnaire) and one to collect information on the study child's disabilities, placement, and services received (a child-level questionnaire). The teacher-level questionnaire addressed the following:

- Teacher characteristics;
- Teacher education and experience; and
- Teacher position, assignment, and caseload.

The child-level special education teacher questionnaire addressed the following:

- Current and prekindergarten services received through an IEP;
- Child's disabilities (all disabilities and primary disability);
- Goals of the child's IEP and extent to which the goals had been met;
- Classroom placement;
- Special education teacher's communication with other teachers and the child's parents; and
- Expectations regarding general education goals.

# 2.1.5 School Administrator Questionnaire

The school administrator questionnaire was a hard-copy paper questionnaire completed by the school principal/administrator or his or her designee during the spring data collection round. It addressed the following topics:

- School characteristics, facilities, and resources;
- School policies and practices;
- School-family-community connections;
- Federal policies and programs;
- School programs for particular populations (language minority children and children with special needs);
- Staffing and teacher characteristics; and
- School administrator characteristics and background.

# 2.1.6 Before- and After-School Care (BASC) Questionnaires

Before- and after-school caregivers identified in the fall kindergarten parent interview were asked to complete self-administered hard-copy questionnaires for the before- and after-school care (BASC) component of the ECLS-K:2011 during the spring kindergarten round. The BASC instruments asked about the characteristics of the child's care arrangement, as well as the provider's background and

professional development activities. The provider with whom the child spent the most time on a weekly basis was the respondent for the care provider questionnaire, as well as for a child-level questionnaire with questions specifically about the study child. There were two versions of the care provider questionnaire, one for providers in center-based arrangements and one for providers in home-based arrangements. Some questions asked in each questionnaire were identical to one another but others were tailored to the care setting. For center-based care arrangements, the center director also was asked a brief set of questions about the center setting and staffing in a center director questionnaire. Thus, there were four BASC instruments: a home-based care provider questionnaire, a center-based center director questionnaire, and a child-level questionnaire that was used in both home- and center-based care settings. The data from these instruments can be used in conjunction with the data obtained in the other ECLS-K:2011 instruments and the direct assessments to answer a wide variety of research questions about how home, school, before- and after-school care settings, and neighborhood factors relate to children's cognitive, social, emotional, and physical development.

The BASC questionnaires addressed the following specific content areas:

- Center director questionnaire
  - Program information;
  - Staffing;
  - Program services; and
  - Opportunities for professional development.
- Center-based care provider questionnaire
  - Caregiver beliefs, practices, and attitudes about caregiving;
  - Caregiver characteristics; and
  - Caregiver background.
- Home-based care provider questionnaire
  - Program information;
  - Program services;
  - Caregiver beliefs, practices, and attitudes about caregiving;
  - Caregiver characteristics; and
  - Caregiver background.

- Child-level questionnaire
  - Care of study child;
  - Number and characteristics of other children in care; and
  - Learning environment.

# 2.1.7 Copyrighted Materials

A number of the measures used in the ECLS-K:2011 assessment and questionnaires are taken directly or adapted from copyrighted instruments. Exhibit 2-6 lists these copyrighted instruments and identifies the copyright holder for each.

Exhibit 2-6. Copyright-protected instruments in ECLS-K:2011 kinderga
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Instrument	Publisher/copyright holder		
Direct child assessment			
Bateria III Woodcock Munoz - Spanish version of the Numbers Reversed Task	The Riverside Publishing Company		
Peabody Individual Achievement Test – Revised (PIAT-R)	Pearson Education, Inc.		
Peabody Picture Vocabulary Test – 3rd Edition (PPVT-III)	Pearson Education, Inc.		
Preschool Language Assessment Scale ( <i>pre</i> Las 2000) – Form C: Simon Says & Art Show	CTB/McGraw Hill		
Test of Early Mathematics Ability – 3rd edition (TEMA-3)	PRO-ED, Inc.		
Test of Early Reading Ability – 3rd edition (TERA-3)	PRO-ED, Inc.		
Test of Preschool Early Literacy (TOPEL)	PRO-ED, Inc.		
Woodcock-Johnson Psychoeducational Battery – Third Edition (WJ-III) Applied Problems Test	The Riverside Publishing Company		
Woodcock Johnson Psychoeducational Battery – Third Edition (WJ-III) – Calculations Test	The Riverside Publishing Company		
Woodcock Johnson Psychoeducational Battery – Third Edition (WJ-III) Tests of Cognitive Abilities – Numbers Reversed Task	The Riverside Publishing Company		
Teacher and parent instruments			
Children's Behavior Questionnaire (CBQ)	Samuel Putnam & Mary Rothbart		
Social Skills Rating System (SSRS)	Pearson Education, Inc.		
Student-Teacher Relationship Scale (STRS)	Robert C. Pianta		

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011).

# 2.2 Data Collection Methods

The following sections discuss the data collection methods used in the kindergarten year of the ECLS-K:2011. Information is provided on school recruitment (section 2.2.1), field staff training

(section 2.2.2), school contact in the fall (section 2.2.3), data collection (section 2.2.4), tracing activities (section 2.2.5), and data collection quality control (section 2.2.6). More detailed information on all of these topics can be found in *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11* (*ECLS-K:2011*), *Kindergarten Methodology Report* (Tourangeau et al. forthcoming).

The ECLS-K:2011 kindergarten data collections were conducted in the fall (August 2010 through January 2011) and spring (March through July 2011) of the 2010–11 school year. Fall data collection activities included interviews with parents and visits to the schools to select children for the study, to collect forms indicating parent consent for the children to participate, to conduct the direct child assessments, and to collect completed questionnaires from general classroom teachers. Spring data collection included interviews with parents and visits to the schools to conduct the direct child assessments and to collect completed questionnaires from general classroom teachers, special education teachers, and school administrators. The spring data collection also included the mailing and receipt of questionnaires from before- and after-school care providers.

The modes of data collection were computer-assisted personal interviewing (CAPI) for the child assessments; telephone and in-person computer-assisted interviewing (CAI) for the parent interview; and hard copy self-administered questionnaires for gathering information from teachers, school administrators, and before- and after-school care providers.

## 2.2.1 Study Endorsement and School Recruitment

Prior to recruitment for the study, key educational organizations were contacted and asked for an endorsement, as it was believed that having these organizations support the study would help with efforts to recruit schools and families into the study. The ECLS-K:2011 received the endorsement of many national associations and organizations representing parents, school administrators, teachers, and private religious and nonreligious schools.

Once the endorsements were received, letters describing the study were prepared on letterhead that noted all the endorsing organizations, and these letters were sent to educational staff at various organizational levels to inform them about the planned study data collections. For data collection efforts to begin in schools sampled for the study, it was necessary to secure a commitment to participate in the study from the school's administrator. However, before school administrators were contacted about the study, staff at higher organizational levels were contacted to determine whether they would have any objections to the study being conducted in schools within their purview and also to answer any questions

they may have had about the study. The levels of contact varied for public, Catholic, and non-Catholic private schools. Public schools had three levels of contact—state, school district, and school; Catholic schools had two levels—diocese and school; and non-Catholic private schools had one—the school. The process of notifying states, districts, dioceses, and non-Catholic private schools began in fall 2009. Contact with public and Catholic schools began in February 2010.

## 2.2.1.1 State-Level Contacts for Public Schools

Letters were sent to the Chief State School Officer, testing director, and early childhood program director (if one was identified) of each state that contained the ECLS-K:2011 sampled schools to explain the objectives of the study and the data collection procedures, in particular those for protecting individual and institutional confidentiality. Once contact was completed at the state level, contact was made with public school district superintendents.

#### 2.2.1.2 District and Catholic Dioceses Contacts

For public schools, a package containing a letter describing the study, a study brochure, a timeline of data collection activities, a summary sheet prepared for parents, and a list of the sampled schools within the district was sent to the district superintendent. A similar package of materials was sent to the Catholic dioceses and archdioceses in the sample to obtain permission to contact Catholic schools about the study. Beginning in late September 2009, calls were placed to the selected district superintendents and Catholic dioceses to explain the study, answer questions, and obtain permission to contact sampled schools within the district or diocese to secure the schools' participation. Once approval was obtained at the district or diocesan level, contact was made with each school administrator.

## 2.2.1.3 School Contacts

A letter and other study materials were mailed to school administrators in all the sampled schools in February 2010. Once the study materials were mailed, data collection staff began contacting school administrators by telephone to answer any questions they might have about the study and to secure their schools' participation. These telephone contacts began in February 2010 and continued through the end of the school year in June 2010; school recruitment continued in fall 2010 with the start of the new school year. Once the school administrator agreed to participate, he or she was asked to set an

appointment for two visits by the ECLS-K:2011 field staff. The purpose of first visit, the preassessment visit, was to select the sample of children within the school (see section 2.2.3 for more detail on this visit), and the second visit was to conduct the child assessments (see section 2.2.4.1 for more detail on this visit). The school administrator was also asked to identify an individual, referred to as the school coordinator, to act as the school liaison with the ECLS-K:2011 staff.

## 2.2.1.4 Efforts to Achieve High Participation Rates at the School Level

Recruitment for the study began a year before the start of data collection to ensure that study staff had ample time to contact staff at the various educational levels noted above, answer questions about the study, and attempt to secure participation at the school level, including any effort that was needed to convince reluctant school administrators to participate. A small group of staff with experience successfully recruiting schools and school districts to participate in other national studies, including the ECLS-K, worked to convert sampled schools that had initially refused to participate. In May 2010, it was determined that the number of schools that had agreed to participate was probably too low to achieve the desired number of participating schools before data collection began at the end of August 2010. For this reason, an additional sample of schools, referred to as substitute schools, was selected for recruitment into the study. Several waves of substitute schools were added between May and August 2010 (more information on school substitution can be found in chapter 4 section 4.1.2.8). To further increase the number of participating schools, an additional wave of substitute schools was selected for recruitment beginning in January 2011, before the spring kindergarten data collection began. The same levels of contact and procedures used in recruiting originally sampled schools were used with substitute schools.

#### 2.2.2 Field Staff Training

In-person training sessions were conducted to prepare field staff for the kindergarten data collection tasks; each training session had a home study component that included review of a field manual detailing study procedures and staff responsibilities. Three training sessions for the fall kindergarten round were conducted: one for staff recruiting schools into the study, one for data collection team leaders, and one for team leaders and assessors. Team leaders managed the data collection activities within their assigned regions, supervised assessors, and conducted child assessments and parent interviews. Assessors conducted the child assessments and the parent interviews. Two training sessions for the spring kindergarten round were conducted: one for continuing staff (i.e., staff who worked on the study in the

fall kindergarten round) and one for new staff. There were no new recruiters hired for the spring kindergarten collection; the few new team leaders were trained via home study.

## 2.2.2.1 School Recruitment Training

School recruitment staff—primarily field managers (staff who supervised multiple teams in a data collection region), team leaders, and supervisors with experience recruiting schools or working on other educational studies such as the ECLS-K, the National Assessment of Educational Progress (NAEP), and the Third International Mathematics and Science Study (TIMSS)—were trained in two sessions. Public school district and private school recruiters were trained in October 2009. In February 2010, training was held for recruiters of public and Catholic schools. The topics covered in the training included an introduction to the study, practice exercises in recruiting schools, refusal avoidance techniques, and exercises on scheduling schools efficiently within the group of cases assigned to a team. Exercises on scheduling schools covered topics such as scheduling preassessment visits and assessment visits so as to minimize downtime for the team between schools, avoid overlapping school visits, allow sufficient time between the preassessment and assessment date, as well as to minimize travel for work areas where a trouble shooter is needed.

#### 2.2.2.2 Fall 2010 Field Staff Training

In August 2010, two training sessions were held to prepare for the fall 2010 data collection: one for team leaders and one for team leaders and assessors. Team leaders attended the second training so they could meet the assessor staff they would be managing and to be trained on all aspects of the study. In addition, staff identified as troubleshooters were trained in both training sessions so that they could step in for team leaders or assessors, as necessary, as well as conduct child assessments and parent interviews.

Team leaders and assessors were trained in person over a period of 10 days in August 2010 (3 days of training for team leaders, 6 days of training for both team leaders and assessors, and 1 additional day of training for bilingual assessors). Prior to the in-person training, each staff member completed 8 hours of home study training on the study design, field procedures, and techniques in CAI. Team leaders completed an additional 8 hours of home study on managing the field work.

Table 2-1 shows the numbers of field staff trained before each wave of data collection.

Table 2-1.Number of field staff trained for the fall and spring kindergarten year data collections:<br/>School year 2010–11

Training	Number
August 2010 training for the fall kindergarten data collection	
Total	313
Team leaders and troubleshooters	134
Assessors	179
March 2011 training for the spring kindergarten data collection	
Total	291
Returning team leaders and troubleshooters	112
Returning assessors	140
New team leaders	4
New assessors	35

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

#### **In-Person Team Leader Training**

Team leader training preceded the assessor training and lasted 3 days. Topics covered included an introduction to the study, an overview of recruitment activities, contacting school coordinators, collecting information to select the sample in each school, performing within-school sampling, preparing parent consent packets for the schools to distribute, and entering sampled child and teacher data into the Field Management System (FMS). The FMS collects information at multiple levels (i.e., school level, teacher level, and child level) to manage field work and report progress.

#### **In-Person Assessor Training**

The assessor training sessions lasted 6 days and focused on administration of the parent interview (2 days) and the child assessments (4 days). In-person training sessions included an overview of study activities, interactive lectures<sup>9</sup> on conducting the parent interview and the direct child assessment, practice parent interviews conducted in pairs using role-play scripts, practice direct child assessments

<sup>&</sup>lt;sup>9</sup> Interactive lectures are those involving interview or assessment scripts in which the trainees adopt the role of the interviewer or assessor and practices administering the instrument while the trainer both fills the role of respondent and gives training points throughout the administration of the instrument.

using role-play scripts, techniques for avoiding refusals from parents, and strategies for building rapport with children. Trainees practiced entering information into the CAI system on laptop computers during the training presentations. Training for the parent interview focused on instructions for selecting the correct respondent to provide consent for the child to participate in the study and to complete the parent interview, as well as proper administration techniques, such as reading the questions verbatim, when to read response categories to respondents, and remaining neutral when asking sensitive questions or speaking with difficult respondents. Training for the child assessment focused on following standardized procedures for administration of all the assessment items, including reading the questions verbatim; avoiding giving the child feedback on his or her responses, either verbally or through nonverbal cues; and responding appropriately to children's behaviors. The sessions provided trainees with hands-on experience with all the direct child assessment materials and procedures and the CAI program prior to data collection.

Spanish-speaking bilingual trainees spent a 7th day at in-person training to learn about and practice the Spanish-language versions of the parent interview and the child assessment.

#### **Certification of the Assessors**

In order to ensure that the data collection staff who completed training administered the direct child assessments in a standardized manner, staff had to show competency through certification exercises. Certification consisted of written exercises on each section of the reading and math child assessments, written exercises on the executive function tasks, and an observation of each trainee administering the assessment to a child specifically recruited for certification purposes.

Written certification exercises. Each section of the assessments for reading and math and the two executive function tasks was reviewed in detail during an interactive lecture. Each interactive lecture was followed by practice in dyads using role-play scripts. After the practice, written exercises were distributed. The written exercises were used to ensure that each trainee understood the administration and coding rules for select questions with particularly complex administration and scoring rubrics. The exercises were collected and scored the same day. Trainees who did not achieve a passing score were asked to attend a help session that evening to review the items they answered incorrectly. These trainees then repeated the same exercises that they had previously failed.

**Child assessment certification.** In the final stage of the certification process, the trainees were observed conducting a direct child assessment with children brought on site to the training session.

Training staff who were already certified on the assessment observed trainees as they administered parts of the assessment to kindergarten-age children. The observers used a certification form to make general notes and track administration of selected items. They also rated the trainees on skills such as rapport with the child, avoidance of coaching, following proper administration procedures, and pacing. While the trainees administered the assessment, the observer simultaneously coded the child's answers to preselected questions. After the assessment was completed, a screen was brought up in the CAI program that displayed the assessor's coding of child responses to the selected questions. The answers recorded by the observer. Discrepancies between the child's actual response, as recorded by the observer, and the assessor's recorded answers affected the assessor's overall score on the certification form.

Trainees who scored at least 85 percent of possible points on the certification form were certified to administer the child assessments. Trainees who scored between 70 and 84 percent were required to complete remedial training after the in-person training under the supervision of the team leader until the team leader judged that the assessor was ready to conduct an observed assessment during the data collection. Trainees scoring less than 70 percent were released from the study.

## 2.2.2.3 Spring 2011 Training

Most staff trained for the fall data collection also collected data during the spring data collection. However, there was some data collection staff attrition, so 39 new field staff were hired for the spring data collection period. The new field staff members completed 8 hours of home study activities and then were trained in person in March 2011. They were trained on the child assessments and the parent interviews following the same agenda (with the addition of training on the science assessment, which was new to the spring data collection) and certification procedures used in the fall 2010 field staff training. Four of the new staff were team leaders, and, in addition to the in-person assessor training, they were trained via home study on team leader responsibilities and procedures. The team leader training generally followed the training agenda used in the fall 2010 team leader training, though there were two primary differences. Because most of the child sample selection had been completed in the fall, the new team leaders were not trained in the child sampling procedures. Also, information about how to handle cases of children who moved from their sample school between the fall and spring data collections was added.

Returning field staff members (112 team leaders and troubleshooters and 140 assessors) were trained via home study in March 2011. The home study training on the child assessment included watching videos, reading sections of their field manual, written exercises, solo practice of the assessment,

moderated discussions with their field managers, and practice with a kindergarten-age child who was not part of the national study. The child assessment home study took approximately 7 hours to complete. The home study training on the parent interview included watching videos, reading sections of their field manual, written exercises, solo practice of the parent interview, and dyad role-plays with another field interviewer over the telephone. The parent interview home study took approximately 7 hours to complete.

Returning team leaders and troubleshooters received an additional 8-hour refresher training on their supervisory responsibilities, including reviewing the team leader manual; reading new information about how to handle cases of children who moved from their sample school between the fall and spring data collections; reviewing assignment materials; reviewing the FMS; completing exercises on calling schools; and moderated discussion with their field managers about the new team leader responsibilities in the spring via conference call. Topics covered in this moderated discussion included preassessment activities (calling the school to confirm information collected in the fall and confirming receipt of questionnaires mailed from the home office) and the transfer school and child procedures (identifying transfer children, collecting new information, using the screens in the field management system, and fielding new transfer cases).

#### 2.2.3 Fall Preassessment Visit

Beginning in August 2010, an advance package was mailed via FedEx to each participating ECLS-K:2011 school. During recruitment in early 2010, the schools were asked to identify a school staff person to act as the school coordinator who would serve as a liaison with the study. The advance package was directed to the named school coordinator. The package contained instructions and forms for collecting kindergarten enrollment information in preparation for child sample selection during a preassessment visit by the team leader. The package also included informational brochures for staff and parents at the school.

At the beginning of the fall data collection, team leaders contacted the schools in their assignments to introduce themselves, confirm the preassessment visit appointment date set by the recruiter at the time the school agreed to participate, and answer any questions about the study. During the preassessment visit, the team leader listed all children enrolled in kindergarten in the school and, using a sampling program on the study laptop, randomly selected a sample of 23 children. All kindergartners in a school were selected if the school's kindergarten enrollment total was 27 or fewer students.

Once children were selected, the team leader prepared parent consent packets, including a parent letter, consent form, and brochure, for the school to distribute to the parents of the sampled children. The team leader also determined the classroom assignments of the sampled children and prepared teacher packets to distribute to the sampled children's teachers at the preassessment visit. These packets contained a letter, brochure, and timeline of study activities, as well as the teacher- and child-level questionnaires. Each teacher received a child-level questionnaire for each study child in his or her classroom, as well as one teacher-level questionnaire.

Finally, the team leader confirmed the scheduled school assessment visit, the date when the team would visit the school to conduct the assessments. The team leader worked with the school coordinator to identify the best locations for conducting the child assessments.

Between the preassessment visit when children were selected for the study and the assessment visit when the assessments were conducted, the team leader stayed in touch with the school coordinator to monitor the collection of the parent consent forms.

## 2.2.4 Data Collection

During both the fall 2010 and spring 2011 data collection periods, the field staff were organized into data collection teams consisting of one team leader and two or more assessors. All team members participated in the assessment visit to the school, during which the direct child assessments were conducted with the sampled children for whom parent consent to participate had been obtained. Completed teacher questionnaires also were collected during the assessment visit. All team members also conducted parent interviews, which were generally conducted by telephone, outside the school. During the fall data collection, child assessments were conducted from August through mid-December 2010, and parent interviews were conducted from March through June 2011, and parent interviews were conducted from March through June 2011, and parent interviews were in nonparental care 5 hours or more per week were identified from the fall parent interview; data were collected from these providers during the spring data collection.

## 2.2.4.1 Conducting the Direct Child Assessments

In both fall and spring, the direct child assessments were usually conducted in an unoccupied school classroom, an unoccupied meeting room, or the school library. Before conducting the assessments each day, team leaders and assessors set up the room(s) for the assessments, which included arranging tables and chairs in a way that allowed children to concentrate on the questions being asked without being distracted by other study children being assessed at the same time and setting up a station where children's height and weight could be measured. Each child was signed out of his or her classroom prior to the assessment and signed back into the classroom upon conclusion of the assessment. The child assessment was designed to take, on average, 1 hour to complete.

In each school, at the conclusion of the fall 2010 assessment, team leaders scheduled an appointment for the spring assessment visit. In the spring, team leaders made preassessment calls to the schools in their assignments prior to the scheduled assessment date to confirm the date and assessment logistics and prompt for completion of school and teacher questionnaires.

# 2.2.4.2 Collecting the Teacher and School Administrator Questionnaires

During the fall data collection, the self-administered hard-copy teacher-level and child-level questionnaires were collected from the child's general classroom teacher. The spring data collection questionnaires included those from the child's main classroom teacher and, if applicable, from a special education teacher who was assigned to work with the child (if he or she had an IEP). The special education teacher completed both teacher-level and child-level questionnaires. In addition, a self-administered school administrator questionnaire was completed at each school, usually by the school administrator. During the preassessment call before spring data collection began, the team leaders reminded the school coordinators to gather completed questionnaires from teachers and school administrators so that the team leader could collect them during the assessment visit. If the questionnaires were not completed by the end of the assessment visit, team leaders attempted to make arrangements to return to the school to pick up the questionnaires once completed.

#### 2.2.4.3 Conducting the Parent Interviews

In both rounds of data collection, the parent interview was administered to most parents (92 percent in the fall and 88 percent in the spring) by telephone, using CAI. The parent interview was

conducted in person if the respondent preferred it (for example, if the respondent was concerned about using minutes on a cellular telephone plan for the interview) or if the respondent did not have a telephone. Assessors attempted to complete the parent interview with the parents of the children they themselves had assessed at school. Assessors also offered to conduct the interview at a time that was most convenient for parents and in more than one phone call if parents could not complete the entire interview all at once.

Interviews were conducted in English and Spanish in accordance with the parents' language preference; 90 percent of the parent interviews were conducted in English in the fall, and 88 percent were conducted in English in the spring. The Spanish interviews (9 percent in fall and 11 percent in spring) were administered by bilingual interviewers. A few interviews were completed with parents who spoke other languages by using an interpreter who translated from the English during the interview (less than 1 percent in fall, 1 percent in spring). Both the fall and spring parent interviews averaged 45 minutes.

When interviewers first called the children's homes, they initially asked to speak to the contact person identified by the school. If that person no longer resided with the child or was not available during the field period, the interviewer asked for another respondent. Specific questions were then asked to determine that the respondent was a knowledgeable parent or guardian who lived with the child. If there was no parent or guardian in the household who knew about the child, a household member who was 18 or older and knew about the child was asked to complete the interview. Most respondents to the fall parent interview were mothers (87 percent) or fathers (10 percent). In about 3 percent of cases, another relative or a nonrelative responded to the parent interview.

During the spring data collection round, interviewers attempted to complete the parent interview with the same respondent who answered the parent interview in the fall round, if one had been completed. However, if the fall parent interview respondent was no longer a member of the household, was not available during the field period, or could not be contacted after multiple attempts, the interviewer asked for another adult household member who could complete the parent interview, using the same criteria: a parent or guardian in the household who knew about the child's care, education, and health. The fall and spring parent interview respondents were the same for about 96 percent of cases with completed interviews in both rounds.

## 2.2.4.4 Before- and After-School Care (BASC) Data Collection

Before- and after-school care (BASC) providers of sampled children who were in nonparental care 5 or more hours per week were identified during the fall parent interview. To be eligible for the BASC data collection, the care provider had to be 18 years old or older. If the child had more than one care provider, then the provider with whom the child spent the most time during the week was selected for the BASC data collection. If the child spent an equal amount of time with two or more care providers during the week, then one care provider was randomly selected.

Parental consent to contact the child's care provider was requested on the same consent form used to obtain permission for the child's participation in the study that was included in the parent information packets distributed by the school. Information was collected from the care providers using self-administered hard-copy questionnaires mailed directly to the providers. Providers were classified as either center-based or home-based, depending on whether they provided care in a center-based setting (e.g., at a school, recreation center, or child care facility) or in a private home. Each provider received a provider-level questionnaire with questions tailored to the type of setting in which he or she provided care. All providers received one child-level questionnaire per study child in their care. In addition, administrators of centers attended by study children were asked to complete a self-administered questionnaire. The packages were mailed to before- and after-school care providers starting in April 2011 and included a letter, signed parent consent forms to assure the child care provider that the children were part of the study, the relevant questionnaires and a return FedEx mailer. Questionnaires were received from before- and after-school providers from April until the end of July 2011. All providers not responding by mail were prompted by staff in Westat's Telephone Research Center (TRC) to return the completed questionnaires. TRC staff called providers who had not yet returned completed questionnaires and attempted to complete the questionnaires over the telephone.

## 2.2.5 Tracing Activities

In the fall 2010 round of data collection, schools were able to provide contact information for most of the children's parents or guardians. However, sometimes contact information was missing or no longer correct by the time field staff tried to contact parents, and field staff had to conduct online searches for parent telephone numbers and addresses or visit the neighborhood in which the address provided by the school was located to find parents.

In spring 2011, school coordinators were mailed packages with a list of the sampled children at their school. As part of the preassessment call to each school, team leaders reviewed the list with the school coordinator to determine if the sampled children still attended that school. If a sampled child had left the school after the fall visit, the school coordinator was asked for any updated contact information the school may have had, including the name of the child's new school and new contact information for the parent. All children who moved out of their original sample school but still lived within one of the study's primary sampling units (PSUs) were followed for data collection; for children who moved outside the PSUs, an attempt was made to conduct the parent interview but no other study activities were completed. Approximately 350 children who were participants in the fall were not included in the spring collection because they moved out of a PSU included the study.

If a sampled child transferred to a school in a study PSU but the school was not already participating in the ECLS-K:2011, the new school needed to be recruited for the study. The first step for this recruitment was to contact the new school's district or diocese (if applicable) and inform it of the transfer of an ECLS-K:2011 student into one of its schools. If the district or diocese was not already participating, the necessary recruitment steps were completed. If the district or diocese was already participating, this contact was informational. After district/diocese contact, a team leader contacted the school to ask the administrator to participate so that an assessor could visit the school to conduct the child assessment and obtain completed teacher questionnaires. About 820 children who were participants in the fall had transferred to a different school by the spring. Approximately 10 percent of the transfer school children moved to a school that refused to participate. In these cases, the parent was contacted to make arrangements to conduct the child assessment in the home or some other location outside the school.

## 2.2.6 Data Collection Quality Control

Continuous quality assurance procedures were employed throughout all stages of data collection (e.g., in the staff training program, through assessment certification, and as part of the ongoing staff observations and evaluation activities). During assessor training, field staff practiced conducting the parent interview in pairs and administered the direct child assessments with kindergarten-age children brought to the training site for this purpose. The supervisors and assessors were certified on the child assessments. When the fieldwork began, team leaders observed each assessor conducting at least two child assessments; home office staff validated parent interviews by reviewing audio recordings; and field managers made telephone calls to the schools to collect information on the school activities for validation purposes.

#### 2.2.6.1 Child Assessment Observations

Team leaders and home office staff conducted in-field observations of child assessments conducted by assessors during data collection. In each round, each assessor was observed administering

two assessments. The first observation was scheduled to be conducted within the first 2 weeks of data collection, and the second observation was scheduled to be conducted about midway through the data collection period. The same assessment certification form used to certify assessors at training was used to evaluate the assessor's performance conducting the child assessments during data collection. The assessor was rated in three areas:

- 1. Rapport building and working with the child—praising the child for attending to the tasks and working on the tasks (i.e., praising the child's effort rather than the performance) and the assessor's response to various child behaviors.
- 2. Cognitive assessment activities—reading questions verbatim, the use of acceptable probes, the use of appropriate hand motions for items requiring gestures, and the absence of coaching the child to assist with his or her performance.
- 3. Specific assessment activities—correctly coding answers to open-ended questions in the assessments and following administration procedures.

During the observation, the team leaders recorded their observations on the form and then reviewed the form with the assessor being observed. Feedback was provided to the assessors on the strengths and weaknesses of their performance and, when necessary, remedial training on weak performance was provided by a team leader under direction by the field manager. After completing the remedial training, additional observations were scheduled to ensure that the weaknesses were addressed. The completed observation forms were sent to a field manager who reviewed the forms and passed them on to the field directors for storage at the home office. All field staff who completed at least two observations earned passing scores, including those who completed the remedial training.

# 2.2.6.2 Quality Control of Parent Interviews

Approximately 10 percent of the respondents who completed parent interviews were selected for validation to assure quality data collection. Validations were selected to include the first parent interview completed by an assessor and then every 10th completed interview thereafter. Over the course of the field period, a running count of an assessor's completed parent interviews was maintained, and each 10th completed parent interview was selected for validation, thus ensuring that about 10 percent of each assessor's cases were selected for validation.

To validate the parent interviews, a Telephone Research Center (TRC) staff member listened to an audio file that included sections of a parent interview recorded by the laptop while the interview was being conducted. The TRC staff reviewed the answers that had been recorded and compared them to the responses entered by the assessor to determine if there were any differences between the recorded responses and the CAI-entered responses. If a difference was identified, field management staff were immediately alerted to discuss any issues with assessors and correct problems. In addition, interviewers were rated on their skill in conducting the parent interview. Feedback was provided to the field staff to both individuals and all staff through the weekly field communication.

## 2.2.6.3 Validation of School Visits

To ensure that assessment visits in the schools were proceeding smoothly, field managers conducted school validations by telephone with school administrators in at least two of each team leader's assigned schools in the fall. Another two schools per team leader were validated in the spring data collection. This was approximately 20 percent of each team's assignment per round of data collection for approximately 400 total school validations.

The first school visited by each team was called to ascertain how well the preassessment and assessment activities went, and then the fifth school that the team visited was called for the second validation. Field managers used a standardized script to call the school administrators. The script covered the following topics: an overall rating of how the assessments went; feedback about the study from the children and teachers; suggestions for improving procedures and making it easier for a school to participate; and general comments and suggestions. In the fall, the feedback from the validation calls with each team's first and fifth schools was positive in all but two schools. The team leaders in those two schools were released from the study. In the spring, the feedback from all of the schools was positive.

#### 2.3 Differences Between the ECLS-K and ECLS-K:2011

To a great extent, the ECLS-K:2011 draws from the domains and measures developed for the ECLS-K to allow for comparisons of the characteristics and experiences of the two cohorts of children who were in kindergarten more than a decade apart. Much of the studies' content and data collection procedures are the same or similar because the instrumentation and procedures used in the ECLS-K served as the starting point for development of the ECLS-K:2011. However, the ECLS-K:2011 is not a replication study. During the design phase for the ECLS-K:2011, content and assessment experts, education policymakers, and other specialists were consulted for their input on ways in which the ECLS-K instrumentation and procedures could or should be changed to ensure that the information collected reflects current knowledge and issues in education. This section summarizes major areas of difference between the two studies.

**Direct child assessment.** There are six general areas of difference between the kindergarten assessment in the ECLS-K and the ECLS-K:2011.

- Language screening. The language screener used in the ECLS-K consisted of three subtests of the *pre*LAS 2000: "Simon Says" which measured listening comprehension, "Art Show" which was a picture vocabulary assessment, and "Let's Tell Stories" which evaluated the child's natural speech. These three subtests were referred to as the Oral Language Development Scale (OLDS). The screener was administered only to children who were identified by the school as language minority children. In the ECLS-K:2011, only two of the *pre*LAS subtests, "Simon Says" and "Art Show," were used to screen for English language proficiency. Also, as noted in section 2.1.1, this screener was administered to all children, as opposed to only children with a home language other than English, though it served mainly as a warm-up for children whose home language was English because the items were relatively easy for a native English speaker. The *pre*LAS subtest data are included on the data file for all children to whom the subtests were administered, regardless of home language.
- English reading assessment for all children. In the ECLS-K, only children who achieved at least a minimum score on the English proficiency screener were administered the remaining cognitive assessments in English. In order to capture the beginning English reading skills of English language learners (ELL), all children in the ECLS-K:2011 were administered a set of items from the main English reading assessment, regardless of their performance on the *preLAS* subtests. These items measured English basic reading skills (EBRS).
- Spanish reading assessment. The ECLS-K did not include a Spanish reading assessment. Spanish-speaking children in the ECLS-K:2011 who did not achieve at least a minimum score on the *pre*LAS subtests were administered a reading assessment in Spanish that measured Spanish early reading skills (SERS) after they were administered the EBRS.
- General knowledge/science. The ECLS-K kindergarten assessment battery included an assessment domain called general knowledge, which consisted of items measuring science and social science knowledge. In the ECLS-K:2011, the general knowledge component was not administered. Instead, an assessment focusing just on science knowledge and skills was included in the spring kindergarten collection.
- **Executive function.** An executive function assessment component, which was not included in the ECLS-K, was a part of the ECLS-K:2011 assessment battery.
- Fine and gross motor skills. In the fall kindergarten data collection of the ECLS-K, the direct assessment battery included tasks measuring fine and gross motor skills. Motor skills were not measured in the ECLS-K:2011.

**Parent interview.** The differences in content between the parent interviews in the ECLS-K and the ECLS-K:2011 were generally at the item level rather than at the construct level. The broad topics addressed in the ECLS-K:2011 kindergarten parent interviews, as shown in exhibit 2-3, also were addressed in the kindergarten parent interviews for the ECLS-K. An exception is that the questions included in the ECLS-K interview to support a Head Start program confirmation component in the base year were not included in the ECLS-K:2011. Also, unlike the ECLS-K, the ECLS-K:2011 interview included items to identify and select a current before- or after-school child care provider from whom data about the child's care arrangement would be collected (described further below).

In the ECLS-K the mother was the preferred respondent if she lived with the child. In the ECLS-K:2011, interviewers started with the parent or guardian contact identified by the school and confirmed that the parent contact was a parent or guardian who lived with the child and knew the most about his or her education, care, and health. If the parent contact did not meet these criteria, a different parent or guardian who did meet these criteria was identified.

School administrator questionnaires. Changes in education policy and current issues of interest necessitated some changes to the topics included in the school administrator questionnaire. For example, the implementation of policies related to No Child Left Behind led to the collection of information about Adequate Yearly Progress (AYP) in the ECLS-K:2011. Title III services for English language learners were a new area of interest. Other items related to school attendance, school choice, school breakfast and lunch programs, and school-family connections were either new for the ECLS-K:2011 compared to the ECLS-K or were revised from the way they were asked in the ECLS-K.

**Teacher questionnaires.** Items also were added to the teacher-level questionnaire to address topics of current policy interest including materials and services for ELL students, methods of student assessment, the use of homework in kindergarten, and whether teachers were considered "highly qualified" according to the criteria for their state. Items related to the teachers' credentials and licensing that were not included in the ECLS-K kindergarten teacher questionnaires were asked in the ECLS-K :2011. At the child level, the indirect assessment of general knowledge that was included in the ECLS-K was replaced with an indirect assessment of science knowledge to reflect the change in the focus of the direct assessment. Measures added to the child-level questionnaire in the ECLS-K:2011 included the Children's Behavior Questionnaire (Putnam and Rothbart 2006) and the Student-Teacher Relationship Scale (Pianta and Steinberg 1992). Some items were also added to the student information section of the instrument, including enrollment-related questions and items about programs for ELL students.

**Special education teacher questionnaires.** The ECLS-K:2011 incorporated additional measures of teacher educational background, certification/licensure, and professional experience. Additional items about services and direct/indirect service delivery also were added to the child-level instrument.

**Before- and after-school care questionnaires.** Information about children's current beforeor after-school care arrangements was not collected directly from care providers in the ECLS-K. The ECLS-K:2011 included questionnaires for these care providers in the spring kindergarten data collection in order to capture more information about the study children's experiences with caregivers other than their parents. These questionnaires were modeled after the nonparental care provider interviews conducted in the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B).

**Student record abstract.** In the ECLS-K, some information about children was collected from student records using a standard abstracting form. Field staff used this data collection form to record information from the student record and sent this form to the home office with other data collection materials. This form was not used in the ECLS-K:2011. Some of the information that had been collected in the abstract in the ECLS-K (e.g., absences from school, whether the child's home language was English, whether the child had an IEP) was collected in the ECLS-K:2011 child-level teacher questionnaires.

**Facilities checklist.** Field staff in the ECLS-K completed a series of questions about their observations in and around the school building in an instrument referred to as a facilities checklist. The ECLS-K:2011 did not include this instrument. The school administrator questionnaire in the ECLS-K:2011 covered much of the information that had been collected through the ECLS-K facilities checklist.

**Supplemental studies.** The Head Start verification study and the Salary and Benefits Questionnaire component included in the base year of the ECLS-K were not a part of the ECLS-K:2011.

Twins. In the ECLS-K, both twins in a twin pair were included in the sample if at least one of the twins had been sampled for the study. In the ECLS-K:2011, both twins were included only if both twins were separately sampled. If one twin was sampled and one was not, only the sampled twin was included in the study.

In the ECLS-K, the parent interview was structured and programmed so that the full interview was conducted for one twin and then only child-specific questions were asked about the second

child. In the ECLS-K:2011, if both twins in a family happened to be sampled, the entire interview was to be administered for each child, but field staff were instructed to manually skip through sections collecting information that would be the same for each child (such as household and parent information) and only ask questions in the child-specific sections about the twin in the second interview. However, without such skips being programmed in the CAI instrument, this procedure was difficult to follow in the field. Users who wish to conduct analyses with the 98 households with sampled twins should review those data carefully.

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## 3. ECLS-K:2011 DIRECT AND INDIRECT ASSESSMENT DATA

This chapter provides information about the direct and indirect assessment data from the kindergarten year of the ECLS-K:2011. The chapter begins with a description of the direct cognitive assessments, providing information about the scores available on the data file. The chapter then presents information on the executive function assessments. Finally, the chapter closes with information on teacher and parent assessments of children's cognitive and socioemotional knowledge and skills.

#### **3.1** Direct Cognitive Assessment: Reading, Mathematics, Science

The kindergarten direct cognitive assessments measured children's knowledge and skills in reading, mathematics, and science. This section presents information about the assessment scores available on the data file. More detailed information about the development of the scores, including a more complete discussion of Item Response Theory (IRT) procedures, can be found in the *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11, Kindergarten Psychometric Report* (Najarian et al. forthcoming). A description of the administration of the direct assessments is provided in chapter 2, section 2.1.1.

It must be emphasized that the assessment scores described below are *not* directly comparable with those developed for the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K). Although the IRT procedures used in the analysis of data were similar in the ECLS-K and in the ECLS-K:2011, each study incorporated different items and the resulting scales are different. A subsequent release of the ECLS-K:2011 data will include IRT scores that are comparable with the ECLS-K cohort.

#### **3.1.1 IRT-Based Scores Developed for the ECLS-K:2011**

Broad-based scores using the full set of assessment items in reading, mathematics, science, and Spanish Early Reading Skills (SERS) were calculated using IRT procedures. IRT is a method for modeling assessment data that makes it possible to calculate an overall score for each domain measured for each child that can be compared to scores of other children regardless of which specific items a child

is administered. This method was used to calculate scores for the ECLS-K:2011 because, as discussed in chapter 2, the study employed a two-stage assessment in reading and mathematics in which children were administered a set of items appropriate for their demonstrated ability level, rather than all the items in the assessment. Although this procedure resulted in children being administered different sets of items, there was a subset of items that all children received (the items in the routing tests, plus a set of items common across the different second-stage forms). These common items were used to calculate scores for all children on the same scale. Similarly, for the single-stage science and SERS assessments, IRT was used to calculate scores for all children on the same scale. In the single-stage forms, the assortment of items a child received was not dependent upon routing to a second stage, but instead on omissions by the child or the discontinuation of the assessment form. In those cases, IRT is used to estimate the child's probability of a correct response when no response is indicated. IRT uses the pattern of right, wrong, and omitted responses to the items actually administered in an assessment and the difficulty, discriminating ability,<sup>1</sup> and "guess-ability" of each item to estimate each child's ability on the same continuous scale.

IRT has several advantages over raw number-right scoring. By using the overall pattern of right and wrong responses and the characteristics of each item to estimate ability, IRT can adjust for the possibility of a low-ability child guessing several difficult items correctly. If answers on several easy items are wrong, the probability of a correct answer on a difficult item would be quite low. Omitted items are also less likely to cause distortion of scores, as long as enough items have been answered to establish a consistent pattern of right and wrong answers. Unlike raw number-right scoring, which treats omitted items as if they had been answered incorrectly, IRT procedures use the pattern of responses to estimate the probability of a child providing a correct response for each assessment question. Finally, IRT scoring makes possible longitudinal measurement of gain in achievement, even when the assessments that are administered to a child are not identical at each point (for example, when a child was administered a different level of the second-stage form of a given domain in the spring data collection than in the fall data collection).

#### 3.1.1.1 Theta and the Standard Error of Measurement (SEM) of Theta

On the ECLS-K:2011 base-year data file, a theta score is provided for each child who participated in the direct cognitive assessment for each cognitive domain assessed. The theta score<sup>2</sup> is an

<sup>&</sup>lt;sup>1</sup> The discriminating ability describes how well changes in ability level predict changes in the probability of answering the item correctly at a particular ability level.

<sup>&</sup>lt;sup>2</sup> Theta is iteratively estimated and re-estimated; thus, the theta score is derived from the means of the posterior distribution of the theta estimate.

estimate of a child's ability in a particular domain (e.g., reading, mathematics, science, or SERS) based on his or her performance on the items he or she was actually administered. Theta scores for reading, mathematics, and SERSs are provided in the data file for the fall and spring kindergarten data collection rounds. A science theta score is provided for spring kindergarten only because the science assessment was not administered in the fall. The theta scores are reported on a metric ranging from -6 to 6, with lower scores indicating lower ability and higher scores indicating higher ability. Theta scores tend to be normally distributed because they represent a child's latent ability and are not dependent on the difficulty of the items included within a specific test.

The standard error of theta provides a measure of uncertainty of the theta score estimate for each child. Adding and subtracting twice the standard error from the theta score estimates provides an approximate 95 percent confidence interval or range of values that is likely to include the true theta score. Unlike in classical item theory where the precision of the scores is consistent across all examinees, IRT allows the standard error to vary. Larger standard errors of measurement can be the result of estimations of thetas in the extremes of the distribution (very low or very high ability) or for the estimates of abilities of children who responded to a limited number of items (i.e., children who responded to all items administered generally have lower standard errors of measurement than those children responding to fewer items.)

Tables 3-1 and 3-2 list the names of the variables pertaining to the IRT theta scores and standard errors of measurement available in the data file, along with the variable descriptions, ranges, weighted means, and standard deviations.<sup>3</sup>

 $<sup>^{3}</sup>$  The name and description for each variable in the tables begin with an "X," indicating that it is a derived/calculated variable, and a data collection round number (1 for the fall kindergarten round and 2 for the spring kindergarten round). These variable naming conventions are used for all the variables mentioned in this chapter. More information about variable naming conventions can be found in chapter 7.

Variable	Description	n	Range of possible values	Weighted mean	Standard deviation
X1RTHET	X1 Reading IRT Theta Score	15,669	-6.0 - +6.0	-0.57	0.871
X2RTHET	X2 Reading IRT Theta Score	17,185	-6.0 - +6.0	0.48	0.772
X1SERSTH	X1 SERS IRT Theta Score	312	-6.0 - +6.0	-0.41	0.852
X2SERSTH	X2 SERS IRT Theta Score	147	-6.0 - +6.0	0.68	0.667
X1MTHET	X1 Math IRT Theta Score	15,595	-6.0 - +6.0	-0.52	0.929
X2MTHET	X2 Math IRT Theta Score	17,143	-6.0 - +6.0	0.42	0.773
X2STHET	X2 Science IRT Theta Score	16,936	-6.0 - +6.0	0.00	0.887

Table 3-1.Direct cognitive assessment: IRT theta scores, fall and spring kindergarten assessments:<br/>School year 2010–11

NOTE: Estimates weighted by W1C0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

# Table 3-2.Direct cognitive assessment: IRT standard errors of measurement (SEM), fall and spring<br/>kindergarten assessments: School year 2010–11

Variable	Description	п	Range of possible values	Weighted mean	Standard deviation
X1RSETH	X1 Reading IRT SEM	15,669	0.0 - 6.0	0.29	0.044
X2RSETH	X2 Reading IRT SEM	17,185	0.0 - 6.0	0.24	0.067
X1SERSSE	X1 SERS IRT SEM	312	0.0 - 6.0	0.39	0.142
X2SERSSE	X2 SERS IRT SEM	147	0.0 - 6.0	0.27	0.077
X1MSETH	X1 Math IRT SEM	15,595	0.0 - 6.0	0.35	0.101
X2MSETH	X2 Math IRT SEM	17,143	0.0 - 6.0	0.28	0.064
X2SSETH	X2 Science IRT SEM	16,936	0.0 - 6.0	0.70	0.081

NOTE: Estimates weighted by W1C0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

#### 3.1.1.2 Scale Scores

The IRT-based overall scale score for each content domain is an estimate of the number of items a child would have answered correctly in each data collection round if he or she had been administered all of the questions for that domain (that is, all of the 83 unique questions in the router and the three second-stage reading forms administered in kindergarten, all of the 75 unique questions in the router and the three second-stage mathematics forms, all of the 20 items administered in the single-stage science form, and all 31 items administered in the single-stage SERS form).

To calculate the IRT-based overall scale score for each domain, a child's theta is used to predict a probability for each assessment item that the child would have gotten that item correct. Then, the probabilities for all the items fielded as part of the domain are summed to create the overall scale score. Because the computed scale scores are sums of probabilities, the scores are not integers.

Reading, mathematics, and SERS gain scores may be obtained by subtracting the IRT scale scores at fall kindergarten from the IRT scale scores at spring kindergarten. For the science assessment, it is not possible to compute gain scores because the assessment was not administered in the fall kindergarten collection. Scores for different subject areas are not comparable to each other because they are based on different numbers of questions and content that are not necessarily equivalent in difficulty (for example, if a child's IRT scale score in reading is higher than in mathematics, it would not be appropriate to interpret that to mean the child is doing better in reading than in mathematics).

Table 3-3 provides the names of the variables pertaining to the IRT scale scores available on the data file, along with the variable descriptions, ranges, weighted means, and standard deviations.

5					
Variable	Description	п	Range of possible values	Weighted mean	Standard deviation
X1RSCAL	X1 Reading IRT Scale Score	15,669	0.0 - 83.0	34.42	11.663
X2RSCAL	X2 Reading IRT Scale Score	17,185	0.0 - 83.0	49.08	11.724
X1SERSSC	X1 SERS IRT Scale Score	312	0.0 - 31.0	12.75	5.343
X2SERSSC	X2 SERS IRT Scale Score	147	0.0 - 31.0	20.83	5.592
X1MSCAL	X1 Math IRT Scale Score	15,595	0.0 - 75.0	28.95	10.694
X2MSCAL	X2 Math IRT Scale Score	17,143	0.0 - 75.0	41.64	11.166

Table 3-3.Direct cognitive assessment: IRT scale scores, fall and spring kindergarten assessment:<br/>School year 2010–11

NOTE: Estimates weighted by W1C0.

X2SSCAL

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

16,936

11.22

2.861

0.0 - 20.0

## 3.1.2 Raw Number-Right Scores for the ECLS-K:2011

X2 Science IRT Scale Score

Several raw number-right scores, which are counts of the number of items a child answered correctly, are provided in the data file. Raw number-right scores for the Simon Says and Art Show subtests of the *pre*LAS (Duncan & De Avila, 2000) provide information on children's basic English proficiency. They are derived from the 10 items administered in the Simon Says assessment and the 10

items administered in the Art Show assessment. The Simon Says and Art Show subtests of the *pre*LAS were administered to all children, so all children have raw number-right scores for these two subtests.

A raw number-right score is provided for children's performance on the set of 20 English Basic Reading Skills (EBRS) items, which were also administered to all children as part of the reading assessment routing test. The EBRS items target specific early reading skills, predominantly letter recognition and letter sounds, with a few phonemic awareness, vocabulary, and word reading items.

Additionally, number-right scores are provided for the 10 items common to the EBRS and SERS. Only Spanish-speaking children who did not obtain a high enough score on the *pre*LAS subtests to take all the assessments in English were administered the SERS items, so these number-right scores are only available for those children. A child who was administered the SERS has responses to these 10 items administered in English as part of the EBRS and to these 10 items administered in Spanish as part of the SERS. Each child administered both the EBRS and SERS will thus have two scores for the 10 common items: (1) number correct for the 10 EBRS items and (2) number correct for the 10 SERS items.

Table 3-4 provides the names of the variables pertaining to the different raw number-right scores available in the data file, along with their descriptions, ranges, weighted means, and standard deviations.

Variable	Description	n	Range of possible values	Weighted mean	Standard deviation
X1PLSS	X1 preLAS Simon Says Raw Number Right	15,784	0-10	9.18	1.754
X2PLSS	X2 preLAS Simon Says Raw Number Right	17,215	0 - 10	9.60	1.120
X1PLART	X1 preLAS Art Show Raw Number Right	15,784	0 - 10	9.26	1.705
X2PLART	X2 preLAS Art Show Raw Number Right	17,215	0 - 10	9.54	1.274
X1PLTOT	X1 preLAS Total Raw Number Right	15,784	0 - 20	18.43	3.184
X2PLTOT	X2 preLAS Total Raw Number Right	17,215	0 - 20	19.14	2.178
X1EBRSTOT	X1 EBRS Raw Number Right	15,738	0 - 20	13.18	4.424
X2EBRSTOT	X2 EBRS Raw Number Right	17,195	0 - 20	17.06	2.976
X1EBRSCM	X1 EBRS/SERS Common Raw Number Right, EBRS	336	0 - 10	3.21	2.583
X2EBRSCM	X2 EBRS/SERS Common Raw Number Right, EBRS	154	0 - 10	4.13	3.129
X1SERSCM	X1 EBRS/SERS Common Raw Number Right, SERS	316	0 - 10	4.72	2.992
X2SERSCM	X2 EBRS/SERS Common Raw Number Right, SERS	148	0 - 10	8.05	2.037

Table 3-4.Direct cognitive assessment: Raw number-right scores, fall and spring kindergarten<br/>assessments: School year 2010–11

NOTE: Estimates weighted by W1C0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), fall 2010 and spring 2011.

## 3.1.3 Variables Indicating Children's Pathway Through the Assessment

Several variables indicating how children were routed through the assessment are available on the data file. X1ELLSCR and X2ELLSCR can be used to determine routing based on the child's home language and performance on the English language screener used for the study. These variables are coded 0 for children who were eligible for the entire battery in English because they are native English speakers or they demonstrated sufficient basic English skills as determined by their score on the preLAS. Cases coded 1, Spanish Speaker, routed through Spanish assessment, did not demonstrate sufficient basic English skills as determined by their score on the preLAS, and, because Spanish was their primary language, they were administered the SERS assessment, followed by the mathematics and executive function assessments in Spanish after completing the EBRS section of the reading assessment in English. Cases coded 2, Other language speaker (not Spanish/English), did not demonstrate sufficient basic English skills as determined by their score on the *preLAS* to take the assessments in English, and, because they spoke a language other than Spanish, the cognitive assessment ended for them after the EBRS section of the reading assessment. They routed directly into the physical measures after completing the EBRS in English. X1EXDIS and X2EXDIS can be used to identify children who were excluded from the assessment because they needed an accommodation the study did not provide or because they had an Individualized Education Program (IEP) that indicated they could not take part in standardized assessments. These variables are coded 1, Excluded from assessment due to disability, for children who were excluded from the assessment because of a restriction indicated in their IEP. Cases coded 0, Not excluded from assessment, were not excluded from the assessment.

#### **3.1.4** Choosing the Appropriate Score for Analysis

When choosing scores to use in analysis, researchers should consider the nature of their research questions, the type of statistical analysis to be conducted, the population of interest, and the audience. The sections below discuss the general suitability of the different types of scores for different analyses.

The IRT-based theta scores are overall measures of ability. They are appropriate for both cross-sectional and longitudinal analyses. They are useful in examining differences in overall achievement among subgroups of children in a given data collection round or across rounds, as well as in analysis looking at correlations between achievement and child, family, and school characteristics. The fall kindergarten and spring kindergarten theta scores are on the same metric. Therefore,

an analyst looking at growth across the kindergarten year could subtract the fall kindergarten score from the spring kindergarten score to compute a gain score. The theta scores may be more desirable than the scale scores for use in a multivariate analysis because generally their distribution tends to be more normal than the distribution of the scale scores.<sup>4</sup> However, for a broader audience of readers unfamiliar with IRT modeling techniques, the metric of the theta scores (from -6 to 6) may be less readily interpretable. Researchers should consider their analysis and the audience for their research when selecting between the theta and the scale score.

- The IRT-based scale scores also are overall measures of achievement. They are appropriate for both cross-sectional and longitudinal analyses. They are useful in examining differences in overall achievement among subgroups of children in a given data collection round or in different rounds, as well as in analysis looking at correlations between achievement and child, family, and school characteristics. The fall kindergarten and spring kindergarten scale scores are on the same metric. Therefore, an analyst looking at growth across the kindergarten year could subtract the fall kindergarten score from the spring kindergarten score to compute a gain score. Results expressed in terms of scale score points, scale score gains, or an average scale score may be more easily interpretable by a wider audience than results based on the theta scores.
- *preLAS* subtest raw number-right scores provide information on children's basic English proficiency. These scores may be of interest to users conducting research on children with limited English proficiency. However, because of the limited number of items included in these subtests, these scores do not represent a comprehensive measure of proficiency or of reading skills and knowledge. The primary purpose of fielding these subtests in the ECLS-K:2011 was so they could be used as an English language proficiency screener. The majority of children in the ECLS-K:2011 scored highly or near perfect on these subtests, which was expected given that the subtests came from a standardized assessment for preschoolers and the majority of ECLS-K:2011 children spoke English, even if it was not their primary home language. The *preLAS* scores are of limited value for children who were not English language learners. The IRT-based reading theta or scale scores, which are available for all children, should be used by analysts interested in performance on the reading assessment, regardless of a child's home language.
- EBRS raw number-right scores provide information on children's performance on the first 20 items administered to all children as part of the reading assessment routing test. These EBRS scores would be useful for someone with a specific analytic interest in the knowledge and skills covered in this particular item set, which are among the most basic knowledge and skills measured in the reading assessment. As with the *pre*LAS subtest items, children who were not English language learners tended to do well on this section of the assessment, and so these scores may be of limited value for them. Also, since these are raw scores, the difficulty of the items children answered correctly is not reflected in the score. A child who answered only the first 10 items

<sup>&</sup>lt;sup>4</sup> It is recommended that analysts review the distributions for normality. In assessments where the number of items or number of observations is low, normality of distributions may be affected. In the ECLS-K:2011, both the science and SERS distributions parted from normal, due to the limited number of items and observations, respectively.

correctly would have the same score as a child who answered 5 easier and 5 more difficult items correctly. The IRT-based reading theta or scale scores, which are available for all children, should be used by analysts interested in overall performance on the reading assessment, regardless of a child's home language.

EBRS/SERS common item raw number-right scores provide information on Spanish-speaking children's performance on 10 items that were administered in both English and Spanish. Researchers may find these scores useful in an analysis focusing on Spanish-speaking English language learners because the scores allow for a comparison of the number of correct responses in English with the number of correct responses in the child's primary home language. It is important to note that these items are direct translations from the existing English items to Spanish. They have not been scaled together, and the item difficulties may not be exactly comparable from one language to the other. Although this is the case, the items have very limited language load, and expert reviewers selected items that translated easily and that could be expected to be roughly equivalent in difficulty in either language.

## 3.1.5 Analytic Considerations for Measuring Gains in the ECLS-K:2011

An important issue to be considered when analyzing achievement scores and gains is assessment timing: children's age at assessment, the date of assessment, and the time interval between assessments. Most sampled children were born throughout the second half of 2004 and first half of 2005, but their birth dates were not related to testing dates. As a result, children were tested at different developmental and chronological ages. Assessment dates ranged from August to December for the fall data collection, and from January to July for the spring round. Children assessed in December of their kindergarten year may be expected to have an advantage over children assessed in the first days or weeks of school. Substantial differences in intervals between assessments may also affect analysis of gain scores. Children assessed in September and June of kindergarten have more time to learn skills than children assessed in November and March. These differences in interval may or may not have a significant impact on analysis results. In designing an analysis plan, it is important to consider whether and how differences in ages, assessment dates, and intervals may affect the results, to look at relationships between these factors and other variables of interest, and to adjust for differences if necessary.

When using the IRT scale scores as longitudinal measures of overall growth, analysts should keep in mind that gains made at different points on the scale have qualitatively different interpretations. Children who made gains toward the lower end of the scale, for example in skills such as identifying letters and associating letters with sounds, are learning different skills than children who made gains at

the higher end of the scale, for example those who have gone from reading single words to reading sentences, although their gains in number of scale score points may be the same. Comparison of gains in scale score points is most meaningful for groups that started with similar initial status. One way to account for children's initial status is to include a prior round assessment score as a control variable in an analytic model. For example, the fall scale score could be included in a model using the spring scale score as the outcome.

#### 3.1.6 Reliability of the ECLS-K:2011 Scores

Reliability statistics assess consistency of measurement, or the extent to which test items in a set are related to each other and to the score scale as a whole. For tests of equal length, reliability estimates can be expected to be higher for sets of items that are closely related to the underlying construct than for tests with more diversity of content. Conversely, for tests with similar levels of diversity in content, reliabilities tend to be higher for longer tests compared to shorter tests. In general, the domain with the most diverse content in the ECLS-K:2011 assessment, science, had lower reliability coefficients than reading and mathematics.<sup>5</sup> Reliabilities were highest for the scores derived from the largest number of test items, namely the IRT ability estimates, which are based on all items taken by each child. Reliabilities were lowest for the scores based on the fewest items, namely the raw number-right scores. Reliability statistics appropriate for each type of score were computed for each subject area for fall and spring kindergarten.

For the IRT-based scores, the reliability of the overall ability estimate, theta, is based on the variance of repeated estimates of theta for each individual child compared with total sample variance. These reliabilities, ranging from .75 to .99 for the reading, mathematics, science, and SERS assessments also apply to the scores derived from the theta estimate, namely, the IRT scale scores. Alpha coefficients for the *pre*LAS Simon Says and Art Show, EBRS, and EBRS/SERS Common Raw Number Right scores ranged from .69 to .97 for the kindergarten assessment forms. The coefficient for the EBRS/SERS Common Raw Number Right EBRS score for the spring of kindergarten is relatively low due to the low number of observations and items in the set.

<sup>&</sup>lt;sup>5</sup> Diversity in the science assessment is by design. To develop a measure of children's expected ability levels in kindergarten science required assessing an assortment of items from Earth, physical, and life science strands. Although the reading and mathematics domains also include differing content strands, the relationships between the content strands are less in the diverse categories in science than in reading and mathematics.

Tables 3-5 through 3-6 present the reliability statistics for all of the assessment scores in kindergarten.

Table 3-5.Reliability of IRT-based scores: IRT theta and scale scores (overall ability estimates), by<br/>round of data collection and domain: School year 2010–11

	Number of	Fall	Spring
Domain	items	kindergarten	kindergarten
Reading	83	0.95	0.95
SERS	31	0.99	0.99
Mathematics	75	0.92	0.94
Science	20	Ť	0.75

† Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

# Table 3-6.Reliability of raw number right scores (alpha coefficient), by round of data collection and<br/>domain: School year 2010–11

Domain	Number of items	Fall kindergarten	Spring kindergarten
preLAS Simon Says Raw Number Right	10	.85	.79
preLAS Art Show Raw Number Right	10	.86	.82
preLAS Total Raw Number Right	20	.91	.89
EBRS Raw Number Right	20	.87	.97
EBRS/SERS Common Raw Number Right, EBRS	10	.80	.69
EBRS/SERS Common Raw Number Right, SERS	10	.87	.84

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

## 3.1.7 Validity of the ECLS-K:2011 Scores

Evidence for the validity of the direct cognitive assessments was derived from several sources. A review of national and state performance standards, comparison with state and commercial assessments, and the judgments of curriculum experts all informed the development of the test specifications. For the kindergarten assessments, national and state performance standards in each of the domains were examined. The reading specifications are based on the NAEP Reading Frameworks for 2009, with the addition of basic reading skills and vocabulary categories suitable for the earlier grades. Although the NAEP assessments are administered starting in fourth grade, the reading specifications were extrapolated down to kindergarten, based on current curriculum standards from Texas, California, New

Jersey, Florida, and Virginia. The mathematics test specifications are based on the framework developed for the ECLS-K assessments for kindergarten, first grade, and third grade, which were based on the 1996 NAEP mathematics frameworks and extended down to earlier grades. In science, the 2009 standards of six states (Arizona, California, Florida, New Mexico, Texas, and Virginia) were reviewed to find a commonality of topics that are taught in kindergarten.

Pools of potential assessment items were developed for each content domain based on the framework or standards pertinent to the domain. An expert panel of school educators, including curriculum specialists in the subject areas, then examined the pool of items for content and framework strand design, accuracy, non-ambiguity of response options, and appropriate formatting. The items were included in a field test and better-performing items were selected for the final assessment battery.

#### **3.2 Direct Cognitive Assessment: Executive Function**

Executive functions are interdependent processes that work together to regulate and orchestrate cognition, emotion, and behavior and that help a child to learn in the classroom. Measures of executive function were included in the kindergarten direct child assessment battery to assess children's cognitive flexibility and working memory: the Dimensional Change Card Sort (Zelazo 2006) and the Numbers Reversed subtest of the Woodcock-Johnson III Tests of Cognitive Abilities (Mather and Woodcock 2001), respectively.

#### 3.2.1 Dimensional Change Card Sort

The Dimensional Change Card Sort is used to collect information on children's cognitive flexibility. In this task, children are asked to sort a series of 22 picture cards according to different rules. Each card has a picture of either a red rabbit or a blue boat. The children are asked to sort each card into one of two trays depending on the sorting rule they have been told. One tray has a picture of a red boat and the other has a picture of a blue rabbit. For the first set of items, the Color Game (each set is referred to as a game), the rule is to sort the cards by color (i.e., red or blue). For example, a blue boat card would be sorted into the blue rabbit tray. In the second game, the Shape Game, the rule is to sort the cards by shape (i.e., rabbit or boat). For example, a red rabbit card would be sorted into the blue rabbit tray. If the child correctly sorts four of the six cards in the Shape Game, then he or she moves on to the third game:

the Border Game. In the Border Game the sorting rule (by color or by shape) depends on whether or not the card has a black border around the edges. If the card has a border, the child is to sort by color; if there is no border on the card, the child is to sort by shape.

Item-level data for the Dimensional Change Card Sort are provided on the base-year data file. There are six variables with results for the color game, six variables with results for the shape game, and six variables with results for the Border Game. There were four practice items administered to children, but the results from these practice items are not included on the data file. The item-level data for the color and shape games are scored "Correct" (i.e., card sorted into the correct tray according to the sorting rule) or "Incorrect" (i.e., card sorted into the incorrect tray). There is a third score provided for the Border Game, "Not administered"; this code indicates that the child was not administered the item because he or she did not answer enough items correctly to advance to this item in the assessment. The "Not administered" code is different than a system missing code in that only those children who were administered the Dimensional Change Card Sort could have a "Not administered" code. If a child was not administered the Dimensional Change Card Sort at all, that case would have a missing code for the scores. Variable names for the item-level data from the fall kindergarten assessments begin with "C1," and the variable names for the item-level data from the spring kindergarten assessments begin with "C2." The Dimensional Change Card Sort was administered in Spanish for children routed through the Spanish assessment. Data from English and Spanish administrations are combined into the same item-level variables.

Using scoring rules provided by the developers, two scale scores were developed from the Dimensional Change Card Sort data collected in the kindergarten rounds of data collection: the post-switch score and the Border Game score. The post-switch score is the number of cards the child correctly sorted by shape (i.e., after switching from sorting by color to sorting by shape), not including the practice trials. The Border Game score is the number of cards the child correctly sorted when the sorting rule was determined by the presence (or absence) of a border around the card.<sup>6</sup>

The post-switch score has a relatively high mean (table 3-7), indicating the majority of children did well on the portion that asked them to sort by shape. According to the Dimensional Change Card Sort developer, given this pattern in the data, researchers should create a single Dimensional Change

<sup>&</sup>lt;sup>6</sup> Children who did not correctly sort at least four of the six cards in the Shape Game were not administered the Border Game and do not have a Border Game score. As a result, the *n* with valid (i.e., non-missing) data for the post-switch score is different than the *n* with valid (i.e., non-missing) data for the Border Game score. For more information on the administration procedures and the scores for the Dimensional Change Card Sort, see *The Dimensional Change Card Sort (DCCS): A Method of Assessing Executive Function in Children* (Zelazo 2006).

Card Sort composite score by summing the post-switch score and the Border Game score and use that combined score in analyses. Before creating this combined score, researchers should be sure to recode the reserve codes appropriately (section 7.3 has more information on the reserve, or missing value, codes used in the data file). When recoding reserve codes, inapplicable (-1) codes on the Border Game should be recoded as 0, because an inapplicable on the Border Game score indicates that a child did not complete enough Shape Game (i.e., post-switch) items correctly to advance to the Border Game, and therefore received 0 of the Board Game items correct.

The variable names, descriptions, value ranges, weighted means, and standard deviations for the fall kindergarten and spring kindergarten DCCS scores are shown in table 3-7.

Table 3-7.	Dimensional Change Card Sort variable names, descriptions, value ranges, weighted means,
	and standard deviations: School year 2010–11
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Variable name	Description	п	Range of possible values	Weighted mean	Standard deviation
X1CSPSSC	X1 Card Sort Post-switch score	15,604	0–6	5.23	1.679
X1CSBGSC	X1 Card Sort Border Game score	13,279	0–6	3.70	1.185
X2CSPSSC	X2 Card Sort Post-switch score	17,150	0–6	5.55	1.210
X2CSBGSC	X2 Card Sort Border Game score	15,688	0–6	4.10	1.314

NOTE: Estimates weighted by W1C0.

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SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

## 3.2.2 Numbers Reversed

This measure assesses the child's working memory. It is a backward digit span task that requires the child to repeat an orally presented sequence of numbers in the reverse order in which the numbers are presented. For example, if presented with the sequence "3...5," the child would be expected to say "5...3." Children are given 5 two-number sequences. If the child gets three consecutive two-number sequences incorrect, then the Numbers Reversed task ends. If the child does not get three consecutive two-number sequences incorrect, the child is then given 5 three-number sequences. The sequence becomes increasingly longer, up to a maximum of eight numbers, until the child gets three consecutive number sequences incorrect (or completes all number sequences).

Item-level data for the Numbers Reversed subtask are provided in the base-year data file. The maximum number of items any child was administered in either the fall or spring kindergarten collections was 30 items (5 two-digit number items; 5 three-digit number items; 4 four-digit number items; 4 five-digit number items; 4 six-digit number items; 4 seven-digit number items; 4 eight-digit number items). Each item is scored "Correct" (i.e., the child correctly repeated the number sequence in reversed order), "Incorrect" (i.e., the child did not correctly repeat the number sequence in reversed order), or "Not administered" (i.e., the child was not administered the item because he or she did not answer enough items correctly to advance to this item). The "Not administered" code is different than a system missing code in that only those children who were administered the Numbers Reversed subtask could have a "Not administered" code. If a child was not administered the Numbers Reversed subtask at all, that case would have a missing code for the Numbers Reversed scores. Variable names for the itemlevel data from the fall kindergarten assessments begin with "C1," and variable names for the item-level data from the spring kindergarten assessments begin with "C2." Variable descriptions for these items indicate the length of the digit-sequence (e.g., C1 Numbers Reversed Two-digit sequence #1). Numbers Reversed was administered in Spanish for children routed through the Spanish assessment. Data from English and Spanish administrations are combined into the same item-level variables.

In addition to the item-level data, three scores developed using guidelines from the publisher scoring materials are included in the data file for Numbers Reversed. Before analyzing the Numbers Reversed data, it is important that researchers understand the characteristics of these scores and how these characteristics may affect the analysis and interpretation of the Numbers Reversed data in the context of the ECLS-K:2011. It is strongly recommended that even researchers familiar with the Numbers Reversed task review the information presented here to assist in their analysis and interpretation of the findings.

The three scores developed using publisher guidelines are a W score, a standard score, and percentile rank. Depending on the research question and analysis being conducted, one of the scores may be more preferable than another. For example, the W score may be best for a longitudinal analysis, whereas the percentile rank and standardized score may be better suited for an analysis focusing on one point in time. The descriptions below provide more information about which score may be better suited for a given analysis.<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> More information on these publisher scores can be found in the *Woodcock-Johnson III Test of Achievement Examiner's Manual: Standard and Extended Batteries* (Mather and Woodcock 2001).

The W score, a type of standardized score, is a special transformation of the Rasch ability scale and provides a common scale of equal-intervals that represents both a child's ability and the task difficulty. The W scale is particularly useful for the measurement of growth and can be considered a growth scale. Typically, the W scale has a mean of 500 and standard deviation of 100. Furthermore, the publisher of the Woodcock-Johnson III (WJ III) has set the mean to the average of performance for a child of 10 years, 0 months. This means that it would be expected that most children younger than 10 years, 0 months would obtain W scores lower than the mean, and most older children would be expected to have scores above the mean. Also, as children develop with age, it would be expected that the child's W score would increase to reflect growth. For example, when a child's W-ability score increases from 420 to 440, this indicates growth, and this would be the same amount of growth in the measured ability as any other student who gained 20 W points elsewhere on the measurement scale.

As mentioned above, the W score is an equal-interval scale, suited for analyses such as correlations and regressions. Higher W scores indicate that a child provided more correct responses and generally indicate that a child was able to correctly respond to at least some longer-number sequences. The W score accounts for only the total number of administered sequences answered correctly and does not reflect the pattern of responses, meaning the W score does not indicate how many of each length number sequence the child answered correctly. As noted above, the data file includes item-level data that can be used to examine patterns of response.

The W score for each child in the ECLS-K:2011 was determined using norming data provided by the publisher. More specifically, a sample child was assigned the W score from the publisher norming data that was associated with the child's raw number-right score, the child's age (in months), and the language of administration. Norming data were provided separately for English and Spanish administrations of the task. Publisher materials indicate that the W scores earned on English administrations of the Numbers Reversed task are comparable to W scores earned on Spanish administrations of the task; however, differences related to precision of measurement in the norming samples result in different W scores for the same raw-number right score depending on the language of administration. For example, the lowest earnable W score on the English administration of the Numbers Reversed task is 403 (equivalent to a raw score of 0), and the lowest earnable W scores between English and Spanish administration is largest at the lower end of the W distribution, the difference occurs along the entirety of the W distribution. For example, a raw score of 11 corresponds to a W score of 496 in the English administration norming data and a W score of 494 in the Spanish administration norming data. The data file includes one *W* score variable per round of data collection that contains data for all children administered the Numbers Reversed task, regardless of the language of administration. Researchers who want to account for language of administration in their analyses can use the variables X1FLSCRN and X2FLSCRN, which are also on the data file, to identify which cases were administered Numbers Reversed in English and which cases were administered Numbers Reversed in Spanish.

Although the W score is reflective of the average performance of 10-year-olds, while the ECLS-K:2011 children were in kindergarten in the base-year collection, it is included in the data file because it sets a baseline that can be used to measure changes in children's working memory longitudinally across all rounds of the study. Also, it will facilitate comparisons of the ECLS-K:2011 data with data from other studies that include the Numbers Reversed task. Users should keep in mind that most ECLS-K:2011 sample children were 5 or 6 years old during the kindergarten data collections and that the W scores compare their performance to that of 10-year-olds. As a result, W scores from the ECLS-K:2011 sample appear to show that the ECLS-K:2011 children demonstrated below average performance on this task.

A score of 403 (393 for Spanish) is potentially a meaningful baseline value for the ability level of children who are unable to answer any items correctly. Over time, as children develop more ability that is measureable by the WJ III Numbers Reversed task, the study will be able to compare their baseline score (fall kindergarten and/or spring kindergarten WJ III Numbers Reversed W score) with their scores across future administrations of the task. However, researchers should understand that a score of 0 is an imprecise measure of children's ability in the area of working memory, because it is unknown how close a child was to getting at least one answer correctly. In the fall of kindergarten approximately 40 percent of students did not demonstrate sufficient skills as measured by this assessment to score above the lowest scalable score (403 for English assessment and 393 for Spanish assessment). In the spring of kindergarten, approximately 20 percent of students did not score above the lowest scalable score (403 for English, 393 for Spanish). Another factor that may contribute to the large number of children scoring 403 (and 393 for Spanish) is that some ECLS-K:2011 assessors did not properly administer the practice items, which may have resulted in some children never fully understanding what they were being asked to do during the Numbers Reversed task. During field observations of the assessors, it was noted that when children did not correctly answer the first practice item, there were inconsistencies in the administration of additional practice items. It is not possible to determine the extent to which improper administration of the practice items affected the results. However, readers should keep in mind that this may have affected performance for some but not all

children. In analysis, researchers need to decide how to handle the 403 (393 for Spanish) scores; the decision for how to do so is left up to the analyst based on his or her analytic goals. More information about the Numbers Reversed scoring and data can be found in the *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), Kindergarten Psychometric Report* (Najarian et al. forthcoming).

Both the *standard score* and the *percentile score*, which indicate children's status relative to their peers, are age-normed transformations of the data. That is, both of these scores are relative to <u>same-aged</u> subjects in the Woodcock-Johnson III norming sample (for more information on the norming sample, please see the *ECLS-K:2011 Kindergarten Psychometric Report* [Najarian et al. forthcoming]). The standard score created by the publisher has a mean of 100 and a standard deviation of 15. The score is a linear transformation of a z score (mean of 0 and a standard deviation of 1), which is derived from a person's achieved *W* score. The percentile rank describes performance on a scale from 1 to 99 relative to the performance of subjects in the Woodcock-Johnson III norming sample that is at the same age as the ECLS-K:2011 subject.

Like the *W* score, the standard scores and the percentile scores in the data file contain data from both the English and Spanish administrations of the Numbers Reversed task. Standard scores and percentile scores are a function of the child's age at assessment. The publisher's scoring protocols result in standard and percentile scores that extend to slightly lower ages for children who were administered the task in Spanish compared to children who were administered the task in English, again due to differences in the precision of measurement within the norming samples.. Children 62 months and younger who were administered the Numbers Reversed task in English and who earned a raw score of 0 or 1 have a *W* score but do not have a standard score or percentile score (*W* scores are a function of the number correct and not a function of age). However, all children who were administered this task in Spanish, including those aged 62 months and younger have a *W* score, a standard score, and a percentile score, regardless of their raw score. Again, there are variables in the data file indicating language of administration (X1FLSCRN) and X2FLSCRN) that analysts may want to include in their analytic models.

Standard scores and percentile ranks lend themselves to different interpretations. Standard scores and percentile ranks are *not* essentially the same. Standard scores are deviation-based scores, based upon a mean and standard deviation that remains constant across the entire range. They are interval data, where values are separated by a constant interval that maintains the same meaning across the full range. Percentile ranks are neither interval data nor constant and cannot be used interchangeably with

standardized scores. As such, standard scores are most appropriately used for comparisons across children and between groups; *W* scores (also a deviation-based score metric) are most appropriately used to look at growth over time, where age-normed standard scores may remain relatively constant with an ageexpected rate of growth. Percentiles are less ideal for longitudinal analyses; although they can be used to examine relative rank order consistency across time periods, the *W* scores would be better to assess change and/or stability across time.

The variable names, descriptions, value ranges, weighted means, and standard deviations for the fall kindergarten and spring kindergarten Numbers Reversed scores are shown in table 3-8. In looking at the weighted means, researchers should keep in mind that the *W* score, the standard score, and the percentile score are age-normed scores, with the *W* score normed to the average 10–year-old and the standard and percentile scores normed to same-age peers in the WJ III norming sample. The low mean for the *W* score in the ECLS-K:2011 may be attributed to the derivation of the score being a comparison to the average 10-year-old or to differences between the ECLS-K:2011 population and the WJ III norming sample.<sup>8</sup> The standard score and the percentile rank also show a lower mean in the ECLS-K:2011, which may also be attributable to differences between the ECLS-K:2011 population and the WJ III norming sample.

 Table 3-8.
 Numbers Reversed variable names, descriptions, value ranges, weighted means, and standard deviations: School year 2010–11

Variable name	Description	п	Range of possible values	Weighted mean	Standard deviation
X1NRWABL	X1 Numbers Reversed W-Ability				
	Score	15,598	393-581	432.56	30.028
X1NRSSCR	X1 Numbers Reversed Standard Score	14,444	45-175	93.10	16.511
X1NRPERC	X1 Numbers Reversed Percentile Rank	14,444	0-100	37.89	31.787
X2NRWABL	X2 Numbers Reversed W-Ability				
	Score	17,147	393-572	449.50	30.412
X2NRSSCR	X2 Numbers Reversed Standard Score	17,124	40-175	94.92	17.017
X2NRPERC	X2 Numbers Reversed Percentile Rank	17,124	0-100	42.44	30.970

NOTE: Estimates weighted by W1C0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

<sup>&</sup>lt;sup>8</sup> For more information on the Woodcock-Johnson III norming sample, please see the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11, Kindergarten Psychometric Report (Najarian et al. forthcoming).

## 3.3 Indirect Cognitive Assessment, the Academic Rating Scale

The Academic Rating Scale was developed for the ECLS-K to obtain teachers' evaluations of children's academic achievement in three domains: language and literacy, science, and mathematical thinking. The ECLS-K:2011 fielded the Academic Rating Scale developed for the ECLS-K with some modifications to the item text. Teachers rated the child's skills, knowledge, and behaviors on a scale from "not yet" to "proficient" (table 3-9). If a skill, knowledge, or behavior had not been introduced in the classroom yet, the teacher was instructed to mark that item as NA (not applicable or skill not yet taught).

 Table 3-9.
 Academic Rating Scale response scale: School year 2010–11

Value	Response	Description
1	Not yet	Child has not yet demonstrated skill, knowledge, or behavior.
2	Beginning	Child is just beginning to demonstrate skill, knowledge, or behavior but does so very inconsistently.
3	In progress	Child demonstrates skill, knowledge, or behavior <u>with some regularity</u> but varies in level of competence.
4	Intermediate	Child demonstrates skill, knowledge, or behavior with increasing regularity and average competence but is not completely proficient.
5	Proficient	Child demonstrates skill, knowledge, or behavior <u>competently and consistently</u> .
NA	Not applicable or skill not yet taught	Skill, knowledge, or behavior has <u>not been introduced</u> in classroom setting.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

The Academic Rating Scale was designed both to overlap and to augment the information gathered through the direct cognitive assessment battery. Although the direct and indirect instruments measure children's skills and behaviors within the same broad curricular domains with some intended overlap, several of the constructs they were designed to measure differ in significant ways. Most importantly, the Academic Rating Scale includes items designed to measure both the process and products of children's learning in school, whereas the direct cognitive battery is more limited. Because of time and space limitations, the direct cognitive assessment battery is less able to measure the process of children's thinking, including the strategies they use to read, solve mathematical problems, or investigate a scientific phenomenon. Item-level data from the Academic Rating Scale are included on the data file along with other child-level teacher questionnaire data. Variable names for the item-level data from the fall kindergarten child-level teacher questionnaire begin with "T1," and variable names for the item-level data from the spring kindergarten child-level teacher questionnaire begin with "T2."

## 3.4 Teacher-Reported Social Skills

In both the fall and spring kindergarten collections, teachers reported how often their ECLS-K:2011 students exhibited certain social skills and behaviors using a four-option frequency scale ranging from "Never" to "Very Often." Teachers also had the option of indicating that they had not had an opportunity to observe the described behavior for the child being asked about. The items tapping children's social skills and behaviors are based on items from the Social Skills Rating System (NCS Pearson 1990)<sup>9</sup> and included in the self-administered child-level teacher questionnaire. The social skills battery includes some items taken verbatim from the SRSS, some items that are modifications of original SRSS items, and some items that measure the same kinds of skills and behaviors captured in the SRSS but use wording developed specifically for the ECLS studies. Chapter 2, section 2.1.3 has additional information on the teacher questionnaires.

Four social skill scales were developed based on teachers' responses to these questionnaire items. The score on each scale is the mean rating on the items included in the scale (the category "No opportunity to observe" is treated as missing data and not included in the derivation of these scales). The four teacher scales are as follows: self-control (4 items), interpersonal skills (5 items), externalizing problem behaviors (5 items), and internalizing problem behaviors (4 items). A score was computed when the respondent provided a rating on at least a minimum number of the items that composed the scale. The minimum number of items that were required to compute a score were as follows: self-control (3 out of 4 items), interpersonal skills (4 out of 5 item), externalizing problem behaviors (4 out of 5 items), and internalizing problem behaviors (4 out of 5 items), and internalizing problem behaviors (3 out of 4 items). Higher scores indicate that the child exhibited the behavior represented by the scale more often (e.g., higher self-control scores indicate that the child exhibited behaviors indicative of self-control more often; higher interpersonal skills scores indicate that the child exhibited the child interacted with others in a positive way more often). Variable names for the fall kindergarten and spring kindergarten teacher scale scores, descriptions, value ranges, weighted means, and standard deviations for these scales are shown in table 3-10. Data for the individual items contributing to each scale are not included in the data file due to copyright restrictions.

<sup>&</sup>lt;sup>9</sup> The Social Skills Rating System is a copyrighted instrument (1990 NCS Pearson) and has been adapted with permission.

	means, and standa	ard deviations: Schoo	ol year 2010–	-11			
					Range of	Weighted	Standard
Variable name	Description		1	п	possible values	mean	deviation

13,550

13,708

14,385

14,239

15,796

15,799

15,903

1 - 4

1-4

1 - 4

1 - 4

1 - 4

1–4

1 - 4

3.07

2.98

1.61

1.47

3.17

3.13

1.64

.629

.639

.631

.494

.637

.650

.639

X1 Teacher Report Self-Control

X2 Teacher Report Self-Control

Behaviors

Behaviors

Behaviors

X1 Teacher Report Interpersonal Skills

X1 Teacher Report Externalizing Problem

X1 Teacher Report Internalizing Problem

X2 Teacher Report Interpersonal Skills

X2 Teacher Report Externalizing Problem

X2 Teacher Report Internalizing Problem

**X1TCHCON** 

X1TCHPER

X1TCHEXT

X1TCHINT

X2TCHCON

X2TCHPER

X2TCHEXT

X2TCHINT

Table 3-10.Teacher-reported social skills scales variable names, descriptions, value ranges, weighted<br/>means, and standard deviations: School year 2010–11

Behaviors	15,865	1–4	1.51	.498
NOTE: The category "No opportunity to observe" is treated as missing	g data and not included in the deri	vation of these sca	ales. Estimates w	reighted
by W1C0. Items contributing to the teacher-reported social skill sca	ales were adapted with permission	on from the Soci	al Skills Rating	System
(©1990 NCS Pearson)				

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 3-11 presents the internal consistency reliability estimates of the self-control, interpersonal skills, externalizing problem behaviors, and internalizing problem behaviors scales derived from information reported by the teacher.

Table 3-11.	Teacher-reported social skill	scales reliability estimates	: School year 2010–11
14010 5 111.	reaction reported social sittin	beares remainly estimates	

Variable name	Description	Number of items	Reliability Coefficient
X1TCHCON	X1 Teacher Report Self-Control	4	.81
X1TCHPER	X1 Teacher Report Interpersonal Skills	5	.86
X1TCHEXT	X1 Teacher Report Externalizing Problem Behaviors	5	.88
X1TCHINT	X1 Teacher Report Internalizing Problem Behaviors	4	.79
X2TCHCON	X2 Teacher Report Self-Control	4	.82
X2TCHPER	X2 Teacher Report Interpersonal Skills	5	.87
X2TCHEXT	X2 Teacher Report Externalizing Problem Behaviors	5	.89
X2TCHINT	X2 Teacher Report Internalizing Problem Behaviors	4	.78

NOTE: Items contributing to the teacher-reported social skill scales were adapted with permission from the Social Skills Rating System (SSRS) (©1990 NCS Pearson).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

## 3.5 Parent-Reported Social Skills

In both the fall and spring kindergarten parent interviews, parents were asked to report how often their child exhibited certain social skills and behaviors using the same frequency scale described above for the teacher-reported social skills items. These parent items also are based on items from the Social Skills Rating System. Chapter 2, section 2.1.2 has additional information on the parent interviews.

Four social-skill scales were developed based on parents' responses to these interview questions. The score on each scale is the mean rating on the items included in the scale. The four social-skill parent scales are as follows: self-control (5 items), social interaction (3 items), sad/lonely (4 items), and impulsive/overactive behaviors (2 items). A score was computed when the respondent provided a rating on at least a minimum number of the items that composed the scale. The minimum number of items that were required to compute a score were as follows: self-control (4 out of 5 items), social interaction (2 out of 3 item), sad/lonely (3 out of 4 items), and impulsive/overactive (2 out of 2 items). Higher scores indicate that the child exhibited the behavior represented by the scale more often (e.g., higher self-control scores indicate that the child exhibited behaviors indicative of self-control more often; higher scores on the social interaction scale indicate that the child interacted with others in a positive way more often). The variable names, descriptions, value ranges, weighted means, and standard deviations for the fall kindergarten and spring kindergarten parent scores are shown in table 3-12. Data for the individual items contributing to each scale are not included in the data file due to copyright restrictions.

Variable name	Description	п	Range of possible values	Weighted mean	Standard deviation
X1PRNCON	X1 Parent Report Self-Control	13,205	. 1–4	2.89	.523
X1PRNSOC	X1 Parent Report Social Interaction	13,232	1–4	3.44	.559
X1PRNSAD	X1 Parent Report Sad/Lonely	13,209	1–4	1.48	.376
X1PRNIMP	X1 Parent Report	,			
	Impulsive/Overactive	13,132	1–4	2.05	.676
X2PRNCON	X2 Parent Report Self-Control	13,254	1–4	2.95	.505
X2PRNSOC	X2 Parent Report Social Interaction	13,274	1–4	3.45	.543
X2PRNSAD	X2 Parent Report Sad/Lonely	13,226	1–4	1.47	.379
X2PRNIMP	X2 Parent Report				
	Impulsive/Overactive	13,154	1–4	1.92	.679

 Table 3-12.
 Parent-reported social skills scales variable names, descriptions, value ranges, weighted means, and standard deviations: School year 2010–11

NOTE: Estimates weighted by W1C0. Items contributing to the parent-reported social skills scales were adapted with permission from the Social Skills Rating System (SSRS) (©1990 NCS Pearson).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 3-13 presents the internal consistency reliability estimates of the self-control, social interaction, and sad/lonely scales derived from information reported by the parent. Reliability statistics are not reported for the impulsive/overactive scale; it is computed from only two parent-reported items, which is not enough to calculate an alpha reliability.

Table 3-13.	Parent-reported s	ocial skills scales	reliability estima	tes: School year 2010–11

Variable name	Description	Number of items	Reliability Coefficient
X1PRNCON	X1 Parent Report Self-Control	5	.73
X1PRNSOC	X1 Parent Report Social Interaction	3	.68
X1PRNSAD	X1 Parent Report Sad/Lonely	4	.56
X2PRNCON	X2 Parent Report Self-Control	5	.72
X2PRNSOC	X2 Parent Report Social Interaction	3	.67
X2PRNSAD	X2 Parent Report Sad/Lonely	4	.58

NOTE: Items contributing to the parent-reported social skills scales were adapted with permission from the Social Skills Rating System (SSRS) (©1990 NCS Pearson).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

#### **3.6** Teacher-Reported Approaches to Learning Items and Scale

The child-level teacher questionnaire included seven items, referred to as "Approaches to Learning" items, that asked the teachers to report how often their ECLS-K:2011 students exhibited a selected set of learning behaviors (keeps belongings organized; shows eagerness to learn new things; works independently; easily adapts to changes in routine; persists in completing tasks; pays attention well; and follows classroom rules).<sup>10</sup> These items were presented in the same item set as the social skills items adapted from or based on the Social Skills Rating System (described above in section 3.4), and teachers used the same frequency scale to report how often each child demonstrated the behaviors described. The Approaches to Learning scale score is the mean rating on the seven items included in the scale (the category "No opportunity to observe" is treated as missing data and not included in the derivation of these scales). A score was computed when the respondent provided a rating on at least 4 of the 7 items that composed the scale. Higher scale scores indicate that the child exhibited positive learning behaviors more often. The variable names, descriptions, value ranges, weighted means, and standard deviations for the fall kindergarten and spring kindergarten teacher Approaches to Learning scale scores

<sup>&</sup>lt;sup>10</sup> The Approaches to Learning teacher items were developed specifically for the ECLS-K; they are not taken from an existing source. These are the same items that were fielded as part of what was called the Teacher Social Rating Scale in the ECLS-K. The first six items (i.e., keeps belongings organized; shows eagerness to learn new things; works independently; easily adapts to changes in routine; persists in completing tasks; pays attention well) were included in the Teacher Social Rating Scale of the kindergarten round in ECLS-K. The seventh item (i.e., follows classroom rules) was added in the first-grade round of ECLS-K.

are shown in table 3-14. The Approaches to Learning scale has a reliability estimate of .91 for each round of data collection. Additionally, the item-level data for the teacher-reported Approaches to Learning items are included on the data file along with the other child-level teacher questionnaire data. Variable names for the item-level data from the fall kindergarten child-level teacher questionnaire begin with "T1," and variable names for the spring kindergarten child-level teacher questionnaire begin with "T2."

Table 3-14.Teacher-reported Approaches to Learning scale variable names, descriptions, value ranges,<br/>weighted means, and standard deviations: School year 2010–11

			Range of	Weighted	Standard
Variable name	Description	n	possible values	mean	deviation
X1TCHAPP	X1 Teacher Report Approaches to Learning	14,770	1–4	2.93	.680
X2TCHAPP	X2 Teacher Report Approaches to Learning	15,978	1–4	3.09	.690

NOTE: The category "No opportunity to observe" is treated as missing data and not included in the derivation of these scales. Estimates weighted by W1C0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

## 3.7 Parent-Reported Approaches to Learning Items and Scale

The parent interview included six items, referred to as "Approaches to Learning" items, that asked parents to report how often their child exhibited learning behaviors (keep working at something until finished; show interest in a variety of things; concentrate on a task and ignore distractions; help with chores; eager to learn new things; creative in work and play).<sup>11</sup> These items were asked within the same set of items as the social skills items adapted from or based on the Social Skills Rating System (described above in section 3.5) in section SSQ (Social Skills, Problem Behaviors, and Approaches to Learning) of the parent interview, and parents used the same frequency scale to report how often their child demonstrated the behaviors described. The Approaches to Learning scale score is the mean rating on the six items included in the scale. A score was computed when the respondent provided a rating on at least 4 of the 6 items that composed the scale. Higher scale scores indicate that the child exhibited positive learning behaviors for the fall kindergarten and spring kindergarten parent Approaches to Learning scale scores are shown in table 3-15. The Approaches to Learning scale had a reliability estimate of .70 for the fall data collection and .72 for the spring data collection. Additionally, the item-level data for the parent reported Approaches to Learning items are included on the data file along with the other parent interview

<sup>&</sup>lt;sup>11</sup> The Approaches to Learning parent items were developed specifically for the ECLS-K; they are not taken from an existing source. These are the same items that were fielded as part of what was called the Parent Social Rating Scale in the ECLS-K.

data. Variable names for the item-level data from the fall parent interview begin with "P1," and variable names for the spring parent interview begin with "P2."

Table 3-15.	Parent-reported Approaches to Learning scale variable names, descriptions, value ranges,
	weighted means, and standard deviations: School year 2010-11

Variable name	Description		Range of	Weighted	Standard
		n	possible values	mean	deviation
X1PRNAPP	X1 Parent Report Approaches to Learning	13,220	1–4	3.18	.474
X2PRNAPP	X2 Parent Report Approaches to Learning	13,241	1–4	3.14	.485

NOTE: Estimates weighted by W1C0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011).

#### 3.8 Children's Behavior Questionnaire

The fall kindergarten and spring kindergarten child-level teacher questionnaires included twelve items from the Short Form of the Children's Behavior Questionnaire (Putnam and Rothbart 2006)<sup>12</sup> asking teachers to indicate how often their ECLS-K:2011 children exhibited certain social skills and behaviors related to inhibitory control and attentional focusing. Teachers were presented with statements about how the children might have reacted to a number of situations in the past 6 months and were asked to indicate how "true" or "untrue" those statements were about that child on a 7-point scale ranging from extremely untrue to extremely true, with a middle option of "neither true nor untrue." If a statement or situation did not apply to that child, the teacher could indicate "not applicable."

The data file includes two scale scores: (1) attentional focus and (2) inhibitory control. The scale scores were developed based on guidelines from the publisher and included all 6 items from the Attentional Focusing subscale and all 6 items from the Inhibitory Control subscale from the Short Form of the Children's Behavior Questionnaire. The score on each scale is the mean rating on the items included in the scale. A score was computed when the respondent provided a rating on at least 4 of the 6 items that composed the scale. Higher scale scores on the attentional focus scale indicate that the child exhibited more behaviors that demonstrate the ability to focus attention on cues in the environment that are relevant to the task in hand. Higher scale scores on the inhibitory control scale indicate that the child exhibited more behaviors that demonstrate the ability to resist a strong inclination to do one thing and instead to do what is most appropriate or needed. The variable names, descriptions, value ranges,

<sup>&</sup>lt;sup>12</sup> The Children's Behavior Questionnaire is a copyrighted instrument and has been used with permission.

weighted means, and standard deviations for these scales are shown in table 3-16. The attentional focus scale has a reliability estimate of .87 for each round of data collection. The inhibitory control scale also has a reliability estimate of .87 for each round of data collection. Data for the individual Children's Behavior Questionnaire items are not included in the data file due to copyright restrictions.

Table 3-16.	Children's Behavior Questionnaire variable names, descriptions, value ranges, weighted
	means, and standard deviations: School year 2010-11

Variable name	Description	n	Range of possible values	Weighted mean	Standard deviation
X1ATTNFS	X1 Teacher Report Attentional Focus	14,562	1–7	4.68	1.323
X1INBCNT	X1 Teacher Report Inhibitory Control	14,556	1–7	4.88	1.291
X2ATTNFS	X2 Teacher Report Attentional Focus	15,937	1–7	4.90	1.329
X2INBCNT	X2 Teacher Report Inhibitory Control	15,925	1–7	5.06	1.292

NOTE: Estimates weighted by W1C0. Items contributing to these scales come from the Children's Behavior Questionnaire (Putnam and Rothbart 2006).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

## 3.9 Student-Teacher Relationship Scale

The Student-Teacher Relationship Scale (Pianta and Steinberg 2001) is a 15-item, teacherreported measure of closeness and conflict between the teacher and child. As part of the spring kindergarten child-level teacher questionnaire, the teacher was presented with 15 descriptive statements about his or her relationship with the ECLS-K:2011 child and asked to indicate the degree to which each statement applied to their relationship using a 5-point scale ranging from "definitely does not apply" to "definitely applies."

Two scales were developed based on guidelines from the publisher: closeness and conflict. The closeness scale score is the average rating on the seven items included in the scale, while the conflict scale score is the average rating on the eight items included in that scale. A score was computed when the respondent provided a rating on at least 5 of the 7 or 8 items that composed the scales. The closeness subscale is a measure of the affection, warmth, and open communication that the teacher experiences with the student. The conflict subscale is a measure of the teacher's perception of the negative and conflictual aspects of the teacher's relationship with the student. High scale scores on the closeness scale indicate that the teacher perceived he or she had a close relationship with the child. High scale scores on the conflict scale indicate that the teacher perceived his or her relationship with the child to be characterized

by conflict. The variable names, descriptions, value ranges, weighted means, and standard deviations for these scales are shown in table 3-17. The conflict scale has a reliability estimate of .89 and the closeness scale also has a reliability estimate of .89. Data for the individual Student-Teacher Relationship Scale items are not included in the data file due to copyright restrictions.

Table 3-17.	Student-Teacher Relationship Scale variable names, descriptions, value ranges, weighted
	means, and standard deviations: School year 2010–11

			Range of	Weighted	Standard
Variable name	Description	n	possible values	mean	deviation
X2CLSNSS	X2 Teacher Report Closeness	15,962	1–5	4.36	.636
X2CNFLCT	X2 Teacher Report Conflict	15,960	1–5	1.63	.802

NOTE: Estimates weighted by W1C0. Items contributing to these scales come from the Student-Teacher Relationship Scale (Pianta and Steinberg 1992).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011, fall 2010 and spring 2011.

## 4. SAMPLE DESIGN AND SAMPLING WEIGHTS

The Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) will provide national data on children's characteristics as the children progress from kindergarten through the 2015–16 school year, when most of them will be in fifth grade. In the 2010–11 school year, the ECLS-K:2011 collected data from a nationally representative sample of 18,174 children enrolled in 968 schools.<sup>1</sup> This chapter describes the process used to select the sample for the study and provides information necessary to properly analyze the data that were collected.

## 4.1 Sample Design

The optimal sample design for collecting data to produce national child-level estimates is to sample children with probabilities that are approximately the same for each child. In most studies, this is achieved using a multi-stage sampling design that involves sampling primary sampling units (PSUs) and schools with probabilities proportional to the number of children and selecting a fixed number of children per school. Such a sampling procedure was used for the ECLS-K:2011. Additionally, a clustered design was used to minimize data collection costs, which are highly related to the dispersion of the children in the sample. Restricting data collection to a limited number of geographic areas and to as few schools as possible helps to minimize costs while still achieving an acceptable level of precision in the estimates produced with the data.

The sample for the ECLS-K:2011 was selected using a three-stage process. In the first stage of sampling, the country was divided into primary sampling units (PSUs), or geographic areas that are counties or groups of contiguous counties, and 90 PSUs were sampled for inclusion in the study. In the second stage, samples of public and private schools with kindergarten programs or that educated children of kindergarten age (i.e., 5-year-old children) in ungraded settings were selected within the sampled PSUs. Both PSUs and schools were selected with probability proportional to measures of size (defined as the population size) that took into account a desired oversampling of Asians, Native Hawaiians, and other Pacific Islanders (APIs).<sup>2</sup> In the third stage of sampling, children enrolled in kindergarten and 5-year–old children in ungraded schools or classrooms were selected within each sampled school.

<sup>&</sup>lt;sup>1</sup> This is the number of schools with at least one child or parent respondent at the end of the spring data collection; this number includes originally sampled schools and replacement schools. This number does not include transfer schools. Section 4.1.2 provides more information about these different groups of schools.

<sup>&</sup>lt;sup>2</sup> Asian, Native Hawaiian, and other Pacific Islander children were oversampled as one group, not as three groups that were distinct from one another.

## 4.1.1 Sampling PSUs

#### 4.1.1.1 Sampling Frame for PSUs

The first-stage sampling frame for the ECLS-K:2011 was a list of the 3,141 counties in the United States. To facilitate sampling with probability proportional to size (i.e., population), the frame included 2007 Census Bureau population estimates of the total population in each county, as well as estimates of the number of 5-year-old children, both overall and by race/ethnicity for each county. Since the only annual population data that are available from the Census Bureau at the county level are reported in 5-year age groups rather than by single year of age, the number of 5-year-old children was estimated by dividing the total population in the 5–9 age group by 5. Also, since 2007 population estimates by race/ethnicity are not available by age, the general population estimates by race/ethnicity were used to derive the approximate percent minority 5-year-old population by applying the percent minority in the county to 5-year-olds.

The 2007 Census Bureau population estimates were compared to estimates from the 2007 American Community Survey (ACS) for the 788 counties for which data from both sources were available. This comparison showed that estimates from the two sources were similar for most subgroups except for the American Indian/Alaska Native and the "other race" groups. The largest differences in the estimates produced from the two sources are for the American Indian and Alaska Native group, and these differences were attributed to small ACS sample sizes with large sampling errors. The difference in the estimates for the "other race" group was due to the difference in how the Census Bureau and ACS define the "other race" category. Census estimates for this category include the multi-race population and the other race groups, while ACS estimates include only the "other race" groups.

The county-level frame was used to form a list of PSUs from which a subset of PSUs would be sampled for the ECLS-K:2011. This was done either by treating larger counties in the frame as discrete PSUs or combining smaller contiguous counties into one PSU. The primary objective when forming PSUs was to maximize the within-PSU heterogeneity on the percent of 5-year-old Blacks in the PSU and the percent of 5-year-old Hispanics in the PSU, subject to the following constraints:

- that the minimum number of 5-year-olds in the PSU was 380;
- that the maximum distance between the farthest points within a PSU was 100 miles;

- that the PSU consisted of either all Metropolitan Statistical Area (MSA) or all non-MSA counties<sup>3</sup>; and,
- that the PSU was formed within a state boundary.

In the case of two large MSA PSUs, each PSU was divided into two smaller PSUs. One of the smaller PSUs contained a city, and the other smaller PSU contained the remaining areas within the PSU. The 2007 population estimate for the smaller PSU containing the city was obtained from the 2007 Census Bureau population estimates place-level file; the estimate for the smaller PSU without the city then was obtained by subtraction.

Table 4-1 shows the numbers of PSUs by MSA status and census region. All 3,141 counties are accounted for in the 1,714 PSUs.

Table 4-1.	Number of PSUs by	y census region and MSA status

Census region <sup>1</sup>	Non-MSA <sup>2</sup>	$MSA^2$	Total
Total	934	780	1,714
Northeast	74	119	193
Midwest	268	206	474
South	466	358	824
West	126	97	223

<sup>1</sup> Northeast includes CT, MA, ME, NH, NJ, NY, PA, RI, and VT; Midwest includes IA, IL, IN, KS, MI, MN, MO, ND, NB, OH, SD, and WI; South includes AL, AR, DE, FL, GA, KY, MD, MS, LA, NC, OK, SC, TN, TX, VA, WV, and the District of Columbia; and West includes AK, AZ, CA, CO, HI, ID, MT, NM, , NV, OR, UT, WA, and WY.

<sup>2</sup> Metropolitan Statistical Area (MSA) is a geographic entity designated as one or more counties in a metropolitan area, except in New England (CT, MA, ME, NH, RI, VT), where MSA is defined in terms of county subdivisions. Non-MSA designates one or more counties not in a metropolitan area. MSA and non-MSA are as defined by the Bureau of the Census.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

### 4.1.1.2 **PSU Measure of Size**

In order to sample PSUs with probability proportional to size, each PSU had to be assigned a measure of size (MOS). The measure of size used for selecting the PSUs was the number of 5-year-old children in the PSU (rather than the total PSU population size) adjusted for the desired oversampling of APIs. The number of 5-year-olds was determined using the method described above. For PSUs consisting of more than one county, the numbers of 5-year-olds in all the counties in the PSU were summed to obtain the number of 5-year-olds in the PSU. The weighted measure of size was calculated as follows:

<sup>&</sup>lt;sup>3</sup> Metropolitan Statistical Area (MSA) is a geographic entity designated as one or more counties in a metropolitan area, except in New England (CT, MA ME, NH, RI VT), where MSA is defined in terms of county subdivisions. Non-MSA designates one or more counties not in a metropolitan area. MSA and non-MSA are as defined by the Office of Management and Budget.

$$MOS = r_{API} \times n_{API} + n_{other}$$

where  $r_{API}$  is the oversampling rate for APIs and  $n_{API}$  and  $n_{other}$  are the counts of 5-year-old APIs and all other 5-year-olds, respectively. The value for  $r_{API}$  was 2.5, meaning that API children were sampled at a rate 2.5 times higher than non-API children in the third sampling stage (i.e., the stage during which children were sampled). The oversampling rate for APIs was used in computing the measure of size for the PSUs so that PSUs with a high concentration of APIs had a higher chance of being selected.

# 4.1.1.3 **PSU Stratification and Selection**

Ten PSUs with a large measure of size were included in the ECLS-K:2011 sample with certainty. They are referred to as self-representing (SR) PSUs. The remaining PSUs, which are referred to as non-self-representing (NSR) PSUs, were sampled using a stratified sampling procedure. They were grouped into 40 strata defined by MSA status, census geographic region, size class (defined using the measure of size), per capita income, and the race/ethnicity of 5-year-old children residing in the PSU (specifically the percent of 5-year-old APIs, the percent of 5-year-old Blacks, and the percent of 5-year-old Hispanics).

Two PSUs were selected in each NSR stratum using Durbin's Method 1 (Durbin, 1967). This method selects two first-stage units per stratum without replacement, with probability proportional to size and with known joint probability of inclusion of the pair. The Durbin method was used because it allows selection without replacement with known first and second order probabilities.

## 4.1.2 Sampling Schools

The second stage of sampling involved selecting samples of public and private schools that have kindergarten programs or that educate children of kindergarten age in an ungraded setting from within the sampled PSUs. The target for the number of schools participating in the base year of the study was 180 private and 720 public schools, for a total of 900 schools. In order to achieve this target number, approximately 280 private schools and 1,030 public schools were initially sampled because it was estimated that about 35 percent of the sampled private schools and 30 percent of the sampled public schools would refuse to participate in the study.

## 4.1.2.1 School Frames and School Eligibility

In order to sample schools for the ECLS-K:2011, a frame of public schools and a frame of private schools were built using the school frames constructed for the 2010 National Assessment of Education Progress (NAEP). The sources for the 2010 NAEP school frames were the most recent Common Core of Data (2006–07 CCD) and Private School Survey (2007–08 PSS) available at the time the NAEP frame was developed. The NAEP sampling frames included all elementary and secondary schools in the United States schools from CCD and PSS, respectively, for a total of 100,702 public schools and 30,977 private schools. Only schools in the NAEP frames that had kindergarten programs or served 5-year-old children in the 90 sampled PSUs were retained for the ECLS-K:2011 frames, which resulted in frames with 11,174 public schools and 6,411 private schools.

#### 4.1.2.2 School Measure of Size

Schools were selected with probability proportional to size. The measure of size for schools was kindergarten enrollment adjusted to take into account the desired oversampling of APIs. The oversampling rate for APIs was 2.5. Thus, the measure of size for school j in PSU i is

$$MPR_{ij} = 2.5 \times n_{API,ij} + n_{other,ij}$$

where  $n_{API,ij}$  is the estimated count of kindergarten children from the API group and  $n_{other,ij}$  is the number of all other kindergarten children in school *j* in PSU *i*, with enrollment information taken from the NAEP frames.

Schools for which data on kindergarten enrollment were missing from the NAEP frame were assigned a size value of 12 (which is half of the target sample of 23 children per school, rounded to the nearest integer). Examples of schools for which kindergarten enrollment data were imputed are those that reported pre-kindergarten and beyond as the school grade span but had missing data on kindergarten enrollment and those that only offered ungraded programs. Of the 11,174 public schools in the ECLS-K:2011 frame, 118 (or 1.1 percent) have imputed data for kindergarten enrollment. Of the 6,411 private schools, 266 (or 4.1 percent) have imputed data for kindergarten enrollment.

#### 4.1.2.3 Clustering of Small Schools

Public schools with fewer than 23 children and private schools with fewer than 12 children were clustered together for sampling. This would give smaller schools a better chance of being selected than if they were not clustered. Clusters were formed to have as few schools as possible, to have as close to 23 children (in public schools) or 12 children (in private schools) in each cluster as possible, and to be as different as possible in terms of locale, school size, and religious affiliation (if applicable). This was accomplished by creating sorted lists and then combining the lists together in an interleaving fashion<sup>4</sup> before grouping schools together for clustering. For public schools, locale and school size were used as sort variables. For private schools, religious affiliation and school size were used as sort variables. Public schools having more than 23 kindergarten children and private schools having more than 12 kindergarten children were not clustered, except in some rare instances in which they were clustered with a small school. For example, when a small school is not near any other small school on the sorted list, it would have been grouped with a large school. During sampling, a cluster of schools was treated as a single sampling unit, as was each non-clustered school. For ease of presentation, the text in the sections below refers to the sampling units as clusters, which include true clusters composed of at least two schools as well as individual schools that were not combined with other schools for sampling (i.e., "clusters" of one).

#### 4.1.2.4 Implicit Stratification of Schools/Clusters of Schools

Within each PSU, the public-school clusters were sorted by the measure of size (i.e., kindergarten enrollment adjusted for the desired oversampling of APIs) and separated into three size classes (high, medium, and low). Size classes were defined separately for each PSU based on the distribution of the school measure of size in the PSU; each class size contained one third of the schools/clusters of schools within the PSU. The clusters were also categorized into one of three groups according to their locale: city/suburb, town/rural, or mixed. The mixed group included clusters that were formed to have at least one school classified as city/suburb and at least one school classified as town/rural. Within each of the nine cells created by crossing the three locale groups and the three size classes, clusters were sorted by the number of APIs in the cluster in a serpentine manner.<sup>5</sup>

Similarly, each private-school cluster was categorized based on the schools' religious affiliation as religious, non-religious, or mixed. The mixed category included clusters with at least one

<sup>&</sup>lt;sup>4</sup> This means that the first school on the combined list is the first school from the first sorted list; the second school from the combined list is the first school from the second sorted list; the third school from the combined list is the second school from the first sorted list; and so on.

<sup>&</sup>lt;sup>5</sup> In a serpentine sort, the sort is from the smallest to the largest in cell 1 then from the largest to the smallest in cell 2, and back to smallest from largest in cell 3, and so on.

religious school and at least one non-religious school. School size was not used for stratification of private schools because the number of private schools was small and because there was less variation in school size among private schools than there was among public schools. The list of private-school clusters was then sorted by the three categories based on religious affiliation. Within each religious affiliation category, the clusters were sorted in a serpentine manner by the measure of size. However, the sorting differed slightly for clusters in SR PSUs and schools in non-SR PSUs. All private-school clusters in all SR PSUs was sorted by religious affiliation (religious/mixed/non-religious). This sorting allowed for better control of the sample distribution of religious, non-religious, and mixed schools/clusters. Clusters within non-SR PSUs were sorted by religious affiliation in a serpentine manner within their respective PSUs.

#### 4.1.2.5 School Selection

Clusters were sampled at rates that would result in an approximately self-weighting sample of children within the public and private school strata. The target number of sampled schools per PSU was calculated separately for public schools and private schools, and for self-representing and non-selfrepresenting PSUs. The number of schools selected was the target number of schools adjusted upward by the estimated school response and eligibility rates.

Selection of the clusters of schools was done systematically and with probability proportional to the measure of size. Selection of public schools was done independently within PSU. For the SR PSUs, selection of private schools was done on the entire list of clusters in the SR PSUs with one random start. For the non-SR PSUs, selection of private schools was done within PSU but carried over from one PSU to the next rather than selecting a new random start for each PSU in order to have a better representation of the proportion of schools that were religious, non-religious, or mixed.

#### 4.1.2.6 ECLS-K:2011 School Sample

A total of 1,221 clusters of schools were selected for the ECLS-K:2011, of which 1,003 are clusters of public schools and 218 are clusters of private schools. This resulted in 1,036 public schools and 283 private schools being part of the sample, for a total of 1,319 schools. This many schools were selected to yield 720 participating public schools and 180 participating private schools in the kindergarten rounds of data collection (assuming that approximately 70 percent of the originally sampled public

schools and 65 percent of the private schools would be eligible and would agree to participate).<sup>6</sup> The characteristics of the school sample are presented in table 4-2.

## 4.1.2.7 Updating the Frame to Improve School Coverage

The original sample of schools was selected in April 2009 in order to allow at least a year for school recruitment before the start of fall 2010 data collection activities. In the spring of 2010, after the original sample of schools was selected, procedures were used to update the school frame and select a supplemental sample of newly opened schools and existing schools that added kindergarten programs that were not included in the original frames. This procedure was necessary because the source data used to develop the ECLS-K:2011 school frame were collected a few years prior to the school year in which the ECLS-K:2011 sample was selected and may not have had complete coverage of nontraditional schools such as charter schools. Nontraditional schools tend to last for a short period of time and may not be in the version of the school frame available at sampling time. Procedures for augmenting the ECLS-K:2011 frames with schools that became operational sometime after the 2006–07 CCD and 2007–08 PSS data had been collected were different for public schools, Catholic schools, and non-Catholic private schools.

New public and Catholic schools in the school districts and diocese that had already been selected into the sample were identified by searching the websites of school districts and Catholic dioceses. The websites of these higher level organizations generally include descriptive information about all their schools, including those recently opened. In total, 194 new public schools and 52 new Catholic schools were identified in this updating process and were included in a supplemental frame from which new schools were sampled.

For non-Catholic private schools a different procedure was used because these schools are not organized in the same way as public and Catholic schools. Data from the 2009 Quality of Education (QED) database, a commercially available frame of schools, was used to identify non-Catholic private schools offering kindergarten programs that were not already in the ECLS-K:2011 frame. Review of the QED file yielded 615 new private schools that were added to the supplemental frame for sampling.

Schools were sampled from the supplemental frame and added to the original school sample. In total, 33 new schools were added, of which 16 are public, 4 are Catholic, and 13 are non-Catholic

<sup>&</sup>lt;sup>6</sup> This was based on the results of Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K) and the observation that response rates have declined across all surveys.

private schools. The total number of sampled schools after updating is 1,352 (1,052 public schools and 300 private schools).

Characteristic	Public	Private	Total
Total	1,036	283	1,319
Census region <sup>1</sup>			
Northeast	170	70	240
Midwest	210	60	270
South	380	80	460
West	270	70	350
Locale			
City	310	101	411
Suburb	396	116	512
Town	89	21	110
Rural	241	45	286
Kindergarten enrollment			
Fewer than 25	59	160	219
25–49	119	78	197
50–99	451	39	490
100–149	264	3	267
150–199	89	2	91
200–249	23	1	24
250–299	7	0	7
300 or more	24	0	24
Religious affiliation			
Catholic	÷	70	70
Other religious	† † †	126	126
Non-religious, private	Ť	87	87
Free lunch program			
Low (less than 25 percent eligible children	456	Ť	456
Medium low (greater than 25 percent and less than or equal to 50 percent)	267	÷	267
Medium high (greater than 50 percent and less	207	1	207
than or equal to75 percent )	188	Ť	188
High (greater than 75 percent)	125	÷	125
Other characteristics			
Bureau of Indian Affairs	3	0	3
Ungraded	168	9	177

Table 4-2.The ECLS-K:2011 school sample

† Not applicable.

<sup>1</sup> Northeast includes CT, MA, ME, NH, NJ, NY, PA, RI, and VT; Midwest includes IA, IL, IN, KS, MI, MN, MO, ND, NB, OH, SD, and WI; South includes AL, AR, DE, FL, GA, KY, MD, MS, LA, NC, OK, SC, TN, TX, VA, WV, and the District of Columbia; and West includes AK, AZ, CA, CO, HI, ID, MT, NM, , NV, OR, UT, WA, and WY. Sample sizes rounded to the nearest 10 and, therefore, may not sum to total. SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

#### 4.1.2.8 School Substitution

Early in the process of recruiting schools that had been sampled for the study, it was determined that the rate at which public schools were agreeing to participate was lower than expected, and it would be difficult to meet the target number of participating schools by the end of the recruitment period. The decision was made to select public schools not selected into the original ECLS-K:2011 sample that would replace those sampled public schools that had already refused to participate. School substitution was used in PSUs in which more than half of the sampled public schools in the PSU had been identified as either initial or final refusals. An initial refusal is a school that refused to participate when it was contacted the first time. A final refusal happened when there was an attempt to convert but the school remained uncooperative.

The first step in selecting substitute schools was to determine whether there was a sufficient number of replacement schools in the PSU. Within each PSU, schools in districts that refused to have any of their schools participate were excluded from the list of potential replacement schools. If the PSU had a sufficient number of available replacement schools after schools in nonparticipating districts were excluded, within-PSU substitution was conducted. If there was an insufficient number of available replacement schools in the original PSU to yield at least a response rate of 50 percent<sup>7</sup> in the PSU when taking all schools in the PSU into consideration, a PSU of similar background characteristics was identified, and replacement schools were selected from those PSUs. Background characteristics used to identify PSU and school replacements are discussed below.

When substitution is used in sampling, NCES standards require that the replacement or substitute units be identified at the time of sampling. For the ECLS-K:2011, this was accomplished most directly by performing within-PSU substitution. Replacement schools were selected based on the sort order used in the original sampling procedure, with the school most adjacent to the original school being chosen as the replacement school. If more than one school was equally adjacent, the school whose measure of size was closest to the original school was selected. This is equivalent to pre-selecting replacement schools from a sorted frame with substitution efforts concentrated only on low responding PSUs.

When within-PSU substitution was not possible because there were not enough potential replacement schools in the PSU to yield a response rate of at least 50 percent in that PSU, a substitute PSU was selected from the same sampling strata as the original PSU. Within each sampling stratum, the

<sup>&</sup>lt;sup>7</sup> Fifty percent was the minimum response rate estimated to yield the required number of cooperating schools.

PSU that most closely matched the original PSU on important sampling characteristics (the PSU measure of size, per capita income, percent Black, percent Hispanic, and percent API) was selected. This procedure is again equivalent to a pre-selection scheme because it mimics exactly the procedure to select the original PSUs. The schools in the substitute PSUs were then combined with the sampled schools from the original PSUs. Schools were sorted first by three size categories (small, medium, and large) based on kindergarten enrollment adjusted for the desired oversampling of APIs. In most cases, the categories matched those used to categorize schools in the original PSU being replaced in terms of the enrollment numbers used to define each category. However, due to differences in school-level characteristics across original and substitute PSUs, there were a few instances where the categories were modified slightly in order to provide enough potential replacement schools within each size category. After assigning schools to size categories, schools were sorted in a serpentine manner based on selected school characteristics and substitution was completed within each size category. For each nonparticipating school, the most adjacent school with the most similar measure of size was selected to replace it.

In the PSUs that had too few schools to have enough replacement schools, replacement schools represent 2 percent of all participating schools. In the PSUs where large school districts refused to cooperate, replacement schools represent 5 percent of all participating schools.

#### 4.1.3 Sampling Children

The goal of the sample design was to obtain an approximately self-weighting sample of children, with the exception of APIs who needed to be oversampled to meet sample size goals. Within each sampled school, field staff obtained a complete list of kindergartners who were enrolled in the school or children of kindergarten age in ungraded settings.

Two independent sampling strata were formed within each school, one containing API children and the second containing all other children. API children were sampled from the API stratum with a sampling rate that was 2.5 times the rate of sampling used for non-API children. Within each stratum, children were selected using equal probability systematic sampling. In general, the target number of children sampled at any one school was 23. Sampling was done systematically and with equal probability from the list. If a school was small, then fewer children were sampled from this school compared to other schools with a larger number of children (though for any given student, the probability of selection was higher in a smaller school than it was in a larger school). As a general rule, if a sampled school had 23 or more kindergarten children or kindergarten-age children, 23 children were selected; if a sampled school had fewer than 23 children, all the children were selected. However, for practical reasons,

if there were fewer than 28 children in a school, all were selected. Twins were not identified prior to sampling, but both members of a twin pair could enter the sample through this method of probability sampling if they were sampled independently.

Table 4-3 shows the distribution of the eligible children sampled for the ECLS-K:2011. Table 4-4 shows the distribution of the children who participated in the base year.

	Public	Private	
Child characteristic	school	school	Total
Total	17,733	2,501	20,234
Census region <sup>1</sup>			
Northeast	2,930	570	3,500
Midwest	3,520	710	4,240
South	6,620	610	7,230
West	4,660	610	5,270
Locale			
City	5,822	853	6,675
Suburb	6,461	1,196	7,657
Town	1,383	174	1,557
Rural	4,067	278	4,345
Religious affiliation			
Catholic	Ť	974	974
Other religious	+	1,002	1,002
Non-religious, private	Ť	525	525
Child's race/ethnicity			
American Indian or Alaska Native (not Hispanic)	207	11	218
Asian (not Hispanic)	1,597	233	1,830
Black (not Hispanic)	2,357	262	2,619
Hispanic	4,491	341	4,832
Pacific Islander (not Hispanic)	130	22	152
White (not Hispanic)	8,167	1,506	9,673
More than one race (not Hispanic)	784	126	910

Table 4-3.	Number (unweighted) of eligible children in the ECLS-K:2011 base-year sample, by selected
	characteristics: School year 2010–11

† Not applicable.

<sup>1</sup> Northeast includes CT, MA, ME, NH, NJ, NY, PA, RI, and VT; Midwest includes IA, IL, IN, KS, MI, MN, MO, ND, NB, OH, SD, and WI; South includes AL, AR, DE, FL, GA, KY, MD, MS, LA, NC, OK, SC, TN, TX, VA, WV, and the District of Columbia; and West includes AK, AZ, CA, CO, HI, ID, MT, NM, , NV, OR, UT, WA, and WY. Sample sizes rounded to the nearest 10 and, therefore, may not sum to total. NOTE: Base-year sample includes cases eligible for the fall kindergarten or spring kindergarten collection.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

	Public	Private	
Child characteristic	school	school	Total
Total	15,953	2,221	18,174
Census region <sup>1</sup>			
Northeast	2,540	470	3,010
Midwest	3,220	650	3,870
South	6,070	570	6,640
West	4,130	530	4,660
Locale			
City	5,252	762	6,014
Suburb	5,746	1,047	6,793
Town	1,254	151	1,405
Rural	3,701	261	3,962
Religious affiliation			
Catholic	Ť	863	863
Other religious	† † †	903	903
Non-religious, private	<del>.</del> †	455	455
Child's race/ethnicity			
American Indian or Alaska Native (not Hispanic)	172	9	181
Asian (not Hispanic)	1,375	201	1,576
Black (not Hispanic)	2,182	243	2,425
Hispanic	4,187	320	4,507
Pacific Islander (not Hispanic)	99	16	115
White (not Hispanic)	7,216	1,311	8,527
More than one race (not Hispanic)	722	121	843

Table 4-4.	Number (unweighted) of children participating in the base year, by selected characteristics:
	School year 2010–11

† Not applicable.

<sup>1</sup> Northeast includes CT, MA, ME, NH, NJ, NY, PA, RI, and VT; Midwest includes IA, IL, IN, KS, MI, MN, MO, ND, NB, OH, SD, and WI; South includes AL, AR, DE, FL, GA, KY, MD, MS, LA, NC, OK, SC, TN, TX, VA, WV, and the District of Columbia; and West includes AK, AZ, CA, CO, HI, ID, MT, NM, , NV, OR, UT, WA, and WY. Sample sizes rounded to the nearest 10 and, therefore, may not sum to total. NOTE: Base-year sample includes those cases with completed child or parent data in the fall kindergarten or spring kindergarten data collection. SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Once the children were sampled from the school lists of enrolled kindergartners, parent contact information for each child was obtained from the school. The information was used to locate a parent or guardian, to conduct the parent interview, and gain parental consent for the child to be assessed.

Teachers who taught the sampled children and before- and after-care (BASC) providers of children with BASC were also included in the study and were asked to complete questionnaires. All teacher and BASC provider data are linked to their children. There are no teachers or BASC providers included in the sample who did not provide instruction to or care for a sampled child. The procedure for

identifying and including teachers for the ECLS-K:2011 is different from the procedure used in the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K) where, during the fall kindergarten data collection, a census of kindergarten teachers was taken at each school, resulting in teachers being included who did not teach children sampled for the study.

# 4.2 Calculation and Use of Sample Weights

The ECLS-K:2011 data should be weighted to compensate for differential probabilities of selection at each sampling stage and to adjust for the effect nonresponse can have on the estimates. For the base year, weights are provided at the child and school levels. Estimates produced using the base-year child-level weights are representative of children who attended kindergarten or who attended an ungraded school or classroom and were of kindergarten age in the United States in the 2010–11 school year. Estimates produced using the base-year school-level weight are representative of schools with kindergarten programs or schools that educate children of kindergarten age in an ungraded setting.

Data from the study are not representative of teachers or before- and after-school care providers, because these respondents were not sampled from a frame representative of teachers or care providers. They are included in the study by virtue of their connection to the sampled children. There are no teachers or care providers included in the sample who did not provide instruction or care to a sampled child. For this reason, there are no teacher- or care-provider-level weights available for analyses.

The use of weights is essential to produce estimates that are representative of the cohort of children who were in kindergarten in 2010–11 or of schools educating kindergartners or kindergarten-age children in 2010–11. Full sample weights should be used to produce survey estimates. When testing hypotheses (e.g., conducting *t*-tests, regression analyses, etc.) using weighted data from a study such as the ECLS-K:2011 that has a complex design, analysts also should use methods to adjust the standard errors. Two such methods are jackknife replication variance estimation and the Taylor series method. Replicate weights are provided in the data file for use with the paired jackknife replication procedure and PSU and stratum identifiers are provided for use with the Taylor series method.

#### 4.2.1 Types of Sample Weights

Full sample weights designed for use with data from a complex sample survey serve two primary purposes. When used in analyses, the full sample weight weights the sample size up to the population total of interest. In the ECLS-K:2011, weighting produces national-level estimates. Also, the full sample weight adjusts for differential nonresponse patterns that can lead to bias in the estimates. If people with certain characteristics are systematically less likely than others to respond to a survey, the collected data may not accurately reflect the characteristics and experiences of the nonrespondents, which can lead to bias. To adjust for this, respondents are assigned weights that, when applied, result in them representing their own characteristics and experiences as well as those of nonrespondents with similar attributes.

A sample weight could be produced for use with data from every component of the study (e.g., data from the fall child assessment, from the fall parent interview, from the spring child assessment, from the spring parent interview, etc.) and for every combination of components for the study (e.g., data from the fall child assessment with data from the fall parent interview or data from the spring child assessment with data from the school administrator questionnaire). However, creating all possible weights for a study with as many components as the ECLS-K:2011 has would be impractical, especially as the study progresses and the number of possible weights increases. Additionally, for budgetary reasons, the number of base-year weights created was constrained to 12 (see exhibit 4-1). In order to determine which weights would be most useful for researchers analyzing data from the base year, completion rates for each fall kindergarten and spring kindergarten component (e.g., response to the child assessment, the parent interview, various parts of the teacher questionnaire) were reviewed, and consideration was given to how analysts are likely to use the data (i.e., which weights will have greatest analytic utility).

The best approach to choosing a sample weight for a given analysis is to select one that maximizes the number of sources of data included in the analyses for which nonresponse adjustments are made, which in turn minimizes bias in estimates, while maintaining as large an unweighted sample size as possible. Exhibit 4-1 identifies the survey component(s), or sources of data, for which nonrespondent adjustments are made for each weight. Exhibit 4-2, which presents the same information in matrix format, was developed to further assist researchers in deciding which weight to use for analyses. In exhibit 4-2, the components for which nonresponse adjustments are made for each weight that has a "Yes" in the column(s) for the source(s) of data they are using in their analyses. The best weight would have a "Yes" for each and every source used. For example, if a researcher is conducting an analysis that includes only child-level data reported by the teachers in the spring, the weight W12T0 should be used since it adjusts for nonresponse on the child-level teacher questionnaires in both waves (i.e., exhibit 4-2 shows a "Yes" in both columns).

However, for many analyses, there will be no weight that adjusts for nonresponse to all the sources of data that are included. When no weight corresponds exactly to the combination of components included in the desired analysis, researchers might prefer to use a weight that includes nonresponse adjustments for more components than they are using in their analysis (i.e., a weight with "Yes" in columns corresponding to analysis components that are not included in their analyses) if that weight also includes nonresponse adjustments for the components they are using. Although such a weight may result in a smaller analytic sample than would be available when using a weight that corresponds exactly to the components from which the analyst is using data, it will adjust for the potential differential nonresponse associated with the components. If researchers instead choose a weight with nonresponse adjustments for fewer components than they are using in their analysis, missing data should be examined for potential bias.

In the ECLS-K:2011, response rate is highest for the child assessment. Most children with data from the parent, teacher, before- and after-school care (BASC) provider, or school administrator have child assessment data. Consequently, decisions about which weight to choose will depend primarily on which components other than the child assessment are being used in analyses. For example, if a researcher is conducting an analysis that includes fall child assessment data, spring child assessment data, fall parent interview data, and spring parent interview data, there is no weight that adjusts for nonresponse on all four components. There is a weight that adjusts for nonresponse to the fall parent interview and nonresponse to the spring parent interview—W12P0. W12P0 would be the appropriate weight to use, even though nonresponse to the child assessment is not adjusted for in this weight, because the majority of cases that have parent data at both rounds also have child assessment data at both rounds.

Data from BASC providers were collected for children who were in after-school programs, either in a center or a home environment. There are two weights developed for use with the provider data —W1PZ0 and W12PZ0. Since the collection of the BASC provider data required parent consent obtained during the fall parent interview, these weights adjust for nonresponse associated with both the care provider questionnaires and the parent interview.

Weight	Description
School-level weight W2SCH0	School base weight adjusted for nonresponse associated with the school administrator questionnaire
Student-level weight W1C0	Child base weight adjusted for nonresponse associated with the fall kindergarten child assessment
W1A0	Child base weight adjusted for nonresponse associated with the fall kindergarten teacher-level questionnaire
W1T0	Child base weight adjusted for nonresponse associated with the fall kindergarten child-level teacher questionnaire
W1P0	Child base weight adjusted for nonresponse associated with the fall kindergarten parent interview
W2P0	Child base weight adjusted for nonresponse associated with the spring kindergarten parent interview
W12P0	Child base weight adjusted for nonresponse associated with both fall and spring kindergarten parent interviews
W1_2P0	Child base weight adjusted for nonresponse associated with either fall or spring kindergarten parent interviews
W12T0	Child base weight adjusted for nonresponse associated with both the fall kindergarten and the spring kindergarten child-level teacher questionnaires
W12AC0	Child base weight adjusted for nonresponse associated with the spring kindergarten teacher-level questionnaire and the fall kindergarten child assessment
W1PZ0	Child base weight adjusted for nonresponse associated with the fall kindergarten parent interview and the before- and after-school care (BASC) provider questionnaires
W12PZ0	Child base weight adjusted for nonresponse associated with both fall kindergarten and spring kindergarten parent interviews and the before- and after-school (BASC) care provider questionnaires

Exhibit 4-1. ECLS-K:2011 base-year full sample weights: School year 2010–11

		Fall kind	ergarten					Spring kinderga	irten				
Weight	Child	Parent	Teacher, teacher- level	Teacher, child- level	Child	Parent	Teacher, teacher- level	Teacher, supplemental	Teacher, child- level	BASC	School admin- istrator		
School-level weight													
W2SCH0	Ť	Ť	ţ	Ť	Ť	Ť	Ť	Ť	ţ	÷	Yes		
Child-level weight													
W1C0	Yes	Ť	ť	Ť	ţ	Ť	Ť	Ť	ť	Ť	ť		
$W1A0^{1}$	Ť	†	Yes	Ť	Ť	ţ	Ť	Yes	ţ	Ť	ť		
W1T0	ť	†	ť	Yes	Ť	ť	Ť	ţ	Ť	Ť	ť		
W1P0	ť	Yes	ť	Ť	ť	Ť	Ť	ţ	ť	Ť	÷		
W2P0	ť	Ť	ť	Ť	ť	Yes	Ť	ţ	ť	Ť	÷		
W12P0	ť	Yes	†	Ť	Ť	Yes	Ť	Ť	Ť	Ť	†		
W1 $2P0^2$	ţ	Yes	†	†	ŕ	Yes	†	Ť	†	†	†		
W12T0	ť	†	†	Yes	Ť	†	Ť	Ť	Yes	+	+		
W12AC0	Yes	†	Ť	ţ	ţ	ţ	Yes	ţ	ţ	Ť	÷		
W1PZ0	ť	Yes	Ť	ţ	ţ	Ť	Ť	ţ	Ť	Yes	÷		
W12PZ0	ŕ	Yes	†	†	Ť	Yes	†	Ť	†	Yes	÷		

Exhibit 4-2. Weights developed for use with the ECLS-K:2011 base-year data, by components for which nonresponse adjustments are made: School year 2010–11

† Not applicable.

<sup>1</sup> The italicized *Yes* indicates an "or" condition. If teachers did not complete a fall kindergarten teacher-level questionnaire, in the spring of kindergarten they were asked to complete a Supplemental Teacher Questionnaire, which was a survey that collected important information about the teacher's characteristics, such as demographics, education, and teaching experience.

<sup>2</sup> The italicized Yes indicates an "or" condition. A case had to either have a fall kindergarten parent interview or a spring kindergarten parent interview to have a valid W1 2P0 weight.

NOTE: "Yes" indicates that the weight includes nonresponse adjustments for that component. BASC= Before- and After-School Care surveys.

## 4.2.2 Computation of Sample Weights

There were three stages in the development of the sample weights that correspond to the three sampling stages described above.

## 4.2.2.1 Computation of the PSU-Level Weight

The first stage of the weighting process assigned weights to the sampled PSUs equal to the inverse of the PSU probability of selection. The 10 self-representing PSUs in the ECLS-K:2011 were included with certainty, and so their weight is unity. For the 80 non-self-representing PSUs, the overall selection probability of PSU *i* was  $PSUPROB_i = \frac{2M_i}{M_g}$ , where  $M_i$  is the measure of size of unit *i*, and  $M_g$  is the measure of size of stratum *g*.

## 4.2.2.2 Computation of the School-Level Weight

The second stage of the weighting process assigned weights to the schools sampled within PSUs. The full sample school weight is W2SCH0, which adjusts for both the probability of selection and nonresponse. This weight and the corresponding replicate weights (described further below) are to be used with school administrator questionnaire data to produce school-level estimates. When combining school administrator questionnaire data with other child-level data such as assessment data or teacher questionnaire data to conduct analyses of children, child-level weights should be used. However, for analyses using hierarchical linear models (HLM), the school weight is more appropriate to account for nested data.

## 4.2.2.2.1 Computation of the School-Level Base Weight

The first step in developing a school-level weight was to calculate a base weight for each school that was the PSU weight multiplied by the inverse of the probability of selecting the school from the PSU. For schools that were in a cluster with at least one other school, the school selection probability was the same for all schools in the cluster and equal to the cluster selection probability. If a sampling stratum included schools with very large measure of size, the large schools in this stratum were selected with certainty. For schools/clusters selected with certainty, the probability is unity. For schools/clusters

selected with probability proportional to size, the probability of selection for the school and the cluster was calculated as  $SCHPROB_{ijk} = CLUSPROB_{ijk} = \frac{n_{ij} \times m_{ijk}}{\sum_{k \in j} m_{ijk}}$  where  $n_{ij}$  is the target number of

noncertainty clusters in stratum *j* in PSU *i*, and  $m_{ijk}$  is the measure of size of cluster *k* in stratum *j* in PSU *i*. In the above equation, the subscript to indicate a school within a cluster is dropped for simplicity. In all discussions that follow, reference is made only to schools and not clusters, keeping in mind that if a school is part of a cluster, then its selection probability (hence, weight) is equal to that of the cluster.

As noted above, procedures for augmenting the school sampling frames were adopted to improve the coverage of schools after the original sample was selected. The selection probability for a new public school in a district already in the sample was conditioned on the within-stratum probability of selecting that district. Similarly, the selection probability for a new school identified in a Catholic diocese was conditioned on the within-stratum probability of selecting the diocese. The private schools that were not part of a Catholic diocese were selected directly from lists (i.e., their selection was not dependent on another entity's inclusion in the sample) and, therefore, their selection probability is not conditional.

To increase the sample size, in some cases originally sampled public schools that did not participate were replaced by substitute public schools. In these instances, the base weight of the substitute school is equal to the base weight of the original school, adjusted for a difference in school size, if there was such a difference.

## 4.2.2.2.2 Computation of the School-Level Nonresponse-Adjusted Weight

The base weights of responding schools were adjusted to compensate for nonresponse among the set of eligible schools. In this process, sampled schools were classified as respondents, eligible nonrespondents, or ineligible (for example, when it was determined that a sampled school did not educate kindergartners or children of kindergarten age in an ungraded setting). Substitute schools were treated as respondents even though the substitute schools are not counted as respondents in computing response rates (discussed further in chapter 5).

Analyses of response propensity were performed to identify school characteristics that are good predictors of response. These characteristics were used to form nonresponse classes, or groups of schools with a particular set of characteristics. Nonresponse classes were formed separately for each school type (public/Catholic/non-Catholic private). Although these groups are referred to as nonresponse classes, each group included both responding and nonresponding schools with similar characteristics. For example, one nonresponse class included schools that are public schools in suburb areas of the Northeast region. The school-level nonresponse adjustment was computed as the sum of the weights for all the eligible (responding and nonresponding) schools sampled in a nonresponse class divided by the sum of the weights of the eligible responding schools in that nonresponse class.

# 4.2.2.3 Computation of the Child-Level Weights

Weights were assigned to children sampled within schools. The child-level weights are used to produce child-level estimates.

### 4.2.2.3.1 Computation of the Child-Level Base Weight

The first step in developing a child-level weight was to calculate a base weight for each child. The child base weight is the school nonresponse-adjusted weight multiplied by the within-school child weight. The within-school child weight was calculated separately for API and non-API children. For API children, the within-school child weight is the total number of API kindergarten children in the school divided by number of API kindergarten children sampled in the school. For non-API children, the within-school child weight is the total number of non-API kindergarten children in the school child weight is the total number of non-API kindergarten children in the school child weight is the total number of non-API kindergarten children in the school divided by number of non-API kindergarten children sampled in the school.

#### 4.2.2.3.2 Computation of the Child-Level Nonresponse-Adjusted Weight

The child base weight was adjusted for nonresponse to produce each of the 11 child-level weights described in exhibits 4-1 and 4-2. For each weight, a response status was defined based on the presence of data for particular components. For example, for the weight W1C0, a response status for the fall kindergarten collection was determined according to three criteria: (1) the child has scoreable reading and/or mathematics data; (2) the child does not have scoreable assessment data but has height and/or weight data; (3) or the child was excluded from assessment due to a disability or limitation that was not accommodated (for example, the child was blind and the assessments were not provided in Braille). For the weight W1P0, a respondent is identified as a child with fall kindergarten parent interview data.

The response status was used to adjust the base weight for nonresponse to arrive at the final full sample weight. Nonresponse classes were formed separately for each school type (public/Catholic/non-Catholic private). Within school type, analysis of child response propensity was conducted using child characteristics such as date of birth and race/ethnicity to form nonresponse classes. Continuing with the example W1C0, a child was classified as respondent, nonrespondent, or ineligible. Children would have been considered ineligible if they moved out of the country, died, or changed grades or withdrew from a kindergarten program between the time of sampling and the time of the assessment. The child-level nonresponse adjustment was computed as the sum of the weights for all the eligible (responding and nonresponding) children in a nonresponse class divided by the sum of the weights of the eligible responding children in that nonresponse class.

### 4.2.2.4 Replicate Weights

Replicate weights, constructed using a jackknife replication method, should be used to estimate the standard errors of survey estimates using the replication method, which is described further in section 4.2.4. For the ECLS-K:2011, the number of replicates for the non-self-representing PSUs can only be 40 since this is the number of non-self-representing sampling strata. If 40 replicates are also constructed for the 10 self-representing PSUs (that are also self-representing strata, of one PSU each), the 80 replicates will provide about 77 degrees of freedom for calculating confidence intervals for the survey estimates. The sample of PSUs was divided into 80 replicates or variance strata, the maximum number of replicates that provide sufficient degrees of freedom to support most analyses.

The 40 non-self-representing strata form 40 variance strata of two PSUs each; each PSU forms a variance unit within a variance stratum. All schools within a non-self-representing PSU were assigned to the same variance unit and variance stratum.

Sampled schools in the 10 self-representing PSUs were grouped into 40 variance strata. To do so, first schools were sorted by sampling stratum, type of school (from the original sample or newly selected via the new school procedures as part of updating the school frame), source of the newly selected schools, and their original order of selection (within stratum). From this sorted list, schools were grouped into pairs within each sampling stratum; the last group in the stratum was a triplet if the number of schools in the stratum was odd. This operation resulted in a number of ordered preliminary variance strata of two or three units each. The first 40 ordered preliminary strata (i.e., the first 40 groups of two or three schools) were then numbered sequentially from 1 to 40; the next 40 ordered preliminary strata (i.e., the next 40 groups of two or three schools) were also numbered sequentially from 1 to 40, and so on until the

list was exhausted. The preliminary variance strata with the same number were grouped together to form the final 40 variance strata.

The final 80 variance strata (40 constructed from non-self-representing PSUs and 40 constructed from self-representing PSUs) can have two units or three units each. In a variance stratum with two units, the weight of the first unit was doubled to form the replicate, while the weight of the second unit was multiplied by zero. In the case of a triplet, two variance strata were created: in the first variance stratum, two of the three units were weighted by 1.5 to form the replicate and the last unit was zero-weighted; in the second variance stratum, a different group of two units was weighted by 1.5, and the third unit was zero-weighted. For each full-sample weight, a set of replicate weights was computed. All adjustments to the full sample weight were repeated for the replicate weights.

#### 4.2.3 Characteristics of Sample Weights

The statistical characteristics of the sample weights are presented in table 4-5. For each weight, the number of cases with nonzero weights is presented along with the mean weight, the standard deviation, the coefficient of variation (i.e., the standard deviation as a percentage of the mean weight), the minimum weight, the maximum weight, the skewness, the kurtosis, and the sum of weights.

	Number of		Standard	$CV^1$					
Weight	cases	Mean	deviation	(× 100)	Minimum	Maximum	Skewness	Kurtosis	Sum
W2SCH0	866	78.36	50.22	64.09	4.45	372.02	1.71	4.15	67,864
W1C0	15,827	256.16	129.20	50.44	11.48	958.82	1.97	6.85	4,054,166
W1A0	17,041	237.91	121.14	50.92	11.82	980.79	2.26	9.38	4,054,166
W1T0	14,866	272.71	136.70	50.13	11.32	1,012.44	1.76	5.76	4,054,166
W1P0	13,399	302.57	148.21	48.98	12.59	990.43	1.60	4.41	4,054,166
W2P0	13,611	297.86	142.26	47.76	32.11	965.66	1.71	5.13	4,054,166
W12P0	10,922	371.19	171.30	46.15	40.14	1,026.79	1.30	2.86	4,054,166
W1 2P0	16,088	252.00	124.08	49.24	11.85	956.72	2.11	7.96	4,054,166
$W1\overline{2}T0$	14,056	288.43	147.50	51.14	14.33	1,109.05	1.74	5.18	4,054,166
W12AC0	14,368	282.17	141.73	50.23	11.46	968.62	1.55	4.13	4,054,166
W1PZ0	2,118	336.42	155.71	46.28	40.31	967.49	1.15	2.25	712,531
W12PZ0	1,827	390.00	174.23	44.67	61.71	922.08	0.88	1.14	712,531

Table 4-5.Characteristics of the base-year weights: School year 2010–11

<sup>1</sup> Coefficient of variation.

## 4.2.4 Variance Estimation

The precision of the sample estimates derived from a survey can be evaluated by estimating the variances of these estimates. For a complex sample design such as the one employed in the ECLS-K:2011, replication and Taylor Series methods have been developed to correctly estimate variance. These methods take into account the clustered, multistage sampling design and the use of differential sampling rates to oversample targeted subpopulations. For the ECLS-K:2011, in which the first-stage self-representing sampling units (i.e., PSUs) were selected with certainty and the first-stage non-self-representing sampling units were selected with two units per stratum, the paired jackknife replication method (JK2) is recommended. This section describes the JK2 and the Taylor series methods, which can be used to compute correct standard errors for any analysis.

#### 4.2.4.1 Jackknife Method

The final full sample and replicate weights can be used to compute estimates of variance for survey estimates using the jackknife method with two PSUs per stratum (JK2) using several software packages including WesVar, AM, SUDAAN, SAS, Stata, and R. In the jackknife method, each survey estimate of interest is calculated for the full sample as well as for each of the *g* replicates, where *g* is 80 in the ECLS-K:2011. The variation of the replicate estimates around the full-sample estimate is used to estimate the variance for the full sample. The variance estimator is computed as the sum of squared deviations of the replicate estimates from the full sample estimate:

$$v(\theta) = \sum_{g=1}^{G} (\hat{\theta}_{(g)} - \hat{\theta})^2$$

where

heta is the survey estimate of interest,

 $\hat{ heta}$  is the estimate of heta based on the full sample,

G is the number of replicates, and

 $\hat{\theta}_{(g)}$  is the g<sup>th</sup> replicate estimate of  $\theta$  based on the observations included in the g<sup>th</sup> replicate.

Each full sample weight has 80 corresponding replicate weights for use with the JK2 method. The replicate weights begin with the same characters as the full sample weight and end with the numbers 1 to 80. For example, the replicate weights corresponding to weight W1C0 are W1C1 through W1C80.

## 4.2.4.2 Taylor Series Method

Variance stratum and variance unit (first-stage sample unit [i.e., PSU]) identifiers were also created to be used in statistical software that computes variance estimates based on the Taylor series method (for example, AM, SUDAAN, SAS, SPSS, and Stata). In this method, a linear approximation of a statistic is formed and then substituted into the formula for calculating the variance of a linear estimate appropriate for the sample design.

If  $Y = (Y_1, ..., Y_p)'$  denotes a p-dimensional vector of population parameters,  $\hat{Y} = (\hat{Y}_1, ..., \hat{Y}_p)'$  is the corresponding vector of estimators based on a sample *s* of size n(s),  $\theta = g(Y)$  is the population parameter of interest, and  $\hat{\theta} = g(\hat{Y})$  is an estimator of  $\theta$ , then

$$\hat{\theta} - \theta \doteq \sum_{j=1}^{p} \frac{\partial g(Y)}{\partial y_j} \left( \hat{Y}_j - Y_j \right)$$

and

$$v(\hat{\theta}) \doteq v\left(\sum_{j=1}^{p} \frac{\partial g(Y)}{\partial y_{i}} (\hat{Y}_{j} - Y_{j})\right) = \sum_{j=1}^{p} \sum_{i=1}^{p} \frac{\partial g(Y)}{\partial y_{j}} \frac{\partial g(Y)}{\partial y_{i}} Cov\{\hat{Y}_{j}, \hat{Y}_{i}\}$$

The Taylor series method relies on a simplified procedure for estimating the variance for a linear statistic even with a complex sample design and is valid when analyzing data from large samples in which the first stage units are sampled with replacement. The stratum and first-stage unit identifiers needed to use the Taylor series method were assigned as follows: all independent sampling strata were numbered sequentially from 1 to h; within each sampling stratum, first-stage sampling units were numbered from 1 to  $n_h$ . Care was taken to ensure that there were at least two responding units in each stratum. For instances in which a stratum did not have at least two responding units, the stratum was combined with an adjacent stratum. Stratum and first-stage unit identifiers are provided in the data file. Each full sample weight has corresponding stratum and PSU identifiers for use with the Taylor series method. The stratum and PSU identifiers begin with the same characters as the full sample weight and end with either STR or PSU. For example, the stratum and PSU identifiers corresponding to weight W1C0 are W1C0STR and W1C0PSU, respectively.

### 4.2.4.3 Specifications for Computing Standard Errors

For the jackknife replication method, the full sample weight, the replicate weights, and the method of replication must be specified. All analyses of the ECLS-K:2011 data using the replication method should be done using JK2. As an example, to compute child-level estimates (e.g., mean reading scores) and their standard errors, users need to specify W1C0 as the full sample weight, W1C1 to W1C80 as the replicate weights, and JK2 as the method of replication.

For the Taylor series method, the full sample weight, the sample design, the nesting stratum, and PSU variables must be specified. As an example, to compute child-level estimates (e.g., mean reading scores) and their standard errors, users must specify the full sample weight (W1C0), the stratum variable (W1C0STR), and the PSU variable (W1C0PSU). The "with replacement" sample design option, WR, must also be specified if using SUDAAN.

## 4.2.5 Use of Design Effects

An important analytic device is to compare the statistical efficiency of survey estimates from a complex sample survey such as the ECLS-K:2011 with what would have been obtained in a hypothetical and usually impractical simple random sample (SRS) of the same size. In a stratified clustered design, stratification generally leads to a gain in efficiency over simple random sampling, but clustering has the opposite effect because of the positive intracluster correlation of the units in the cluster. The basic measure of the relative efficiency of the sample is the *design effect (DEFF)*, defined as the ratio, for a given statistic, of the variance estimate under the actual sample design to the variance estimate that would be obtained with an SRS of the same sample size:

$$DEFF = \frac{VAR_{DESIGN}}{VAR_{SRS}}$$

The root design effect is the square root of the design effect:

$$DEFT = \sqrt{DEFF} = \frac{SE_{DESIGN}}{SE_{SRS}}$$

where SE is the standard error of the estimate.

As discussed above, jackknife replication and Taylor Series can be used to compute more precise standard errors for data from complex surveys. If statistical analyses are conducted using software packages that assume the data were collected using simple random sampling (i.e., adjustments are not made using jackknife replication or the Taylor series method), the standard errors will be calculated under this assumption and will be incorrect. They can be adjusted using the average root design effect (*DEFT*), though this method is less precise than JK or Taylor series.<sup>8</sup> The standard error of an estimate under the actual sample design can be approximated as the product of the *DEFT* and the standard error assuming simple random sampling.

In the ECLS-K:2011, a large number of data items were collected from children, parents, teachers, school administrators, and before- and after-school care providers. Each item has its own design effect that can be estimated from the survey data. Standard errors and design effects are presented in the tables below for selected items from the study to allow analysts to see the range of standard errors and design effects for the study variables. They were computed using the paired jackknife replication method in Wesvar.

However, as discussed in section 4.2.4, not all statistical analysis software packages have procedures to compute variance estimate or standard error using the replication method, or if they do, they may not be available to the analysts. In such situations the correct variance estimate or standard error can be approximated using the design effect or the root design effect.

As the first step in the approximation of a standard error, normalize the overall sample weights for packages that use the weighted population size (N) in the calculation of standard errors (SPSS but not SAS). The normalized weight will sum to the sample size (n) and is calculated as

normalized weight = weight 
$$\times \frac{n}{N}$$

where *n* is the sample size and *N* is the sum of weights. See exhibit 4-2 for the type of weights to use and table 4-5 for the sample size *n* and the sum of weights *N*.

As the second step in the approximation, the standard errors produced by the statistical software, the test statistics, or the sample weight used in analysis can be adjusted to reflect the actual

<sup>&</sup>lt;sup>8</sup> Common procedures in SAS, SPSS, and Stata assume simple random sampling. Data analysts should use the SVY procedure (SAS), the Complex Samples module (SPSS), or the SURVEY command (Stata) to account for complex samples.

complex design of the study. To adjust the standard error of an estimate, multiply the standard error produced by the statistical software by the square root of the *DEFF* or the *DEFT* as follows:

$$SE_{DESIGN} = \sqrt{DEFF \times VAR_{SRS}} = DEFT \times SE_{SRS}$$

A standard statistical analysis package can be used to obtain VAR<sub>SRS</sub> and SE<sub>SRS</sub>. The *DEFF* and *DEFT* used to make adjustments can be calculated for specific estimates, can be the median *DEFF* and *DEFT* across a number of variables, or can be the median *DEFF* and *DEFT* for a specific subgroup in the population.

Adjusted standard errors can then be used in hypothesis testing, for example when calculating *t*- and *F*-statistics. A second option is to adjust the *t*- and *F*-statistics produced by statistical software packages using unadjusted (i.e., SRS) standard errors. To do this, first conduct the desired analysis weighted by the normalized weight and then divide a *t*-statistic by the *DEFT* or divide an *F*-statistic by the *DEFF*. A third alternative is to create a new analytic weight variable in your data file by dividing the normalized analytic weight by the DEFF and using the adjusted weight in your analyses.

Table 4-6 shows estimates, standard errors, and design effects for 20 means and proportions selected from the ECLS-K:2011 school administrator data. Table 4-7 shows the median design effects for the same items but for subgroups. For each survey item, table 4-6 presents the number of cases for which data are nonmissing, the estimate, the standard error taking into account the actual sample design (*Design SE*), the standard error assuming SRS (*SRS SE*), the root design effect (*DEFT*), and the design effect (*DEFF*). Standard errors (*Design SE*) were produced in WesVar using JK2 based on the actual ECLS-K:2011 complex design. For each survey item, the variable name as it appears in the ECLS-K:2011 Electronic Codebook (ECB) is also provided in the table.

# Table 4-6.Standard errors and design effects for selected items from the school administrator<br/>questionnaire: Spring kindergarten 2011

Survey item	Variable	n	Estimate	SE	$SE_{SRS}$	DEFT	DEFF
School characteristics (proportion of ECIS-K:2011 schools	5)						
Participated in USDA lunch program	S2USDALN	843	76.35	1.660	1.464	1.134	1.286
Computer lab needs always adequate	S2COMPOK	750	68.24	1.918	1.700	1.128	1.273
Library needs always adequate	S2LBRYOK	811	75.38	1.906	1.513	1.260	1.588
Classroom needs always adequate	S2CLSSOK	849	79.62	1.877	1.382	1.358	1.844
Had access to local area network (LAN)	S2LANAVL	805	90.02	1.302	1.057	1.232	1.519
Had access to Internet	S2NETAVL	837	98.20	0.733	0.460	1.595	2.545
Offered before-school care	S2B4SCH	854	45.25	2.672	1.704	1.568	2.460
Offered half-day care	S2HLFDAY	842	11.59	1.804	1.103	1.636	2.676
Offered after school care	S2AFTSCH	854	67.21	1.849	1.606	1.151	1.325
Had PTA/PTO meetings 4 or more times a year	S2PTAMT	849	75.12	1.881	1.483	1.268	1.607
Had problem with crime in area	S2CRIME	848	35.99	2.097	1.649	1.272	1.619
Bullying happened on occasion	S2BULLY	853	60.38	2.496	1.674	1.491	2.222
Had individualized instruction daily	S2INDVDL	606	90.43	1.751	1.195	1.465	2.147
Received Title I funding	S2TT1	706	75.33	2.874	1.623	1.771	3.137
Received Title 3 funding	S2RECTT3	685	37.72	2.920	1.852	1.577	2.486
Had 2-year improvement plan	S22YRPLN	102	87.03	3.748	3.329	1.126	1.269
Hired outside consultant for advise	S2OUTCON	100	29.05	5.082	4.542	1.119	1.253
School characteristics (mean of ECLS-K:2011 schools)							
Total number of teachers	S2NUMTOT	547	27.59	0.836	0.702	1.191	1.418
Percent children eligible for free lunch	X2FLCH2_I	866	36.77	1.393	1.094	1.273	1.620
Percent children eligible for reduced-price lunch	X2RLCH2 I	866	7.32	0.402	0.331	1.214	1.475

NOTE: SE is the standard error based on the sample design.  $SE_{srs}$  is the standard error assuming simple random sampling. DEFT is the root design effect. DEFF is the design effect. Estimates produced with the restricted-use file. Due to top- and bottom-coding, the same estimates may not be obtained from the public-use file.

	Spring kin	ndergarten
Characteristic	DEFT	DEFF
All schools	1.270	1.613
School affiliation		
Public	1.331	1.772
Private	1.114	1.242
Catholic private	1.089	1.186
Other private	1.091	1.190
Census region <sup>1</sup>		
Northeast	1.213	1.472
Midwest	1.289	1.662
South	1.361	1.852
West	1.154	1.331
Locale		
City	1.308	1.711
Suburb	1.239	1.536
Town	1.102	1.216
Rural	1.309	1.715
Kindergarten enrollment		
1 to 50	1.028	1.056
51 to 80	1.118	1.250
81 to 110	1.123	1.262
111 or more	1.194	1.424
Percent minority enrolled		
0 to 15%	1.336	1.783
16 to 45%	1.233	1.521
46 to 85%	1.294	1.674
85 to 100%	1.368	1.872

Table 4-7.	Median design effects for the school administrator questionnaire, by school characteristic:
	Spring kindergarten 2011

<sup>1</sup> Northeast includes CT, MA, ME, NH, NJ, NY, PA, RI, and VT; Midwest includes IA, IL, IN, KS, MI, MN, MO, ND, NB, OH, SD, and WI; South includes AL, AR, DE, FL, GA, KY, MD, MS, LA, NC, OK, SC, TN, TX, VA, WV, and the District of Columbia; and West includes AK, AZ, CA, CO, HI, ID, MT, NM, , NV, OR, UT, WA, and WY.

NOTE: DEFT is the root design effect. DEFF is the design effect.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Tables 4-8 and 4-9 shows the same statistics for 40 items selected from the fall kindergarten child assessment, parent interview, and teacher data (at both the teacher and child level). Tables 4-10 and 4-11 are for spring kindergarten. Design effects for the teacher-level data are quite large compared to the rest because the intraclass correlation is 100 percent for children in the same class with the same teacher.

Survey item	Variable	n	Estimate	SE	$SE_{SRS}$	DEFT	DEFF
Scores (mean of ECLS-K:2011 students)							
Mathematics scale score	X1MSCAL	15,595	28.95	0.263	0.086	3.072	9.438
Reading scale score	X1RSCAL	15,669	34.42	0.277	0.093	2.972	8.834
Approaches to learning-parent	X1PRNAPP	12,900	3.18	0.007	0.004	1.637	2.679
Impulsive/overactive-parent	X1PRNIMP	12,897	2.05	0.009	0.006	1.562	2.439
Sad/lonely-parent	X1PRNSAD	12,913	1.48	0.005	0.003	1.508	2.274
Self-control—parent	X1PRNCON	12,914	2.89	0.007	0.005	1.462	2.138
Social interaction—parent	X1PRNSOC	12,918	3.44	0.009	0.005	1.809	3.273
Approaches to learning-teacher	X1TCHAPP	14,631	2.93	0.009	0.006	1.591	2.530
Attentional focus-teacher	X1ATTNFS	14,577	4.68	0.015	0.011	1.397	1.952
Externalizing problems—teacher	X1TCHEXT	14,632	1.61	0.009	0.005	1.748	3.054
Inhibitory control-teacher	X1INBCNT	14,577	4.88	0.017	0.011	1.549	2.400
Internalizing problems—teacher	X1TCHINT	14,548	1.47	0.007	0.004	1.644	2.703
Interpersonal—teacher	X1TCHPER	14,577	2.96	0.010	0.005	1.869	3.494
Self-control—teacher	X1TCHCON	14,617	3.08	0.009	0.005	1.758	3.090
Parent interview (proportion of ECLS-K:2011 students)							
Parent 1 worked 35 hours+/week	X1PAR1EMP	9,150	59.73	0.800	0.513	1.559	2.432
Parent 2 worked 35 hours+/week	X1PAR2EMP	9,511	87.93	0.695	0.334	2.080	4.327
Parent 1 currently married	P1CURMAR	13,399	70.82	0.926	0.393	2.358	5.559
Child practiced numbers everyday	P1NUMBRS	13,354	61.63	0.751	0.421	1.784	3.182
Parent has met teacher	P1METCHR	13,385	97.43	0.224	0.137	1.635	2.673
Child never complained about school	P1COMPLN	13,385	74.45	0.495	0.377	1.313	1.723
Used other language at home	P1ANYLNG	13,377	25.59	1.143	0.377	3.031	9.185
Teacher questionnaire (proportion of ECLS-K:2011 students)							
Teacher directed small group activities-1 hour	A1SMLGRP	14,910	40.64	1.332	0.402	3.312	10.972
Child selected activities—1 hour	A1CHCLDS	14,770	33.71	1.369	0.389	3.520	12.391
Had reading area in classroom	A1READAR	15,303	99.54	0.146	0.055	2.660	7.075
Had mathematics area in classroom	A1MATHAR	15,257	94.41	0.615	0.186	3.305	10.925
Teacher certified in elementary education	A1ELEMCT	14,720	85.58	1.747	0.290	6.031	36.377
Teacher has bachelor's degree or higher	A1HGHSTD	15,255	99.14	0.222	0.075	2.973	8.837
Child showed eagerness to learnoften/very							
often	T1SHOWS	14,821	71.59	0.606	0.370	1.636	2.678
Child worked independently-often/very often	T1WORKS	14,832	67.98	0.556	0.383	1.450	2.103
Child followed class rules-often/very often	T1FOLLOW	14,833	75.42	0.569	0.353	1.611	2.595
Child used complex sentence structure—							_
intermediate/proficient	T1CMPSEN	14,824	31.43	0.867	0.381	2.273	5.167
Child interpreted story read to him/her— intermediate/proficient	T1STORY	14,800	28.91	0.799	0.372	2.145	4.600
Child paid attention well—often/very often	TIATTEN	14,824	60.78	0.496	0.401	1.237	1.531

Table 4-8.Standard errors and design effects for selected items from the child assessment, parent<br/>interview, and teacher questionnaires: Fall kindergarten 2010

See note at end of table.

Table 4-8.Standard errors and design effects for selected items from the child assessment, parent<br/>interview, and teacher questionnaires: Fall kindergarten 2010—Continued

Survey item	Variable	n	Estimate	SE	$SE_{SRS}$	DEFT	DEFF
Others (mean of ECLS-K:2011 students)							
Child's age (in months)	X1KAGE	15,818	68.48	0.107	0.037	2.909	8.463
Child's height	X1HEIGHT	15,710	44.75	0.037	0.018	2.102	4.417
Child's weight	X1WEIGHT	15,703	47.31	0.122	0.077	1.577	2.488
Child's body mass index (BMI)	X1BMI	15,702	16.51	0.029	0.019	1.494	2.233
Total number of persons in household	X1HTOTAL	13,399	4.58	0.022	0.012	1.869	3.492
Total number of siblings in household	X1NUMSIB	13,399	1.49	0.019	0.010	1.977	3.909
Number of hours child spent in parental care	X1HRSNOW	13,207	7.23	0.208	0.107	1.936	3.749

NOTE: SE is the standard error based on the sample design.  $SE_{ss}$  is the standard error assuming simple random sampling. DEFT is the root design effect. DEFF is the design effect. Estimates produced with the restricted-use file. Due to top- and bottom-coding, the same estimates may not be obtained from the public-use file.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

# Table 4-9.Median design effects for the child assessment, parent interview, and teacher questionnaire<br/>data, by school and child characteristics: Fall kindergarten 2010

	Fall kinc	lergarten
Characteristic	DEFT	DEFF
All children	1.797	3.228
School affiliation		
Public	1.812	3.284
Private	1.665	2.770
Catholic private	1.657	2.746
Other private	1.564	2.447
Census region <sup>1</sup>		
Northeast	1.706	2.912
Midwest	1.697	2.881
South	1.938	3.755
West	1.768	3.125
Locale		
City	1.643	2.701
Suburb	1.823	3.322
Town	1.501	2.252
Rural	1.709	2.920
Sex		
Male	1.546	2.389
Female	1.570	2.464

See notes at end of table.

Table 4-9.	Median design effects for the child assessment, parent interview, and teacher questionnaire
	data, by school and child characteristics: Fall kindergarten 2010-Continued

	Fall kind	ergarten
Characteristic	DEFT	DEFF
Race/ethnicity		
White (not Hispanic)	1.607	2.583
Black (not Hispanic)	1.306	1.706
Hispanic	1.450	2.103
Asian (not Hispanic)	1.547	2.393
Pacific Islander (not Hispanic)	1.155	1.335
American Indian or Alaskan Native (not Hispanic)	0.965	0.933
Other (not Hispanic)	1.176	1.383

<sup>1</sup> Northeast includes CT, MA, ME, NH, NJ, NY, PA, RI, and VT; Midwest includes IA, IL, IN, KS, MI, MN, MO, ND, NB, OH, SD, and WI; South includes AL, AR, DE, FL, GA, KY, MD, MS, LA, NC, OK, SC, TN, TX, VA, WV, and the District of Columbia; and West includes AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, and WY.

NOTE: DEFT is the root design effect. DEFF is the design effect. SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 4-10.	Standard errors and design effects for selected items from the child assessment, parent
	interview, and teacher questionnaires: Spring kindergarten 2011

Survey item	Variable	n	Estimate	SE	$SE_{SRS}$	DEFT	DEFF
Scores (mean of ECLS-K:2011 students)							
Mathematics scale score	X2MSCAL	15,105	41.65	0.293	0.091	3.224	10.394
Reading scale score	X2RSCAL	15,139	49.07	0.298	0.095	3.128	9.784
Science scale score	X2SSCAL	14,945	11.22	0.077	0.023	3.287	10.802
Difference between fall and spring-mathematics		14,987	12.65	0.163	0.054	3.032	9.194
Difference between fall and spring-reading		15,066	14.61	0.228	0.062	3.702	13.705
Approaches to learning-parent	X2PRNAPP	11,542	3.14	0.008	0.005	1.775	3.151
Impulsive/overactive-parent	X2PRNIMP	11,535	1.91	0.009	0.007	1.356	1.840
Sad/lonely—parent	X2PRNSAD	11,564	1.47	0.005	0.003	1.447	2.095
Self-control—parent	X2PRNCON	11,566	2.95	0.007	0.005	1.498	2.244
Social interaction—parent	X2PRNSOC	11,578	3.45	0.009	0.005	1.705	2.907
Approaches to learning-teacher	X2TCHAPP	14,338	3.09	0.009	0.006	1.526	2.330
Attentional focus-teacher	X2ATTNFS	14,342	4.90	0.015	0.011	1.362	1.855
Externalizing problems—teacher	X2TCHEXT	14,367	1.64	0.010	0.005	1.825	3.331
Inhibitory control—teacher	X2INBCNT	14,336	5.06	0.015	0.011	1.419	2.013
Internalizing problems—teacher	X2TCHINT	14,347	1.51	0.007	0.004	1.627	2.648
Interpersonal—teacher	X2TCHPER	14,363	3.13	0.010	0.005	1.882	3.541
Self-control—teacher	X2TCHCON	14,365	3.17	0.011	0.005	2.015	4.062
Parent interview (proportion of ECLS-K:2011 students)							
Parent has TV rules for family	P2TVRULE	13,089	93.16	0.284	0.221	1.286	1.654
Parent has ever spanked child	P2EVSPNK	10,108	53.63	0.863	0.496	1.740	3.026
Child has visited library in past month	P2LIBRAR	13,385	58.80	0.747	0.425	1.756	3.082
Child has visited bookstore in past month	P2BKSTOR	13,375	55.67	0.795	0.429	1.851	3.428
Child has visited museum in past month	P2MUSEUM	13,368	34.22	0.817	0.410	1.991	3.964
Parent has received food stamps in past 12 months	P2FSTAMP	12,896	26.87	1.154	0.390	2.956	8.738
Parent said home not safe or somewhat safe to play	P2SAFEPL	13,313	30.15	0.780	0.398	1.961	3.846
Feacher questionnaires (proportion of ECLS-K:2011 students)							
Teacher used non-English languages in class	A2NONENG	14,204	16.24	1.203	0.309	3.888	15.116
Teacher received some or no supplies for science class	A2SCIMAT	14,210	37.66	1.448	0.406	3.563	12.697
Teacher directed individual activities—about 1 hour	A2INDVDL	14,014	35.38	0.987	0.404	2.443	5.969
Teacher had more than 50% children with parent volunteering regularly	A2REGHLP	14,313	12.59	0.965	0.277	3.480	12.109
Teacher agreed or strongly agreed that paperwork interfered with teaching	A2PAPRWR	14,293	36.47	1.366	0.402	3.394	11.517
Teacher agreed or strongly agreed that administrator was encouraging	A2ENCOUR	14,299	77.12	1.144	0.351	3.258	10.613
Parent has attended conferences during this school year	T2REGCO	13,593	91.04	0.497	0.245	2.029	4.116
Parent has come for informal meetings this school year	T2INFMT	10,810	85.59	0.503	0.338	1.489	2.216
Parent was very involved at the school	T2PARIN	14,000	27.36	0.712	0.377	1.890	3.572
Child was in program to teach English skills	T2PRGES	2,712	64.40	2.838	0.920	3.086	9.526

See note at end of table.

Table 4-10.	Standard errors and design effects for selected items from the child assessment, parent
	interview, and teacher questionnaires: Spring kindergarten 2011-Continued

Survey item	Variable	n	Estimate	SE	$SE_{SRS}$	DEFT	DEFF
Parent interview (proportion of ECLS-K:2011							
students)—Continued							
Child read books independently-intermediate or							
proficient level	T2READS	14,008	66.56	0.871	0.399	2.185	4.776
Others (mean of ECLS-K:2011 students)							
Child's age (in months)	X2KAGE	15,416	74.48	0.109	0.037	2.936	8.621
Child's height	X2HEIGHT	15,132	45.93	0.037	0.019	1.990	3.961
Child's weight	X2WEIGHT	15,119	50.13	0.136	0.085	1.600	2.560
Child's body mass index (BMI)	X2BMI	15,117	16.60	0.031	0.020	1.563	2.444
Total number of persons in household	X2HTOTAL	13,409	4.61	0.024	0.012	2.050	4.201
Total number of siblings in household	X2NUMSIB	13,409	1.51	0.019	0.010	1.987	3.950
Total number of persons in household less than 18							
years of age	X2LESS18	13,355	2.53	0.020	0.010	2.009	4.037

NOTE: *SE* is the standard error based on the sample design. *SE*<sub>srs</sub> is the standard error assuming simple random sampling. DEFT is the root design effect. DEFF is the design effect. Estimates produced with the restricted-use file. Due to top- and bottom-coding, the same estimates may not be obtained from the public-use file.

	Spring ki	ndergarten
Characteristic	DEFT	DEFF
All children	1.989	3.956
School affiliation		
Public	1.938	3.758
Private	1.686	2.843
Catholic private	1.548	2.399
Other private	1.817	3.303
Census region <sup>1</sup>		
Northeast	1.932	3.732
Midwest	1.847	3.410
South	2.089	4.362
West	2.209	4.886
Locale		
City	1.760	3.098
Suburb	2.101	4.411
Town	1.485	2.205
Rural	1.788	3.197
Sex		
Male	1.597	2.551
Female	1.631	2.660
Race/ethnicity		
White (not Hispanic)	1.842	3.392
Black (not Hispanic)	1.447	2.095
Hispanic	1.624	2.637
Asian (not Hispanic)	1.595	2.544
Pacific Islander (not Hispanic)	1.164	1.356
American Indian or Alaskan Native (not Hispanic)	1.051	1.104
Other (not Hispanic)	1.153	1.328

Table 4-11.Median design effects for the child assessment, parent interview, and teacher questionnaire<br/>data, by school and child characteristics: Spring kindergarten 2011

<sup>1</sup> Northeast includes CT, MA, ME, NH, NJ, NY, PA, RI, and VT; Midwest includes IA, IL, IN, KS, MI, MN, MO, ND, NB, OH, SD, and WI; South includes AL, AR, DE, FL, GA, KY, MD, MS, LA, NC, OK, SC, TN, TX, VA, WV, and the District of Columbia; and West includes AK, AZ, CA, CO, HI, ID, MT, NM, , NV, OR, UT, WA, and WY.

NOTE: DEFT is the root design effect. DEFF is the design effect.

# **5. RESPONSE RATES**

This chapter presents unit response rates and overall response rates for the different instruments included in the kindergarten, or base year, of the ECLS-K:2011. A unit response rate is the ratio of the number of units with completed interviews (for example, the units are students and the completed interviews are completed assessments) to the number of units sampled and eligible for the interview. Unit response rates are used to describe the outcomes of data collection activities and to measure the quality of the study. The overall response rate indicates the percentage of possible interviews completed, taking all survey stages into account.

## 5.1 Study Instruments

For the ECLS-K:2011 kindergarten data collection, there were several survey instruments, as shown in exhibit 5-1. Response rates are presented in section 5.2 for all of these instruments, separately for each round of data collection, and, for selected instruments, for combinations of rounds of data collection.

	Fall	Spring	
Survey instrument	2010	2011	Definition of completed interview
Child assessment <sup>1</sup>	Yes	Yes	Student has at least one set of scoreable mathematics/reading/ science data OR student has height/weight measurement
Parent interview	Yes	Yes	Parent answered all items in the family structure section of the questionnaire (FSQ) <sup>2</sup>
Teacher-level teacher questionnaire	Yes	Yes	Teacher has at least one completed item in this questionnaire and at least one base-year respondent in his or her class
Student-level teacher questionnaire	Yes	Yes	Teacher has at least one completed item in this questionnaire
Teacher-level special education teacher questionnaire	No	Yes	Student has special education teacher, and teacher has at least one completed item in this questionnaire

Exhibit 5-1. ECLS-K:2011 survey instruments and definition of completed interview: School year 2010–11

See notes at end of exhibit.

	E-11	C	
	Fall	Spring	
Survey instrument	2010	2011	Definition of completed interview
Student-level special education teacher questionnaire	No	Yes	Student has special education teacher and teacher has at least one completed item in this questionnaire
School administrator questionnaire	No	Yes	School administrator has at least one completed item in the school administrator questionnaire
Before and after school care questionnaires (BASC)	No	Yes	Student is eligible for BASC and has at least one set of BASC data
Child-level questionnaire (WCQ)	No	Yes	Student is eligible for and has at least one competed item in the WCQ
Center-based administrator questionnaire (CAQ)	No	Yes	Student is eligible for and has at least one completed item in the CAQ.
Center-based provider questionnaire (CTQ)	No	Yes	Student is eligible for and has at least one completed item in the CTQ
Home-based provider questionnaire (HTQ)	No	Yes	Student is eligible for and has at least one completed item in the HTQ

Exhibit 5-1.	ECLS-K:2011 survey instruments and definition of completed interview: School year
	2010–11—Continued

<sup>1</sup> The definition of complete child assessment does not include the executive function components. Because science was not fielded in the fall, the definition of fall complete child assessment does not include science. The definition of spring complete child assessment does include science. <sup>2</sup> In the spring data collection, fall nonrespondents were considered spring respondents if they answered all items in the Supplementary Items for Nonresponse Households (SPQ) section without having complete the FSQ section.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

# 5.2 Unit Response Rates and Overall Response Rates

All tables have weighted and unweighted response rates. The weight used in the computation of the student-level unit response rate is the student base weight (the product of the school base weight and the within-school student weight). For calculation of the school-level unit response rate, the school base weight is used. For a description of these weights, see chapter 4. While unweighted rates are useful for evaluating sample performance, only weighted rates are discussed in this section.

Tables 5-1 and 5-2 present weighted and unweighted school response rates for fall kindergarten and spring kindergarten, respectively, by selected school characteristics. Information on school characteristics is from the school frames drawn from the Common Core of Data (CCD) and Private School Survey (PSS). However, kindergarten enrollment and percent minority enrollment are from the School Administrator Questionnaire (SAQ) unless the school did not return an SAQ, in which case information from CCD/PSS was used. A responding school is one that allowed student sampling and child assessment to take place. School response rates reported in these tables reflect the levels of school cooperation before school substitution (i.e., substituted schools were excluded from both numerator and denominator of the response rate). Because schools agreed to participate at a much lower rate during the recruitment phase than expected, a decision was made to do school substitution. School substitution was used in primary sampling units (PSUs) in which more than half of the sampled public schools in the PSU had been identified as refusals. For a description of school substitution, see section 4.1.2.8 of chapter 4. Inclusion of substitute schools increases the sample size, but how well the sample represents the population should be assessed by the participation of the originally selected sampled schools. The original school sample, before substitution, included 1,352 schools. An additional 93 schools were added to the sample through substitution, meaning that an attempt was made to recruit a total of 1,446 schools during the base year of the study. Of the 1,352 schools in the original sample, 1,264 were eligible for the fall data collection. Table 5-1 presents information on the number of eligible schools providing consent for participation in the fall for both the original (i.e., before substitution) sample and the final sample that includes substitute schools. In the spring collection, four schools that were eligible in the fall became ineligible because the sampled students in these small schools left for other schools. The number of eligible schools in the spring is 1,260, Table 5-2 presents information on the number of eligible schools providing consent for participation in the spring for both the original (i.e., before substitution) sample and the final sample that includes substitute schools.

	Number of res	pondents <sup>1</sup>	Before-substitution response rates		
-	Before	After			
School characteristic	substitution	substitution	Weighted	Unweighted	
All schools	775	860	63.0	61.3	
School type					
Public	623	710	64.1	62.8	
Private	152	150	63.2	60.6	
Catholic	45	45	67.0	64.3	
Other private	107	105	62.0	59.1	
Census region <sup>2</sup>					
Northeast	120	140	60.9	57.4	
Midwest	180	190	73.8	72.4	
South	280	310	61.8	62.2	
West	190	220	59.4	58.1	
Locale					
City	250	277	66.0	64.4	
Suburb	279	310	62.3	59.5	
Town	66	70	60.9	64.1	
Rural	180	203	64.6	63.6	
Kindergarten enrollment					
1 to 50 students	245	253	63.4	63.3	
51 to 80 students	181	209	62.8	61.1	
81 to 110 students	180	200	66.5	64.5	
111 students or more	169	198	64.3	60.1	
Percent minority enrolled					
0 to 15	199	216	62.8	60.9	
16 to 45	211	241	61.1	59.9	
46 to 85	185	206	66.9	64.9	
86 to 100	180	197	71.7	66.7	

Table 5-1.Number of responding schools and before-substitution response rates, by selected school<br/>characteristics, fall kindergarten: School year 2010–11

<sup>1</sup> School where one or more students or parents participated. To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total.

<sup>2</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: A responding school is one that allowed student sampling and child assessment to take place. The weighted response rates were calculated using the school base weight.

	Number of	respondents <sup>1</sup>	Before-substitution r	response rates
	Before			
School characteristic	substitution	After substitution	Weighted	Unweighted
All schools	772	968	62.7	61.3
School type				
Public	625	815	63.1	61.8
Private	147	153	61.8	59.3
Catholic	44	50	64.4	62.9
Other private	103	103	60.9	57.9
Census region <sup>2</sup>				
Northeast	120	170	56.9	54.4
Midwest	180	200	74.4	72.7
South	280	350	60.7	60.6
West	190	250	58.6	58.1
Locale				
City	246	319	63.6	62.8
Suburb	279	351	60.9	58.2
Town	66	76	60.1	62.9
Rural	181	222	65.1	63.7
Kindergarten enrollment				
1 to 50 students	240	275	61.9	61.9
51 to 80 students	180	236	61.4	59.6
81 to 110 students	182	229	67.0	65.2
111 students or more	170	228	62.7	58.4
Percent minority enrolled				
0 to 15	199	231	62.6	60.3
16 to 45	211	269	59.2	58.1
46 to 85	183	241	65.6	63.3
86 to 100	179	227	70.1	66.5

Table 5-2.Number of responding schools and before-substitution response rates, by selected school<br/>characteristics, spring kindergarten: School year 2010–11

<sup>1</sup> School where one or more students or parents participated. To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total.

<sup>2</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: A responding school is one that allowed student sampling and child assessment to take place. The weighted response rates were calculated using the school base weight.

The before-substitution weighted response rate for fall and spring kindergarten was consistent across time periods: in the fall it was 63.0 percent, while in the spring, it was 62.7 percent. When looking at subgroup response rates, for school type, locale, and school enrollment, the weighted response rates are fairly consistent across subgroups. For census region and percent minority, there was more variability in the response rates of the subgroups. The pattern is true for both the fall and spring data collection.

Table 5-3 presents weighted and unweighted response rates, calculated at the school level, for the school administrator questionnaire that was administered in the spring data collection. Between fall and spring, some children transferred to new schools that were not part of the school sample selected for the study. The school administrator questionnaire was given to the 1,260 eligible schools in the spring school sample and 351 transfer schools. Table 5-3 does not include transfer schools because weighted response rates cannot be computed for schools with unknown selection probabilities. After substitution rates are shown for the school administrator questionnaire since estimates using the data from this questionnaire will come from both original and substitute schools. The weighted response weight for this questionnaire was 67.7 percent for the original sampled and substitute schools. The response rates for a few subgroups were much larger than the overall rate. The highest rate was in the Midwest region (76.5 percent), with the response rates for two other subgroups also exceeding 73 percent: kindergarten enrollment of 111 or more (74. 8 percent) and minority student enrollment between 46 and 85 percent of the student population (73.8 percent). The lowest response rate to the school administrator questionnaire was for the other private (non-Catholic) school subgroup at 56.9 percent. Among the 351 transfer schools eligible for the school administrator questionnaire, 146 completed this questionnaire, for an unweighted response rate of 41.6 percent.

		Response rates		
School characteristic	Number of respondents <sup>1</sup>	Weighted	Unweighted	
All schools	866	67.7	68.7	
School type				
Public	722	70.9	71.3	
Private	144	60.0	58.1	
Catholic	48	69.1	68.6	
Other private	96	56.9	53.9	
Census region <sup>2</sup>				
Northeast	150	69.2	69.0	
Midwest	190	76.5	76.3	
South	310	63.3	65.9	
West	220	64.6	66.6	
Locale				
City	279	68.2	68.4	
Suburb	313	67.4	67.9	
Town	70	64.6	71.4	
Rural	204	68.7	69.4	
Kindergarten enrollment				
1 to 50 students	253	63.4	64.1	
51 to 80 students	213	70.8	70.1	
81 to 110 students	201	72.1	71.0	
111 students or more	199	74.8	71.3	
Percent minority enrolled				
0 to 15	217	67.0	66.8	
16 to 45	249	68.5	70.1	
46 to 85	216	73.8	73.5	
86 to 100	184	67.4	66.2	

# Table 5-3.Response rates for the school administrator questionnaire, by selected school<br/>characteristics, spring kindergarten: School year 2010–11

<sup>1</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>2</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: Respondents are administrators in eligible schools that are in the original probability sample and returned the school administrator questionnaire with at least one response. The weighted response rates were calculated using the school base weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

The remaining tables in this chapter present response rates for the different components of data collection (the child assessment, parent interview, general classroom teacher questionnaires, school administrator questionnaire, special education teacher questionnaires, and before- and after-school care

provider questionnaires) computed at the student level. Response rates for all students and response rates by selected school and student background characteristics are both provided. Information on school characteristics comes from the sampling frame, or from the school administrator questionnaire for schools that completed this questionnaire. Information on student characteristics was collected from parents in the parent interview and from school staff during the process of sampling students for the study.

In order to compute response rates by different characteristics, the selected characteristics must be known for both respondents and nonrespondents. In the fall data collection, information on the school characteristics presented in the tables was known for all schools since they were all original sampled schools and the information was available from the sampling frame or the school administrator questionnaire for characteristics such as kindergarten enrollment or percent minority, if they were not missing in the questionnaire. For a very small percentage of cases that have missing data for student's race/ethnicity and/or month and year of birth from both parent interviews and student sampling (0.2 percent or less), data for these characteristics were imputed using the modal value of the affected variable for the students in that school. Also students' sex was imputed based on the student's first name for 0.2 percent of cases. As a result of this imputation for the purpose of computing response rates, the number of respondents by subgroup shown in the tables throughout this chapter may not correspond exactly to data in the data file.<sup>1</sup>

In the fall of kindergarten, 18,526 students were sampled within the 860 participating schools. Students who were determined to be ineligible to participate and students who were excluded from the assessment due to lack of accommodations are not included in the calculation of response rates for the child assessment.<sup>2</sup> Therefore 18,099 is the denominator for the unweighted fall child assessment response rate and 18,170 is the denominator for the unweighted fall parent and teacher response rates. The parent and teacher rates are computed at the student level, meaning they indicate the percentages of students for whom a parent interview was completed or for whom a teacher questionnaire was received, respectively.

Table 5-4 presents weighted and unweighted student-level response rates for the child assessment and parent interview in the fall kindergarten data collection, by selected school characteristics. For the child assessments, a child is considered a respondent if the child had scoreable reading and/or mathematics data, or height and/or weight measurements. For the fall child assessment, the weighted student-level response rate was 87.0 percent. The highest response rates were in the South census region

<sup>&</sup>lt;sup>1</sup> These imputed values were only used for nonresponse analyses and computing response rates. Variables with imputed data for students' race/ethnicity, date of birth, and sex are not available on the data file.

<sup>&</sup>lt;sup>2</sup> There were about 360 students in the fall sample who were identified as not eligible. These are students who had moved out of the country, or changed grades or withdrew from a kindergarten program between the time of student sampling and the time of student assessment.

(90.0 percent) and for Catholic schools (89.9 percent). The lowest response rates were found in the West and Northeast at 82.8 percent and 84.3 percent, respectively. For the fall parent interview, the weighted response rate was 74.2 percent, with a pattern by subgroup that is similar to what was observed for the child interview.

School characteristic	Chi	ld assessmen	it <sup>1</sup>	Parent interview <sup>2</sup>		
	Number of	Response rates		Number of	Response rates	
	respondents <sup>3</sup>	Weighted	Unweighted	respondents <sup>3</sup>	Weighted	Unweighted
All students	15,756	87.0	87.1	13,399	74.2	73.7
School type						
Public	13,666	86.9	87.0	11,570	73.8	73.3
Private	2,090	87.6	87.4	1,829	77.4	76.5
Catholic	760	89.9	88.1	680	80.2	78.8
Other private	1,330	86.6	87.1	1,149	76.1	75.2
Census region <sup>4</sup>						
Northeast	2,380	84.3	83.4	2,020	71.4	70.6
Midwest	3,600	88.1	88.6	3,100	75.2	75.8
South	5,890	90.0	90.3	5,080	78.0	77.7
West	3,890	82.8	83.4	3,200	69.0	68.4
Locale						
City	5,128	87.2	87.1	4,158	71.4	70.3
Suburb	5,606	85.5	86.0	4,859	74.1	74.3
Town	1,284	88.0	87.1	1,107	74.8	74.8
Rural	3,738	88.5	88.6	3,275	77.9	77.3
Kindergarten enrollment						
1 to 50 students	4,002	88.6	89.2	3,390	75.4	75.2
51 to 80 students	4,130	88.1	88.0	,	76.4	
81 to 110 students	3,810	85.5	85.1	3,267	73.8	72.6
111 students or more	3,814	86.2	85.9	3,184	72.0	71.5

Table 5-4.	Response rates for child assessment and parent interview, by selected school
	characteristics, fall kindergarten: School year 2010-11

See notes at end of table.

# Table 5-4. Response rates for child assessment and parent interview, by selected school characteristics, fall kindergarten: School year 2010–11—Continued

	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of	Response rates		Number of Response rates		nse rates
School characteristic	respondents <sup>3</sup>	Weighted U	nweighted	respondents <sup>3</sup>	Weighted	Unweighted
Percent minority enrolled						
0 to 15	3,791	86.4	86.3	3,470	78.8	78.7
16 to 45	4,494	86.6	86.6	4,013	76.6	77.1
46 to 85	3,862	86.6	86.7	3,221	72.2	72.1
86 to 100	3,609	88.8	88.7	2,695	67.7	65.9

<sup>1</sup> Student had scoreable reading and/or mathematics data, or student had height and/or weight measurement.

<sup>2</sup> Parent completed family structure portion of parent interview.

<sup>3</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>4</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: The weighted response rate was calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-5 presents weighted and unweighted student-level response rates for the child assessment and parent interview in the fall kindergarten data collection, by selected student characteristics. Operational problems prevented the study from conducting data collection activities in some areas of the country where Asian, Native Hawaiian/Other Pacific Islander, and American Indian/Alaska Native students sampled for the study resided. For this reason, response rates for these groups of students are lower than response rates for students of other racial/ethnic backgrounds. This is true for the rates for all the components discussed in this chapter.

For the fall child assessment, the weighted student-level response rate was 87.0 percent. The highest response rates were for Black students (90.8 percent) and students in the "other" race/ethnicity category (95.3 percent). The lowest response rates were found in subgroups that had fewer than 250 responding students: Native Hawaiian/Other Pacific Islanders (79.8 percent), American Indians or Alaska Natives (75.1 percent), students born in 2003 (83.4 percent), and students born in 2006 (80.5 percent). Among the subgroups that had a larger sample size, White students had the lowest response rate. This rate was 86.0 percent, which was only 1 percent lower than the rate for the full sample. For the fall parent interview, the weighted response rate was 74.2 percent. Here the highest response rates were for White students (77.0 percent), Black students (73.9 percent), and students in the "other" race/ethnicity category (87.4 percent), and the lowest rates were again found among the subgroups with smaller sample sizes: Native Hawaiian/Other Pacific Islanders (64.6 percent), American Indians or Alaska Natives (54.4 percent), students born in 2003 (65.5 percent), and students born in 2006 (65.2 percent). Asian students

also had low response rates for both child assessment and parent interview, 81.7 and 61.2 percent, respectively.

	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of	Response rates Weighted Unweighted		Number of	Response rates	
Student characteristic	respondents			respondents	Weighted	Unweighted
All Students	15,756	87.0	87.1	13,399	74.2	73.7
Sex						
Male	8,057	86.8	86.8	6,889	74.5	73.9
Female	7,699	87.2	87.2	6,510	74.0	73.6
Race/ethnicity						
White, non-Hispanic	7,645	86.0	85.9	6883	77.0	77.1
Black, non-Hispanic	2,139	90.8	91.3	1732	73.9	73.6
Hispanic	3,801	87.6	88.3	3041	69.7	70.3
Asian, non-Hispanic	1,214	81.7	81.3	900	61.2	60.0
Native Hawaiian/						
Other Pacific						
Islander, non-						
Hispanic	81	79.8	77.9	66	64.6	63.5
American Indian or						
Alaska Native, non-						
Hispanic	155	75.1	78.3	107	54.4	54.0
Other, non-Hispanic <sup>3</sup>	721	95.3	95.1	670	87.4	87.8
Year of birth <sup>4</sup>						
2003	70	83.4	82.6	60	65.5	63.3
2004	4,860	88.0	88.2	4,190	76.0	75.6
2005	10,790	86.6	86.6	9,130	73.6	73.1
2006	40	80.5	81.8	30	65.2	61.4

Table 5-5.	Response rates for child assessment and parent interview, by selected student
	characteristics, fall kindergarten: School year 2010-11

<sup>1</sup> Student had scoreable reading and/or mathematics data, or student had height and/or weight measurement.

<sup>2</sup> Parent completed family structure portion of parent interview.

<sup>3</sup> This category includes children who are more than one race.

<sup>4</sup> Sample sizes have been rounded to the nearest 10. Therefore, detail may not sum to total.

NOTE: The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-6 presents the weighted and unweighted response rates for the general classroom teacher questionnaires in the fall kindergarten data collection, by selected school characteristics. The first set of rates is for teacher response to the teacher-level questionnaire. For this questionnaire, the weighted response rate is 84.7 percent. The highest response rate was for students in Catholic schools (90.8 percent), while the lowest rate was found in the Northeast region (81.4 percent). For the student-level teacher questionnaire, the final weighted response rate was 82.0 percent. Again, the highest response rate was for students in Catholic schools (89.7 percent), while the lowest rate was in the West region (77.0 percent).

School characteristic	Teacher questionnaire (teacher-level)			Teacher questionnaire (student-level)		
	Number of	Response rates		Number of	Response rates	
	respondents <sup>1</sup>	Weighted Ur	weighted	respondents <sup>1</sup>	Weighted U	nweighted
All students	15,330	84.7	84.4	14,865	82.0	81.8
School type						
Public	13,302	84.5	84.3	12,832	81.5	81.3
Private	2,028	86.4	84.9	2,033	85.8	85.1
Catholic	760	90.8	88.1	756	89.7	87.6
Other private	1,268	84.3	83.0	1,277	83.9	83.6
Census region <sup>2</sup>						
Northeast	2,270	81.4	79.4	2,220	79.2	77.5
Midwest	3,570	87.8	87.3	3,530	85.9	86.2
South	5,630	85.3	86.0	5,510	83.9	84.2
West	3,860	82.7	82.6	3,620	77.0	77.3
Locale						
City	4,835	82.6	81.7	4,655	79.2	78.7
Suburb	5,581	85.3	85.4	5,419	82.2	82.9
Town	1,227	81.8	83.0	1,219	82.3	82.4
Rural	3,687	88.0	87.0	3,572	85.2	84.3
Kindergarten enrollment						
1 to 50 students	3,940	87.4	87.4	3,873	85.4	85.9
51 to 80 students	4,066	87.0	86.3	3,957	84.3	84.0
81 to 110						
students	3,637	81.7	80.8	3,468	77.8	77.1
111 students or more	3,687	83.3	82.8	3,567	81.3	80.1
Percent minority enrolled						
0 to 15	3,803	87.1	86.3	3,717	84.9	84.3
16 to 45	4,382	84.2	84.2	4,251	81.3	81.7
46 to 85	3,813	84.9	85.3	3,677	82.5	82.3
86 to 100	3,332	82.3	81.5	3,220	79.1	78.8

Table 5-6.Response rates for teacher questionnaires, by selected school characteristics, fall<br/>kindergarten: School year 2010–11

<sup>1</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>2</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: A respondent is defined as a child for whom a teacher questionnaire was returned and the questionnaire had at least one response. The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

Table 5-7 presents the weighted and unweighted response rates for the general classroom teacher questionnaires in the fall kindergarten data collection, by selected student characteristics. The first set of rates is for teacher response to the teacher-level questionnaire. Overall, the teacher questionnaire response rates for students with different characteristics were fairly consistent. No response rate was more than 3 percent higher than the full sample rate except for students in the "other" race/ethnicity group. A few rates were lower than the average rate. However, each of the subgroups with a response rate lower than the average had a small number of respondents: Native Hawaiian/Other Pacific Islanders (78.7 percent), American Indians or Alaska Natives (78.3 percent), and students born in 2006 (79.9 percent). For the student-level teacher questionnaire, the lowest rates were again found for groups with small sample sizes: Native Hawaiian/Other Pacific Islanders (73.3 percent), American Indians or Alaska Natives (78.0 percent).

Table 5-8 presents the overall weighted and unweighted response rates for the child assessment and the parent interview in the fall kindergarten data collection, by selected school characteristics. The rates in this table are the product of the fall school response rate in table 5-1 (63.0 percent, before school substitution) and the fall child/parent response rates in table 5-4 (87.1 percent). The final response rate for fall child assessment was 54.8 percent. Looking at child assessment response rates by school characteristics, three groups had rates greater than 60 percent; students in Catholic schools (60.2 percent), students attending schools in the Midwest region (65.0 percent), and students attending schools in which the percentage of enrolled students were racial/ethnic minorities was 86 percent or higher (63.7 percent), while one subgroup had a rate of less than 50 percent: the West (49.2 percent). The overall response rate for the fall parent interview was 46.7 percent (the product of the fall school response rate (63.0 percent) and the fall parent response rate (73.7 percent)). Looking at parent interview response rates by school characteristics, three groups had rates greater than 50 percent: students in Catholic schools (53.7 percent), students in the Midwest (55.5 percent), and students in Catholic schools (53.7 percent), students in the Midwest (55.5 percent), and students in rural schools (50.3 percent). The lowest response rate was in the West with a rate of 41.0 percent.

		her question eacher-leve			Teacher questionnaire (student-level)			
	Number of Response rates			Number of Response rates				
Student characteristic	respondents		Unweighted	respondents		Unweighted		
All students	15,330	84.7	84.4	14,865	82.0	81.8		
Sex								
Male	7,873	84.8	84.4	7,624	82.0	81.8		
Female	7,457	84.6	84.3	7,241	82.0	81.9		
Race/ethnicity								
White, non-Hispanic	7,529	84.4	84.3	7,344	82.3	82.3		
Black, non-Hispanic	2,060	87.6	87.5	2,025	85.4	86.0		
Hispanic	3,695	84.7	85.5	3,521	80.6	81.4		
Asian, non-Hispanic	1,114	75.9	74.3	1,064	72.1	70.9		
Native Hawaiian/								
Other Pacific								
Islander	81	78.7	77.9	77	73.3	74.0		
American Indian or								
Alaska Native,								
non-Hispanic	160	78.3	80.8	147	71.9	74.2		
Other, non-Hispanic <sup>1</sup>	691	90.6	90.6	687	90.1	90.0		
Year of birth <sup>2</sup>								
2003	80	86.4	84.4	70	78.0	77.8		
2004	4,760	85.8	85.9	4,630	83.7	83.7		
2005	10,460	84.2	83.7	10,130	81.3	81.0		
2006	40	79.9	79.5	40	80.5	81.8		

Table 5-7.Response rates for teacher questionnaires, by selected student characteristics, fall<br/>kindergarten: School year 2010–11

<sup>1</sup> This category includes children who are more than one race.

<sup>2</sup> Sample sizes have been rounded to the nearest 10. Therefore, detail may not sum to total.

NOTE: A respondent is defined as a child for whom a teacher questionnaire was returned and the questionnaire had at least one response. The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

	Chi	ld assessment	1	Parent interview <sup>2</sup>			
	Number of	Overall resp	Overall response rates		Overall response rates		
School characteristic	respondents <sup>3</sup>	Weighted U	nweighted	respondents <sup>3</sup>	Weighted U	Jnweighted	
All students	15,756	54.8	53.4	13,399	46.7	45.2	
School type							
Public	13,666	55.7	54.6	11,570	47.3	46.0	
Private	2,090	55.4	53.0	1,829	48.9	46.4	
Catholic	760	60.2	56.6	680	53.7	50.7	
Other private	1,330	53.7	51.5	1,149	47.2	44.4	
Census region <sup>4</sup>							
Northeast	2,380	51.3	47.9	2,020	43.5	40.5	
Midwest	3,600	65.0	64.1	3,100	55.5	54.9	
South	5,890	55.6	56.2	5,080	48.2	48.3	
West	3,890	49.2	48.5	3,200	41.0	39.7	
Locale							
City	5,128	57.6	56.1	4,158	47.1	45.3	
Suburb	5,606	53.3	51.2	4,859	46.2	44.2	
Town	1,284	53.6	55.8	1,107	45.6	47.9	
Rural	3,738	57.2	56.3	3,275	50.3	49.2	
Kindergarten enrollment							
1 to 50 students	4,002	56.2	56.5	3,390	47.8	47.6	
51 to 80 students	4,130	55.3	53.8	3,558	48.0	46.1	
81 to 110 students	3,810	56.9	54.9	3,267	49.1	46.8	
111 students or more	3,814	55.4	51.6	3,184	46.3	43.0	

Table 5-8.Overall response rates for child assessment and parent interview, by selected school<br/>characteristics, fall kindergarten: School year 2010–11

Table 5-8.Overall response rates for child assessment and parent interview, by selected school<br/>characteristics, fall kindergarten: School year 2010–11—Continued

	Child assessment <sup>1</sup> Number of Overall response rates respondents <sup>3</sup> Weighted Unweighted			Parent interview <sup>2</sup>		
School characteristic				Number of respondents <sup>3</sup>		sponse rates Unweighted
Percent minority enrolled						
0 to 15	3,791	54.3	52.6	3,470	49.5	47.9
16 to 45	4,494	52.9	51.9	4,013	46.8	46.2
46 to 85	3,862	57.9	56.3	3,221	48.3	46.8
86 to 100	3,609	63.7	59.2	2,695	48.5	44.0

<sup>1</sup> Student had scoreable reading and/or mathematics data, or student had height and/or weight measurement.

<sup>2</sup> Parent completed family structure portion of parent interview.

<sup>3</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>4</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin.

South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: The weighted overall response rates were calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The student base weight is the product of the school base weight and the within-school student weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-9 presents overall weighted and unweighted response rates for the general classroom teacher questionnaires in the fall kindergarten data collection, by selected school characteristics. The rates in this table are the product of the fall school response rate in table 5-1 (63 percent, before substitution) and the fall teacher response rates in table 5-6 (84.4 percent and 81.8 percent). The overall response rate for the teacher-level questionnaire was 53.4 percent. The highest response rate was found in the Midwest region (64.8 percent), and the lowest rate was found in the West (49.1 percent). The overall response rate for the student-level teacher questionnaire was lower, at 51.7 percent. The highest rate was found in the Midwest (63.4 percent), and the lowest rates were found in the Northeast and West regions, at 48.2 percent and 45.8 percent respectively.

		ner questionnai eacher-level)	re	Teacher questionnaire (student-level)			
	Number of	Overall respo	onse rates	Number of	Overall response rate		
School characteristic	respondents <sup>1</sup>	Weighted Ur		respondents <sup>1</sup>	Weighted Un		
All students	15,330	53.4	51.7	14,866	51.7	50.1	
School type							
Public	13,302	54.2	52.9	12,833	52.2	51.1	
Private	2,028	54.6	51.4	2,033	54.2	51.6	
Catholic	760	60.8	56.6	756	60.1	56.3	
Other private	1,268	52.3	49.1	1,277	52.0	49.4	
Census region <sup>2</sup>							
Northeast	2,270	49.6	45.6	2,220	48.2	44.5	
Midwest	3,570	64.8	63.2	3,530	63.4	62.4	
South	5,630	52.7	53.5	5,510	51.9	52.4	
West	3,860	49.1	48.0	3,620	45.8	44.9	
Locale							
City	4,835	54.5	52.6	4,656	52.3	50.7	
Suburb	5,581	53.1	50.8	5,419	51.2	49.3	
Town	1,227	49.8	53.2	1,219	50.1	52.8	
Rural	3,687	56.8	55.3	3,572	55.0	53.6	
Kindergarten enrollment							
1 to 50 students	3,940	55.4	55.3	3,873	54.1	54.4	
51 to 80 students	4,066	54.6	52.7	3,957	52.9	51.3	
81 to 110 students	3,637	54.3	52.1	3,469	51.7	49.7	
111 students or more	3,687	53.6	49.8	3,567	52.3	48.1	
Percent minority enrolled							
0 to 15	3,803	54.7	52.6	3,717	53.3	51.3	
16 to 45	4,382	51.4	50.4	4,252	49.7	48.9	
46 to 85	3,813	56.8	55.4	3,677	55.2	53.4	
86 to 100	3,332	59.0	54.4	3,220	56.7	52.6	

Table 5-9.Overall response rates for teacher questionnaires, by selected school characteristics, fall<br/>kindergarten: School year 2010–11

<sup>1</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>2</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: A respondent is defined as a child for whom a teacher questionnaire was returned and the questionnaire had at least one response. The weighted overall response rates were calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The student base weight is the product of the school base weight and the within-school student weight. SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011. Because recruitment of schools continued through the fall and into the spring, additional students were eligible for the study in the spring. Therefore, in the spring kindergarten collection, 20,601 students were part of the full sample. Students who were determined to be ineligible to participate and students who were excluded from the assessment due to lack of accommodations are not included in the calculation of response rates for the child assessment.<sup>3</sup> The denominator for the unweighted child assessment response rate is 20,158. The denominator for the unweighted parent response rate is 20,234. In spring kindergarten, there were students who were homeschooled<sup>4</sup> and, therefore, they were not eligible for the teacher questionnaires. The denominator for the teacher response rate is 20,197. As with the fall response rates, the parent and teacher rates are computed at the student level, meaning they indicate the percentages of students for whom a parent interview was completed or for whom a teacher questionnaire was received, respectively.

Table 5-10 presents weighted and unweighted response rates for the child assessment and the parent interview in the spring kindergarten data collection, by selected school characteristics. As noted above in the discussion of the fall response rates, in order to compute response rates by different characteristics, the selected characteristics must be known for both respondents and nonrespondents. Unlike in the fall data collection, information on the school characteristics presented in the tables was not known for all schools in the spring data collection. Between the fall and spring, some children transferred to new schools that were not part of the school sample selected for the study, did not respond to the study, and did not have information available in the frame. In the tables presenting response rates for the spring data collection, some characteristics have an "unknown" category that includes students in these transfer schools. In spring kindergarten, there also were students who were homeschooled and, therefore, the school characteristics do not apply to them. Lastly, there was also a small number of students who moved to schools outside of the sampled PSUs and were not assessed in those schools, or students who moved and could not be located at all; their school characteristics also are unknown. The category "unknown" in the following tables includes the homeschooled students, students in transfer schools, students who moved out of the sampled PSUs and were not assessed, and students who could not be located. Although presented in the tables, students included in this "unknown" category are excluded from the discussion of response rates among subgroups because of their small sample sizes and low response rates. As was the case in the fall, for a very small percentage of cases that have missing data for student's race/ethnicity and/or month and year of birth from both parent interviews and student sampling (0.2 percent or less),

<sup>&</sup>lt;sup>3</sup> There were about 360 students in the spring sample who were identified as not eligible. These are students who had moved out of the country, or died, or changed grades or withdrew from a kindergarten program between the time of student sampling and the time of student assessment for fall or spring.

<sup>&</sup>lt;sup>4</sup> These are students who were enrolled in a school at the time of sampling but left school to become homeschooled between the fall and spring data collections.

data for these characteristics were imputed using the modal value of the affected variable for the students in that school. Also students' sex was imputed based on the student's first name for 0.2 percent of cases.<sup>5</sup>

	Chi	ld assessment <sup>1</sup>	Parent interview <sup>2</sup>			
	Number of Response rates			Number of Response		nse rates
School characteristic	respondents <sup>3</sup>	Weighted Un	weighted	respondents <sup>3</sup>	Weighted	Unweighted
All students	17,207	85.2	85.4	13,611	67.1	67.3
School type						
Public	15,060	87.3	87.2	11,769	67.9	67.9
Private	2,132	87.0	86.7	1,721	70.3	69.9
Catholic	838	89.3	86.7	702	75.4	72.7
Other private	1,294	85.8	86.6	1,019	67.6	68.1
Homeschool/ Unknown						
school type	15	3.1	3.4	121	28.0	27.8
Census region <sup>4</sup>						
Northeast	2,880	83.9	83.4	2,230	64.4	64.5
Midwest	3,600	87.8	87.9	2,910	70.2	70.5
South	6,300	89.9	90.0	4,910	69.7	69.9
West	4,430	85.2	85.3	3,440	66.3	66.3
Unknown	20	3.1	3.4	120	28.0	27.8
Locale						
City	5,718	86.4	86.4	4,296	64.8	64.6
Suburb	6,234	86.4	86.4	5,042	69.6	69.7
Town	1,328	89.4	88.8	1,049	69.2	69.9
Rural	3,892	89.0	89.0	3,087	70.3	70.4
Unknown	35	6.6	7.6	137	29.4	29.8

Table 5-10.	Response rates for child assessment and parent interview, by selected school
	characteristics, spring kindergarten: School year 2010-11

<sup>&</sup>lt;sup>5</sup> These imputed values were only used for nonresponse analyses and computing response rates. Variables with imputed data for students' race/ethnicity, date of birth, and sex are not available on the data file.

	Chil	ld assessment <sup>1</sup>		Pare	ent interviev	$N^2$
	Number of Response rates		Number of	Respor	nse rates	
School characteristic	respondents <sup>3</sup>	Weighted U	nweighted	respondents <sup>3</sup>	Weighted	Unweighted
Kindergarten						
enrollment						
1 to 50 students	4,226	88.0	88.5	3,330	69.0	69.5
51 to 80 students	4,456	87.2	86.9	3,578	69.7	69.5
81 to 110 students	4,256	87.2	87.0	3,267	67.2	66.4
111 students or more	4,247	87.1	86.4	3,304	66.9	67.0
Unknown	22	4.3	4.9	132	29.0	29.4
Percent minority						
enrolled						
0 to 15	3,946	87.2	87.2	3,377	74.2	74.4
16 to 45	4,786	86.9	86.3	3,964	70.5	71.2
46 to 85	4,351	87.3	87.3	3,256	65.1	65.0
86 to 100	4,101	88.2	88.3	2,881	61.7	61.6
Unknown	23	4.4	5.1	133	29.1	29.6

Table 5-10.Response rates for child assessment and parent interview, by selected school<br/>characteristics, spring kindergarten: School year 2010–11—Continued

<sup>T</sup> Student had scoreable reading and/or mathematics data, or student had height and/or weight measurement.

<sup>2</sup> Parent completed family structure portion of parent interview.

<sup>3</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>4</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Havaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

The weighted response rate for the spring child assessment was 85.2 percent. When looking at subgroups, students in Catholic schools, in the South region, and those in towns and rural areas had the highest response rates at 89.3, 89.9, 89.4, and 89.0 percent, respectively. The lowest rate was observed in the Northeast (83.9 percent). For the parent interview, the overall response rate in the spring was 67.1 percent. The highest response rate was for Catholic school parents (75.4 percent). All other subgroups had a response rate of between 61.7 percent (students in schools with over 85 percent minority enrollment) and 74.2 percent (students in schools with 15 percent or less minority enrollment).

Table 5-11 presents weighted and unweighted response rates for the child assessment and the parent interview in the spring kindergarten data collection, by selected student characteristics. As with fall of kindergarten, operational problems prevented the study from conducting data collection activities in some areas of the country where Asian, Native Hawaiian/Other Pacific Islander, and American

Indian/Alaska Native students sampled for the study resided. For this reason, response rates for these groups of students are lower than response rates for students of other racial/ethnic backgrounds.

	Chi	ild assessme	ent <sup>1</sup>	Parent interview <sup>2</sup>			
	Number of		nse rates	Number of		nse rates	
Student characteristic	respondents	Weighted	Unweighted	respondents	Weighted	Unweighted	
All students	17,207	85.2	85.4	13,611	67.1	67.3	
Sex							
Male	8,784	84.8	84.9	7,001	67.1	67.4	
Female	8,423	85.8	85.8	6,610	67.2	67.2	
Race/ethnicity							
White, non-							
Hispanic	8,122	83.9	84.2	6,827	69.9	70.6	
Black, non-							
Hispanic	2,252	86.4	86.5	1,561	60.1	59.6	
Hispanic	4,323	87.9	88.6	3,236	65.1	66.0	
Asian, non-							
Hispanic	1,472	81.2	80.6	1,149	64.6	62.7	
Native Hawaiian/							
Other Pacific							
Islander, non-							
Hispanic	112	78.8	73.7	72	52.0	47.4	
American Indian or							
Alaska Native,							
non-Hispanic	160	71.5	73.7	98	47.5	45.2	
Other, non-Hispanic <sup>3</sup>	766	91.6	91.6	668	79.9	79.4	
Year of birth <sup>4</sup>							
2003	80	81.0	79.4	60	64.7	59.0	
2004	5,260	85.9	86.4	4,170	67.6	68.2	
2005	11,840	85.0	85.0	9,350	67.0	66.9	
2006	30	74.3	76.7	30	57.1	61.4	

 Table 5-11.
 Response rates for child assessment and parent interview, by selected student characteristics, spring kindergarten: School year 2010–11

<sup>1</sup> Student had scoreable reading and/or mathematics data, or student had height and/or weight measurement.

<sup>2</sup> Parent completed family structure portion of parent interview.

<sup>3</sup> This category includes children who are more than one race.

<sup>4</sup> Sample sizes have been rounded to the nearest 10. Therefore, detail may not sum to total.

NOTE: The weighted response rates were calculated using the student base weight (the product of the school base weight and the within- school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

The weighted response rate for the spring child assessment was 85.2 percent. When looking at the subgroups, students in the "other" race/ethnicity group had the highest response rate at 91.6 percent.

The lowest rates were observed for the subgroups with the smallest sample sizes: Native Hawaiian/Other Pacific Islanders (78.8 percent), American Indians or Alaska Natives (71.5 percent), and students born in 2003 (81.0 percent) or 2006 (74.3 percent). For the parent interview, the overall response rate in the spring was 67.1 percent. The highest response rate was among parents of students classified as other race (79.9 percent). The parent response rate was lowest for American Indians or Alaska Natives (47.5 percent).

Table 5-12 presents weighted and unweighted response rates for the general classroom teacher questionnaires in the spring kindergarten data collection, by selected school characteristics. The weighted response rate for the teacher-level questionnaire was 80.6 percent. The highest rates were observed in the Midwest region (87.7 percent), rural areas (87.8 percent), and schools in which the percentage of enrolled students were racial/ethnic minorities was 15 percent or lower (86.9 percent). The lowest rates were found in the Northeast (77.4 percent), the West (78.9 percent), cities (77.9 percent), and schools with a minority student enrollment percentage of 86 percent or more (77.5 percent). For the student-level teacher questionnaires, the weighted response rate was 79.5 percent. Again, the highest rates were observed in the Midwest (85.4 percent), rural areas (86.6 percent), and schools in which the percentage of enrolled students were racial/ethnic minorities was 15 percent, and schools in which the highest rates were found in the Northeast (76.3 percent), west (77.2 percent), cities (77.5 percent), while the lowest rates were found in the Northeast (76.3 percent), West (77.2 percent), cities (77.5 percent), and schools with a minority student enrollment percentage of 86 percent or lower (85.1 percent), while the lowest rates were found in the Northeast (76.3 percent), West (77.2 percent), cities (77.5 percent), and schools with a minority student enrollment percentage of 86 percent of more (77.1 percent).

		her question eacher-level		Teacher questionnaire (student-level)		
School	Number of	Respo	nse rates	Number of	Respor	nse rates
characteristic	respondents <sup>1</sup>	Weighted	Unweighted	respondents <sup>1</sup>	Weighted	Unweighted
All students	16,233	80.6	80.4	16,033	79.5	79.4
School type						
Public	14,154	82.1	81.6	13,988	81.0	80.7
Private	2,079	84.7	84.4	2,045	83.5	83.1
Catholic	796	83.2	82.4	801	83.2	82.9
Other private	1,283	85.5	85.8	1,244	83.7	83.2
Census region <sup>2</sup>						
Northeast	2,620	77.4	75.6	2,600	76.3	75.2
Midwest	3,630	87.7	88.0	3,530	85.4	85.5
South	5,910	83.8	84.1	5,920	83.9	84.2
West	4,080	78.9	78.6	3,990	77.2	76.9

 Table 5-12.
 Response rates for teacher questionnaires, by selected school characteristics, spring kindergarten: School year 2010–11

		her questions eacher-level			ner questionr tudent-level)	
School	Number of	Respo	nse rates	Number of	Response rates	
characteristic	respondents <sup>1</sup>	Weighted	Unweighted	respondents <sup>1</sup>	Weighted	Unweighted
Locale						
City	5,176	77.9	77.9	5,145	77.5	77.4
Suburb	5,939	82.4	82.0	5,874	81.1	81.2
Town	1,286	84.9	85.7	1,241	82.6	82.7
Rural	3,821	87.8	87.1	3,762	86.6	85.8
Unknown	11	2.2	2.6	11	2.2	2.6
Kindergarten enrollment						
1 to 50 students 51 to 80	4,085	84.8	85.2	4,032	83.7	84.1
students 81 to 110	4,261	83.1	82.8	4,204	81.9	81.7
students 111 students or	3,935	80.7	80.0	3,878	79.4	78.9
more	3,951	81.7	80.2	3,918	80.9	79.5
Unknown	1	0.2	0.2	1	0.2	0.2
Percent minority enrolled						
0 to 15	3,909	86.9	86.2	3,848	85.2	84.8
16 to 45	4,614	82.5	82.9	4,530	81.2	81.4
46 to 85	4,106	82.5	82.0	4,055	81.6	81.0
86 to 100	3,603	77.5	77.1	3,599	77.1	77.0
Unknown	1	0.2	0.2	1	0.2	0.2

 Table 5-12.
 Response rates for teacher questionnaires, by selected school characteristics, spring kindergarten: School year 2010–11—Continued

<sup>1</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>2</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: A respondent is defined as a child for whom a teacher questionnaire was returned and the questionnaire had at least one response. The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-13 presents weighted and unweighted response rates for the teacher questionnaires in the spring kindergarten data collection, by selected student characteristics. The weighted response rate for the teacher-level questionnaire was 80.6 percent. The highest rates were observed for students classified as other race (88.1 percent). The lowest rates were found among Native Hawaiian/Other Pacific Islanders (69.8 percent) and American Indians or Alaska Natives (70.7 percent). For the student-level

teacher questionnaire, the weighted response rate was 79.5 percent. Again, the highest rates were observed among students classified as other race (87.1 percent), while the lowest rates were for Native Hawaiian/Other Pacific Islanders (68.5 percent) and American Indians or Alaska Natives (67.3 percent).

		her question teacher-level		Teacher questionnaire (student-level)			
	Number of	Respo	nse rates	Number of	Response rates		
Student characteristic	respondents	Weighted	Unweighted	respondents	Weighted	Unweighted	
All students	16,233	80.6	80.4	16,033	79.5	79.4	
Sex							
Male	8,290	80.1	79.9	8,192	79.1	79.0	
Female	7,943	81.0	80.9	7,841	79.9	79.8	
Race/ethnicity							
White, non-Hispanic	7,856	81.1	81.4	7,762	80.1	80.5	
Black, non-Hispanic	2,131	81.6	81.6	2,108	80.7	80.7	
Hispanic	3,942	79.8	80.5	3,910	78.9	79.9	
Asian, non-Hispanic	1,318	72.8	71.9	1,281	70.7	69.9	
Native Hawaiian/							
Other Pacific							
Islander, non-							
Hispanic	96	69.8	63.6	97	68.5	64.2	
American Indian or							
Alaska Native,							
non-Hispanic	155	70.7	71.8	149	67.3	69.0	
Other, non-							
Hispanic <sup>1</sup>	735	88.1	87.4	726	87.1	86.3	
Year of birth <sup>2</sup>							
2003	80	79.4	78.0	80	77.5	76.0	
2004	5,060	82.4	82.9	4,990	81.3	81.7	
2005	11,060	79.7	79.3	10,930	78.7	78.4	
2006	30	74.9	76.7	30	74.9	76.7	

Table 5-13.Response rates for teacher questionnaires, by selected student characteristics, spring<br/>kindergarten: School year 2010–11

<sup>1</sup> This category includes children who are more than one race.

<sup>2</sup> Sample sizes have been rounded to the nearest 10. Therefore, detail may not sum to total.

NOTE: A respondent is defined as a child for whom a teacher questionnaire was returned and the questionnaire had at least one response. The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-14 presents weighted and unweighted overall response rates for the child assessment and the parent interview in the spring kindergarten data collection, by selected school characteristics. The rates in this table are the product of the spring school response rate in table 5-2 (62.7 percent, before substitution) and the spring child assessment response rates in table 5-10 (85.2 percent). The overall

response rate for the spring child assessment was 53.4 percent. The highest response rates were found in the Midwest (65.3 percent) and in schools in which the percentage of enrolled students of racial/ethnic minorities was 86 percent or more (61.8 percent). The lowest rates were found in the Northeast (47.7 percent) and the West (49.9 percent). For the parent interview, the overall weighted response rate for the spring data collection was 42.1 percent (the product of the spring school response rate (62.7 percent) and the spring parent response rate (67.1 percent)). The highest response rates were seen in Catholic schools and in the Midwest at 48.6 and 52.2 percent, respectively. Conversely, the lowest rate was in the Northeast at 36.6 percent.

	Chi	ld assessme	nt <sup>1</sup>	Par	ent interviev	$v^2$
	Number of	Overall re	sponse rates	Number of	Overall res	sponse rates
School characteristic	respondents <sup>3</sup>	Weighted	Unweighted	respondents <sup>3</sup>	Weighted	Unweighted
All students	17,207	53.4	52.4	13,611	42.1	41.3
School type						
Public	15,060	55.1	53.9	11,769	42.8	42.0
Private	2,132	53.8	51.4	1,721	43.4	41.5
Catholic	838	57.5	54.5	702	48.6	45.7
Other private	1,294	52.3	50.1	1,019	41.2	39.4
Census region <sup>4</sup>						
Northeast	2,880	47.7	45.4	2,230	36.6	35.1
Midwest	3,600	65.3	63.9	2,910	52.2	51.3
South	6,300	54.6	54.5	4,910	42.3	42.4
West	4,420	49.9	49.6	3,440	38.9	38.5
Locale						
City	5,718	55.0	54.3	4,296	41.2	40.6
Suburb	6,234	52.6	50.3	5,042	42.4	40.6
Town	1,328	53.7	55.9	1,049	41.6	44.0
Rural	3,892	57.9	56.7	3,087	45.8	44.8
Kindergarten enrollment						
1 to 50 students	4,226	54.5	54.8	3,330	42.7	43.0
51 to 80 students	4,456	53.5	51.8	3,578	42.8	41.4
81 to 110 students	4,256	58.4	56.7	3,267	45.0	43.3
111 students or	,	• •		- ,	- • •	2.00
more	4,247	54.6	50.5	3,304	41.9	39.1

Table 5-14.Overall response rates for child assessment and parent interview, by selected school<br/>characteristics, spring kindergarten: School year 2010–11

	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of	Overall re	sponse rates	Number of	Overall response rates	
School characteristic	respondents <sup>3</sup>	Weighted	Unweighted	respondents <sup>3</sup>	Weighted	Unweighted
Percent minority enrolled						
0 to 15	3,946	54.6	52.6	3,377	46.4	44.9
16 to 45	4,786	51.4	50.1	3,964	41.7	41.4
46 to 85	4,351	57.3	55.3	3,256	42.7	41.1
86 to 100	4,101	61.8	58.7	2,881	43.3	41.0

 Table 5-14.
 Overall response rates for child assessment and parent interview, by selected school characteristics, spring kindergarten: School year 2010–11—Continued

<sup>1</sup> Student had scoreable reading and/or mathematics data, or student had height and/or weight measurement.

<sup>2</sup> Parent completed family structure portion of parent interview.

<sup>3</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total.

The unknown categories are not included in this table.

<sup>4</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin.

South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-15 presents weighted and unweighted overall response rates for the general classroom teacher questionnaires in the spring kindergarten data collection, by selected school characteristics. The overall response rates in this table are the product of the spring school response rate in table 5-2 (62.7 percent, before substitution) and the spring teacher interview response rates in table 5-12 (80.6 percent and 79.5 percent). The overall response rate for the teacher-level questionnaire was 50.5 percent. Response rates were highest in the Midwest (65.2 percent) and in rural locales (57.2 percent). Response rates were lowest in the Northeast (44.0 percent) and West (46.2 percent). The overall response rate for the student-level teacher questionnaire was 49.8 percent. Similar to the teacher-level questionnaire, the highest response rates were found in the Midwest (63.5 percent) and rural locales (56.4 percent), while the lowest rates were in the Northeast (43.4 percent) and the West (45.2 percent).

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: The weighted overall response rates were calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The student base weight is the product of the school base weight and the within-school student weight. The counts of students by subgroups do not sum to the total because students with unknown school characteristics are not included in this table.

		er question			her questionr tudent-level	
	Number of		sponse rates	Number of		sponse rates
School characteristic	respondents <sup>1</sup>		Unweighted	respondents <sup>1</sup>		Unweighted
All students	16,233	50.5	49.3	16,033	49.8	48.7
School type						
Public	14,154	51.8	50.4	13,988	51.1	49.9
Private	2,079	52.3	50.1	2,045	51.6	49.3
Catholic Other	796	53.6	51.8	801	53.6	52.1
private	1,283	52.1	49.7	1,244	51.0	48.2
Census region <sup>2</sup>						
Northeast	2,620	44.0	41.1	2,600	43.4	40.9
Midwest	3,630	65.2	64.0	3,530	63.5	62.2
South	5,910	50.9	51.0	5,920	50.9	51.0
West	4,080	46.2	45.7	3,990	45.2	44.7
Locale						
City	5,176	49.5	48.9	5,145	49.3	48.6
Suburb	5,939	50.2	47.7	5,874	49.4	47.3
Town	1,286	51.0	53.9	1,241	49.6	52.0
Rural	3,822	57.2	55.5	3,762	56.4	54.7
Kindergarten enrollment						
1 to 50 students	4,085	52.5	52.7	4,032	51.8	52.1
51 to 80 students	4,261	51.0	49.3	4,204	50.3	48.7
81 to 110 students	3,935	54.1	52.2	3,878	53.2	51.4
111 students or	-			-		
more	3,951	51.2	46.8	3,918	50.7	46.4

Table 5-15.	Overall response rates for teacher questionnaires, by selected school characteristics, spring
	kindergarten: School year 2010-11

	Teacher questionnaire (teacher-level)			Teacher questionnaire (student-level)		
	Number of	Overall re	sponse rates	Number of	Overall res	ponse rates
School characteristic	respondents <sup>1</sup>	Weighted	Unweighted	respondents <sup>1</sup>	Weighted	Unweighted
Percent minority enrolled						
0 to 15	3,909	54.4	52.0	3,848	53.3	51.1
16 to 45	4,614	48.8	48.2	4,530	48.1	47.3
46 to 85	4,106	54.1	51.9	4,055	53.5	51.3
86 to 100	3,603	54.3	51.3	3,599	54.0	51.2

Table 5-15.	Overall response rates for teacher questionnaires, by selected school characteristics, spring
	kindergarten: School year 2010–11—Continued

<sup>1</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. The unknown categories are not included in this table.

<sup>2</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: A respondent is defined as a child for whom a teacher questionnaire was returned and the questionnaire had at least one response. The weighted overall response rates were calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The student base weight is the product of the school base weight and the within-school student weight. The counts of students by subgroups do not sum to the total because students with unknown school characteristics are not included in this table. SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

The next set of tables present response rates that reflect response across the fall and spring kindergarten collections combined. They are referred to as longitudinal response rates. Two sets of rates are presented: those indicating the percentage of cases with a response for a given components in both the fall and the spring, and those indicating the percentage of cases with a response for a given components in either the fall or the spring. The weight used to compute estimates for tables 5-16 through 5-21 showing longitudinal tables is also the student base weight before any adjustments were made to it.

Table 5-16 presents the weighted and unweighted response rates for students who have child assessments in both the fall and spring kindergarten data collections, and students who have child assessments in either the fall or spring data kindergarten data collections, by selected school characteristics. The denominator for these estimates is 20,144 students, which is the total number of students who were eligible for the child assessment in both rounds of data collection, excluding those children who were not assessed due to lack of accommodation. The weighted response rate for students with assessments in both fall and spring is 76.0 percent. Looking at response rates by school characteristics, the rate is highest in other private schools, the Midwest, and in towns, at 84.6, 84.3, and 84.3 percent, respectively. The rate was lowest in the Northeast (67.0 percent). The weighted response rates for students with assessments in fall or spring is 88.5 percent. The response rate was over 90 percent

for schools in the South and in the rural areas, at 91.0 and 90.2 percent, respectively. Rates were lowest in the Northeast (85.1 percent).

		d assessmen		Child assessment in fall or spring <sup>1</sup>			
	both	fall and spri	ing <sup>1</sup>				
	Number of	Respo	nse rates	Number of	Respor	nse rates	
School characteristic	respondents <sup>2</sup>	Weighted	Unweighted	respondents <sup>2</sup>	Weighted	Unweighted	
All students	15,166	76.0	75.3	17,791	88.5	88.3	
School type							
Public	13,136	77.1	76.2	15,243	88.5	88.4	
Private	2,015	83.2	81.9	2,173	88.8	88.3	
Catholic	739	80.5	76.5	854	90.9	88.4	
Other private	1,276	84.6	85.4	1,319	87.8	88.2	
Homeschool/Unknown							
school type	15	3.1	3.4	375	85.6	86.2	
Census region <sup>3</sup>							
Northeast	2,300	67.0	66.7	2,920	85.1	84.6	
Midwest	3,450	84.3	84.1	3,660	89.1	89.2	
South	5,640	81.5	80.7	6,360	91.0	91.0	
West	3,760	73.5	72.7	4,480	86.5	86.7	
Unknown	20	3.1	3.4	380	85.6	86.2	
Locale							
City	4,908	74.9	74.2	5,806	87.9	87.8	
Suburb	5,408	75.1	75.0	6,309	87.5	87.5	
Town	1,231	84.3	82.3	1,341	90.3	89.6	
Rural	3,584	82.8	82.1	3,938	90.2	90.2	
Unknown	35	6.6	7.6	397	85.8	86.5	
Kindergarten enrollment							
1 to 50 students	3,824	79.4	80.1	4,277	89.3	89.6	
51 to 80 students	3,977	78.5	77.6	4,522	88.7	88.3	
81 to 110 students	3,682	76.1	75.4	4,300	88.2	88.0	
111 students or more	3,661	77.5	74.5	4,307	88.1	87.6	
Unknown	22	4.3	4.9	385	85.2	85.7	

Table 5-16.	Response rates for child assessment, by selected school characteristics, fall and/or spring
	kindergarten: School year 2010–11

	Child assessment in both fall and spring <sup>1</sup>			Child assessment in fall or spring <sup>1</sup>		
	Number of	Respo	nse rates	Number of	Respor	ise rates
School characteristic	respondents <sup>2</sup>	Weighted	Unweighted	respondents <sup>2</sup>	Weighted	Unweighted
Percent minority enrolled						
0 to 15	3,668	81.3	81.2	3,980	88.1	88.1
16 to 45	4,324	79.4	78.0	4,858	88.1	87.6
46 to 85	3,674	74.6	73.8	4,408	88.7	88.5
86 to 100	3,477	75.5	74.8	4,160	89.5	89.5
Unknown	23	4.4	5.1	385	85.2	85.7

 Table 5-16.
 Response rates for child assessment, by selected school characteristics, fall and/or spring kindergarten: School year 2010–11—Continued

<sup>1</sup> Student had scoreable reading and/or mathematics data, or student had height and/or weight measurement, in both fall and spring-kindergarten.

<sup>2</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>3</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-17 presents the weighted and unweighted response rates for students who have child assessments in both fall and spring kindergarten data collections and students who have child assessments in either fall or spring kindergarten, by selected student characteristics. The denominator for these estimates is the same as for table 5-16. The weighted response rate for students with assessments in both fall and spring is 76.0 percent. Within subgroups, this rate is highest among students classified as other race (84.1 percent). The lowest subgroup response rates were for Native Hawaiian/Other Pacific Islander (56.4 percent) and American Indian or Alaska Native (63.7 percent) students. The weighted response rate for students with assessments in either fall or spring is 88.5 percent. The response rate pattern is similar to that of the students with assessment in both fall and spring: highest for students classified as other race (95.3 percent), and lowest for American Indian or Alaska Native (77.7 percent) and Native Hawaiian/Other Pacific Islander (83.3 percent) students.

	-	d assessmen		-	d assessmen	t in
	both fall and spring <sup>1</sup>			fall or spring <sup>1</sup>		
	Number of		nse rates	Number of	Respor	ise rates
Student characteristic	respondents <sup>2</sup>	Weighted	Unweighted	respondents <sup>2</sup>	Weighted	Unweighted
All students	15,166	76.0	75.3	17,791	88.5	88.3
Sex						
Male	7,752	75.7	75.0	9,086	88.1	87.9
Female	7,414	76.2	75.6	8,705	88.9	88.7
Race/ethnicity						
White, non-Hispanic	7,379	76.9	76.6	8,385	87.1	87.0
Black, non-Hispanic	2,006	77.3	77.1	2,383	91.3	91.5
Hispanic	3,694	75.0	75.8	4,429	90.2	90.8
Asian, non-Hispanic	1,178	65.8	64.5	1,508	83.3	82.6
Native Hawaiian/Other						
Pacific Islander,						
non-Hispanic	78	56.4	51.3	115	80.6	75.7
American Indian or						
Alaska Native,			<i></i>			
non-Hispanic	140	63.7	64.5	175	77.7	80.6
Other, non-Hispanic <sup>2</sup>	691	84.1	82.7	796	95.3	95.2
Year of birth <sup>3</sup>						
2003	70	70.7	68.8	80	88.4	85.4
2004	4,690	77.5	77.1	5,420	89.1	89.1
2005	10,380	75.3	74.5	12,250	88.2	88.0
2006	30	72.1	74.4	40	84.4	86.0

 Table 5-17.
 Response rates for child assessment, by selected student characteristics, fall and/or spring kindergarten: School year 2010–11

<sup>1</sup> Student had scoreable reading and/or mathematics data, or student had height and/or weight measurement in both fall and spring.

<sup>2</sup> This category includes children who are more than one race.

<sup>3</sup> Sample sizes have been rounded to the nearest 10. Therefore, detail may not sum to total.

NOTE: The weighted response rates were calculated using the student base weight (the product of the school base weight and the within- school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-18 presents weighted and unweighted response rates for students who have a complete parent interview in both the fall and spring kindergarten data collections, and students who have a complete parent interview in either the fall or spring kindergarten data collections, by selected school characteristics. The denominator for these estimates is 20,234 students, which is the total number of students who were eligible for the parent interview in both rounds of data collection. The response rate for students with a complete parent interview in both fall *and* spring was 54.9 percent. This rate was highest for students in Catholic schools (65.0 percent), in the Midwest (62.2 percent), in rural locales (61.3 percent), and in schools where the percent minority student enrollment was 15 percent or lower (66.3 percent) or 16 to 45 percent (60.3 percent). This rate was lowest in the Northeast (48.4 percent), cities

(49.9 percent), and in schools with minority student enrollment of 46 to 85 percent (49.7 percent) or 86 percent or more (44.3 percent). The response rate for students with a complete parent interview in either fall *or* spring was 79.8 percent. This rate was highest among students in Catholic schools (83.8 percent), in the South (83.6 percent), in towns (83.1 percent), and in rural locales (83.0 percent), and in schools with a minority student enrollment of 15 percent or lower (83.0 percent). This response rate was lowest in the Northeast (73.9 percent) and in schools where minority student enrollment was 86 percent or higher (76.0 percent).

		ent interview		Parent interview in		
		fall and spri	<u> </u>		all or spring <sup>2</sup>	
	Number of	A	nse rates	Number of	<u>.</u>	nse rates
School characteristic	respondents <sup>3</sup>	Weighted	Unweighted	respondents <sup>3</sup>	Weighted	Unweighted
All students	10,922	54.9	54.0	16,088	79.8	79.5
School type						
Public	9,273	54.6	53.5	13,812	80.0	79.7
Private	1,541	64.0	62.6	1,986	81.5	80.7
Catholic	592	65.0	61.3	787	83.8	81.5
Other private	949	63.5	63.4	1,199	80.3	80.1
Homeschool/Unknown						
school type	108	25.1	24.8	290	65.1	66.7
Census region <sup>4</sup>						
Northeast	1,660	48.4	48.1	2,560	73.9	73.9
Midwest	2,560	62.2	62.1	3,370	81.6	81.8
South	4,000	57.8	56.9	5,860	83.6	83.4
West	2,590	51.2	49.9	4,010	77.7	77.3
Unknown	110	25.1	24.8	290	65.1	66.7
Locale						
City	3,217	49.9	48.4	5,148	77.6	77.4
Suburb	4,032	56.1	55.7	5,770	79.6	79.7
Town	888	59.0	59.2	1,239	83.1	82.5
Rural	2,664	61.3	60.7	3,621	83.0	82.5
Unknown	121	26.1	26.4	310	65.7	67.5
Kindergarten enrollment						
1 to 50 students	2,749	57.4	57.4	3,875	80.4	80.8
51 to 80 students	2,923	58.3	56.8	4,147	81.0	80.6
81 to 110 students	2,581	54.0	52.5	3,887	79.8	79.0
111 students or more	2,554	53.5	51.8	3,877	79.5	78.7
Unknown	115	25.5	25.6	302	65.4	67.3

Table 5-18.Response rates for parent interview, by selected school characteristics, fall and/or spring<br/>kindergarten: School year 2010–11

		Parent interview in both fall and spring <sup>1</sup>		Parent interview in fall or spring <sup>2</sup>		
School	Number of	Respo	nse rates	Number of	Respor	ise rates
characteristic	respondents <sup>3</sup>	Weighted	Unweighted	respondents <sup>3</sup>	Weighted	Unweighted
Percent minority enrolled						
0 to 15	3,017	66.3	66.5	3,763	83.0	82.9
16 to 45	3,347	60.3	60.1	4,552	81.8	81.8
46 to 85	2,447	49.7	48.9	3,938	78.9	78.7
86 to 100	1,994	44.3	42.7	3,532	76.0	75.6
Unknown	117	25.8	26.1	303	65.6	67.5

Table 5-18.	Response rates for parent interview, by selected school characteristics, fall and/or spring
	kindergarten: School year 2010–11—Continued

<sup>1</sup> Parent completed family structure portion of parent interview in both fall and spring.

<sup>2</sup> Parent completed family structure portion of parent interview in fall or spring.

<sup>3</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>4</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina,

Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming.

NOTE: The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-19 presents weighted and unweighted response rates for students who have a complete parent interview in both the fall and spring kindergarten data collections, and students who have a complete parent interview in either the fall or spring kindergarten data collection, by selected student characteristics. The denominator for the rates in this table is the same as for table 5-18. The response rate for students with a complete parent interview in both fall *and* spring was 54.9 percent. The highest rates were found for White students and students classified as other race, at 61.0 and 67.4 percent, respectively. The lowest response rates were found in several of the racial/ethnic subgroups: Black students (49.2 percent), Hispanic students (46.9 percent), Asian students (41.9 percent), Native Hawaiian/Other Pacific Islanders (36.1 percent), and American Indians or Alaska Natives (36.9 percent). The response rate for students of "other" race/ethnicity (92.9 percent) and lowest among Native Hawaiians/Other Pacific Islanders (63.1 percent) and American Indians or Alaska Natives (61.3 percent).

		ent interview			ent interview	
		fall and spri	ing	f	all or spring <sup>2</sup>	
	Number of	Respo	nse rates	Number of	Respor	nse rates
Student characteristic	respondents	Weighted	Unweighted	respondents	Weighted	Unweighted
All students	10,922	54.9	54.0	16,088	79.8	79.5
Sex						
Male	5,618	54.9	54.1	8,272	79.9	79.6
Female	5,304	54.9	53.9	7,816	79.6	79.4
Race/ethnicity						
White, non- Hispanic	5,922	61.0	61.2	7,788	80.5	80.5
Black, non-Hispanic	1,260	49.2	48.1	2,033	77.7	77.6
Hispanic	2,327	46.9	47.5	3,950	79.7	80.6
Asian, non-Hispanic	734	41.9	40.0	1,315	73.5	71.7
Native Hawaiian/						
Other Pacific						
Islander, non-						
Hispanic	50	36.1	32.9	88	63.1	57.9
American Indian or						
Alaska Native,						
non-Hispanic	72	36.9	33.2	133	61.3	61.3
Other, non-Hispanic <sup>3</sup>	557	67.4	66.2	781	92.9	92.9
Year of birth <sup>4</sup>						
2003	50	50.7	45.0	70	74.7	71.0
2004	3,400	56.2	55.6	4,950	81.0	81.0
2005	7,450	54.3	53.3	11,030	79.3	78.9
2006	20	50.6	52.3	30	71.7	70.5

 Table 5-19.
 Response rates for parent interview, by selected student characteristics, fall and/or spring kindergarten: School year 2010–11

<sup>1</sup> Parent completed family structure portion of parent interview in both fall and spring.

<sup>2</sup> Parent completed family structure portion of parent interview in fall or spring.

<sup>3</sup> This category includes children who are more than one race.

<sup>4</sup> Sample sizes have been rounded to the nearest 10. Therefore, detail may not sum to total.

NOTE: The weighted response rates were calculated using the student base weight (the product of the school base weight and the within- school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-20 presents overall weighted and unweighted response rates for students with child assessments in both fall and spring kindergarten data collections and students with child assessments in either fall or spring kindergarten, by selected school characteristics. The overall response rates in this table are the product of the spring school response rate in table 5-2 (62.7 percent, before substitution) and the fall and/or spring response rates in table 5-16 (fall and spring, 76.0 percent; fall or spring, 88.5 percent). The overall weighted response rate for the child assessment in both fall and spring was 47.7 percent. This rate was highest in the Midwest region (62.7 percent) and lowest in the Northeast (38.1

percent) and West (43.1 percent). The overall weighted response rate for child assessment in either fall or spring was 55.5 percent. As for students in both fall and spring, rates were highest for the Midwest region (66.3 percent) and lowest for the Northeast (48.4 percent).

		d assessmen fall and spri		Child assessment in fall or spring <sup>1</sup>		
	Number of	A	sponse rates	Number of		sponse rates
School characteristic	respondents <sup>2</sup>	Weighted	Unweighted	respondents <sup>2</sup>	Weighted	Unweighted
All students	15,166	47.7	46.2	17,791	55.5	54.1
School type						
Public	13,136	48.7	47.1	15,243	55.8	54.6
Private	2,015	51.4	48.6	2,173	54.9	52.4
Catholic	739	51.8	48.1	854	58.5	55.6
Other private	1,276	51.5	49.4	1,319	53.5	51.1
Census region <sup>3</sup>						
Northeast	2,300	38.1	36.3	2,920	48.4	46.0
Midwest	3,450	62.7	61.1	3,660	66.3	64.8
South	5,640	49.5	48.9	6,360	55.2	55.1
West	3,760	43.1	42.2	4,480	50.7	50.4
Locale						
City	4,908	47.6	46.6	5,806	55.9	55.1
Suburb	5,408	45.7	43.7	6,309	53.3	50.9
Town	1,231	50.7	51.8	1,341	54.3	56.4
Rural	3,584	53.9	52.3	3,938	58.7	57.5
Kindergarten enrollment						
1 to 50 students	3,824	49.1	49.6	4,277	55.3	55.5
51 to 80 students	3,977	48.2	46.2	4,522	54.5	52.6
81 to 110 students	3,682	51.0	49.2	4,300	59.1	57.4
111 students or more	3,661	48.6	43.5	4,307	55.2	51.2

Table 5-20.Overall response rates for child assessment, by selected school characteristics, fall and/or<br/>spring kindergarten: School year 2010–11

	Chil	d assessmen	t in	Child assessment in		
	both	fall and spri	ing <sup>1</sup>	f	all or spring <sup>1</sup>	
	Number of	Overall re	sponse rates	Number of	Overall res	ponse rates
School characteristic	respondents <sup>2</sup>	Weighted	Unweighted	respondents <sup>2</sup>	Weighted	Unweighted
Percent minority enrolled						
0 to 15	3,668	50.9	49.0	3,980	55.2	53.1
16 to 45	4,324	47.0	45.3	4,858	52.2	50.9
46 to 85	3,674	48.9	46.7	4,408	58.2	56.0
86 to 100	3,477	52.9	49.7	4,160	62.7	59.5

Table 5-20. Overall response rates for child assessment, by selected school characteristics, fall and/or spring kindergarten: School year 2010–11—Continued

<sup>1</sup> Student had scoreable reading and/or mathematics data, or student had height and/or weight measurement, in both fall and spring kindergarten. <sup>2</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total.

The unknown categories are not included in this table.

<sup>3</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: The weighted overall response rates were calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The student base weight is the product of the school base weight and the within-school student weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-21 presents overall weighted and unweighted response rates for students with complete parent interviews in both the fall and spring kindergarten data collections and students with complete parent interview in either the fall or spring kindergarten, by selected school characteristics. The overall response rates in this table are the product of the spring school response rate in table 5-2 (62.7 percent, before substitution) and the fall and spring parent response rates in table 5-18 (fall and spring, percent; fall or spring 79.8 percent). The overall weighted response for students with both a complete fall *and* complete spring parent interview was 34.4 percent. This rate was highest for students in Catholic schools (41.9 percent), the Midwest (46.3 percent), and in schools with minority student enrollment of 15 percent or less (41.5 percent). The rates were lowest in the Northeast (27.5 percent) and West (30.0 percent). The rate was highest for students with a complete parent interview in either fall *or* spring was 50.0 percent. The rate was highest for students in the Midwest (60.7 percent), and the lowest rates were in the Northeast and West, at 42.0 and 45.5 percent, respectively.

		ent interview fall and spr			Parent interview in fall or spring <sup>2</sup>		
	Number of		sponse rates	Number of		sponse rates	
School characteristic	respondents <sup>3</sup>		Unweighted	respondents <sup>3</sup>	Weighted	Unweighted	
All students	10,922	34.4	33.1	16,088	50.0	48.7	
School type							
Public	9,273	34.5	33.1	13,812	50.5	49.3	
Private	1,541	39.6	37.1	1,986	50.4	47.9	
Catholic	592	41.9	38.6	787	54.0	51.3	
Other private	949	38.7	36.7	1,199	48.9	46.4	
Census region <sup>4</sup>							
Northeast	1,660	27.5	26.2	2,560	42.0	40.2	
Midwest	2,560	46.3	45.1	3,370	60.7	59.5	
South	4,000	35.1	34.5	5,860	50.7	50.5	
West	2,590	30.0	29.0	4,010	45.5	44.9	
Locale							
City	3,217	31.7	30.4	5,148	49.4	48.6	
Suburb	4,032	34.2	32.4	5,770	48.5	46.4	
Town	888	35.5	37.2	1,239	49.9	51.9	
Rural	2,664	39.9	38.7	3,621	54.0	52.6	
Kindergarten enrollment							
1 to 50 students	2,749	35.5	35.5	3,875	49.8	50.0	
51 to 80 students	2,923	35.8	33.9	4,147	49.7	48.0	
81 to 110 students	2,581	36.2	34.2	3,887	53.5	51.5	
111 students or more	2,554	33.5	30.3	3,877	49.8	46.0	
Percent minority enrolled							
0 to 15	3,017	41.5	40.1	3,763	52.0	50.0	
16 to 45	3,347	35.7	34.9	4,552	48.4	47.5	
46 to 85	2,447	32.6	31.0	3,938	51.8	49.8	
86 to 100	1,994	31.1	28.4	3,532	53.3	50.3	

Table 5-21.	Overall response rates for parent interview, by selected school characteristics, fall and/or
	spring kindergarten: School year 2010–11

<sup>1</sup> Parent completed family structure portion of parent interview in both fall and spring.

<sup>2</sup> Parent completed family structure portion of parent interview in fall or spring.

<sup>3</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. The unknown categories are not included in this table.

<sup>4</sup>States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: The weighted overall response rates were calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The student base weight is the product of the school base weight and the within-school student weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-22 presents unit response rates and overall response rates for students eligible for the special education teacher questionnaire and the before- and after-school care (BASC) questionnaire components of the study. There are two special education teacher questionnaires: questionnaire A is the teacher-level questionnaire and questionnaire B is the child-level questionnaire. There were approximately 910 students who were eligible for the special education teacher questionnaires; they were students with an Individualized Education Program (IEP) or Individualized Family Service Plan (IFSP) on record with the school. The BASC questionnaire (CAQ), the center-based administrator questionnaire (CAQ), the center-based provider questionnaire (CTQ), and the home-based provider questionnaire (HTQ). There were 4,015 students whose parents consented to have the care providers contacted and asked to respond to the BASC questionnaires. Of these 4,015 students, 3,495 of them were eligible for the BASC component<sup>6</sup>: all 3,495 were eligible for WCQ data; 1,741 were eligible for the CAQ and CTQ because their primary care arrangement was center-based; and 1,754 were eligible for the HTQ because their primary care arrangement was home-based. See chapter 2 for a detailed description of the instruments presented in table 5-22.

Table 5-22 presents the response rates for the two special education teacher questionnaires and the four BASC questionnaires. A response rate indicating the percentage of students eligible for the BASC for whom at least one of the questionnaires (for which they were eligible) was completed is also presented. Response rates are not broken down by subgroup for the special education teacher questionnaires because of the relatively small number of students eligible for this component. For the set of students who were eligible for BASC, the response rates are presented by subgroups in tables 5-23 and 5-24.

<sup>&</sup>lt;sup>6</sup> A child care arrangement was eligible for the BASC component if the child was reported to be in the arrangement on a regular basis for a minimum of 5 hours per week, if the provider was at least 18 years old, if the care was provided before or after school, and if permission to contact the provider had been given by the parent. The arrangement in which the child spent the most number of hours that met these criteria was selected for the BASC component. If a child had more than one eligible arrangement and was cared for in each eligible arrangement for an equal number of hours each week, the child care arrangement was selected for the BASC component using a random number.

	Number of	Respo	nse rates	Overall re	sponse rates
School characteristic	respondents	Weighted	Unweighted	Weighted	Unweighted
Special Education Teacher					
Questionnaire A	730	80.5	79.9	50.5	49.0
Questionnaire B	710	79.2	78.4	49.7	48.1
Before and after school care (BASC)					
Child-level questionnaire (WCQ)	2,007	58.0	57.4	36.4	35.2
Center-based administrator					
questionnaire (CAQ)	1,043	60.1	59.9	37.7	36.7
Center-based provider questionnaire					
(CTQ)	1,015	58.9	58.3	36.9	35.7
Home-based provider questionnaire					
(HTQ)	988	57.6	56.3	36.1	34.5
At least one type of BASC data	2,118	61.3	60.6	38.4	37.1

Table 5-22.Response rates for special education teacher questionnaires and before- and after-school<br/>care (BASC) questionnaires, spring kindergarten: School year 2010–11

NOTE: A respondent is defined as an eligible child for whom a questionnaire was returned and the questionnaire had at least one response. The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-23 presents the weighted and unweighted response rates indicating students for whom at least one of the BASC questionnaires for which they were eligible was completed, by selected school characteristics. The denominator for this table is 3,495. The weighted response rate for the BASC component (i.e., completion of at least one of the questionnaires for which a student was eligible) was 61.3 percent. Looking at this rate by subgroup, the rate was highest for students in for Catholic schools (76.7 percent), in towns (70.4 percent), and rural locales (69.4 percent) and lowest in the West (55.7 percent), in cities (55.6 percent) and in schools with more than 85 percent minority enrollment (45.1 percent).

	Before and after school car	Before and after school care (BASC) questionnaire			
		Respons	e rates		
School characteristic	Number of respondents <sup>1</sup>	Weighted	Unweighted		
All students	2,118	61.3	60.6		
School type					
Public	1,681	59.9	58.4		
Private	421	72.8	73.		
Catholic	162	76.7	78.		
Other private	259	71.0	70.		
Homeschool/Unknown					
school	16	28.4	35.0		
Census region <sup>2</sup>					
Northeast	370	67.5	66.		
Midwest	550	68.2	67.		
South	740	59.0	57.		
West	440	55.7	56.		
Unknown	20	28.4	35.		
Locale					
City	578	55.6	54.		
Suburb	757	59.2	58.		
Town	193	70.4	71.		
Rural	572	69.4	69.		
Unknown	18	28.4	36.		
Kindergarten enrollment					
1 to 50 students	649	69.8	68.		
51 to 80 students	578	63.6	62.		
81 to 110 students	427	57.0	55.		
111 students or more	447	57.7	55.		
Unknown	17	28.9	36.		

## Response rates for before- and after-school care (BASC) questionnaires, by selected school characteristics, spring kindergarten: School year 2010–11 Table 5-23.

Table 5-23.	Response rates for before- and after-school care (BASC) questionnaires, by selected
	school characteristics, spring kindergarten: School year 2010-11-Continued

	Before and after school car	Before and after school care (BASC) questionnaire			
		Respons	e rates		
School characteristic	Number of respondents <sup>1</sup>	Weighted	Unweighted		
Percent minority enrolled					
0 to 15	639	71.2	71.6		
16 to 45	736	65.7	64.6		
46 to 85	427	58.5	56.9		
86 to 100	298	45.1	44.9		
Unknown	18	29.9	37.5		

<sup>1</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>2</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin.

South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: A respondent is defined as an eligible student for whom at least one of the BASC questionnaires for which the student was eligible was completed. The weighted response rates were calculated using the student base weight (the product of the school base weight and the withinschool student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-24 presents the weighted and unweighted response rates indicating students for whom at least one of the BASC questionnaires for which they were eligible was completed, by selected student characteristics. The weighted response rate for the BASC component (i.e., completion of at least one of the questionnaires for which a student was eligible) was 61.3 percent. Looking at this rate by subgroup, the rate was highest for White students (68.1 percent) and lowest for students in several of the other racial/ethnic groups (Black students (49.2 percent), Hispanic students (52.3 percent), Native Hawaiian/Other Pacific Islanders (33.1 percent), and American Indians or Alaska Natives (48.4 percent)), as well as for students born in 2003 (43.1 percent). As seen for other components, the lowest response rates generally were seen for subgroups with very small sample sizes.

	Before and after sc	hool care (BASC)	questionnaire
	Number of	Response	rates
Student characteristic	respondents	Weighted	Unweighted
All students	2,118	61.3	60.6
Sex			
Male	1,074	61.6	60.6
Female	1,044	61.0	60.5
Race/ethnicity			
White, non-Hispanic	1,276	68.1	67.8
Black, non-Hispanic	253	49.2	47.5
Hispanic	347	52.3	51.6
Asian, non-Hispanic	108	60.6	59.3
Native Hawaiian/Other Pacific Islander, non- Hispanic	5	33.1	45.5
American Indian or Alaska Native, non- Hispanic	9	48.4	47.4
Other, non-Hispanic <sup>1</sup>	120	62.6	60.9
Year of birth <sup>2</sup>			
2003	#	43.1	36.4
2004	670	61.8	61.8
2005	1,440	61.1	60.1
2006	10	68.9	77.8

Table 5-24.	Response rates for before- and after-school care (BASC) questionnaires, by selected
	student characteristics, spring kindergarten: School year 2010–11

# Rounds to zero.

<sup>1</sup> This category includes children who are more than one race.

<sup>2</sup> Sample sizes have been rounded to the nearest 10. Therefore, detail may not sum to total.

NOTE: A respondent is defined as an eligible student for whom at least one of the BASC questionnaires for which the student was eligible was completed. The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-25 presents overall weighted and unweighted response rates indicating students for whom at least one of the BASC questionnaires for which they were eligible was completed by selected school characteristics. The overall response rates in this table are the product of the spring school response rate in table 5-2 (62.7 percent, before substitution) and BASC response rates in table 5-23 (61.3 percent). The overall BASC component response rate (i.e., completion of at least one of the questionnaires for which a student was eligible) was 38.4 percent. This rate was highest among students in Catholic schools (49.4 percent) and in the Midwest region (50.7 percent), and it was lowest in the West (32.6 percent) and in schools with minority student enrollment of 86 percent or more (31.6 percent).

	Before and after schoo	l care (BASC)	questionnaire
	Number of	Overall resp	oonse rates
School characteristic	Respondents <sup>1</sup>	Weighted	Unweighted
All students	2,118	38.4	37.1
School type			
Public	1,681	37.8	36.1
Private	421	45.0	43.6
Catholic	162	49.4	49.4
Other private	259	43.2	41.0
Census region <sup>2</sup>			
Northeast	375	38.4	36.0
Midwest	550	50.7	48.7
South	740	35.8	35.0
West	440	32.6	32.5
Locale			
City	578	35.4	34.3
Suburb	757	36.1	34.2
Town	193	42.3	44.7
Rural	572	45.2	44.0
Kindergarten enrollment			
1 to 50 students	649	43.2	42.3
51 to 80 students	578	39.1	37.4
81 to 110 students	427	38.2	36.3
111 students or more	447	36.2	32.2
Percent minority enrolled			
0 to 15	639	44.6	43.2
16 to 45	736	38.9	37.5
46 to 85	427	38.4	36.0
86 to 100	298	31.6	29.9

## Table 5-25.Overall response rates for before- and after-school care (BASC) questionnaires, by<br/>selected school characteristics, spring kindergarten: School year 2010–11

<sup>1</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>2</sup> States in each region: The unknown categories are not included in this table.

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: A respondent is defined as an eligible student for whom at least one of the BASC questionnaires for which the student was eligible was completed. The weighted overall response rates were calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The student base weight is the product of the school base weight and the withinschool student weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

The school-level response rates for the school administrator questionnaire were presented in table 5-3. Tables 5-26 and 5-27 present the weighted and unweighted response rates for the student-level school administrator questionnaire. They are rates for students in schools that were eligible for the school administrator questionnaire. The denominator for these tables is 20,197, the same denominator as for the teacher questionnaires. The weighted response rate for the student-level administrator questionnaire was 88.5 percent for all students. In general, the response rates by selected school characteristics are near or above 90 percent. However, the inclusion of the "unknown" category, which includes children in schools without complete school administrator surveys (which is why these characteristics are unknown), depresses the response rate for all children somewhat, to 88.5 percent. The response rate is very low (near zero) for this category. By subgroups, the highest rate was for students in Catholic schools (96.9 percent), students in the Midwest (94.9 percent), students in the rural locales (95 percent), and students in schools with 15 percent or less minority enrollment (95.8 percent). By student characteristics, the rate was highest for White (91.5 percent) and students of other race (91 percent) and lowest for Native Hawaiian/Other Pacific Islanders (80.1 percent), American Indians or Alaska Natives (83.5 percent), and for students born in 2006 (78.7 percent). The rate for those born in 2006 is based on about 30 students.

	Student-level school administrator questionnaire		
School characteristic	Response rates		
	Number of respondents <sup>1</sup>	Weighted	Unweighted
All students	17,810	88.5	88.2
School type			
Public	15,497	90.0	89.4
Private	2,313	95.0	93.9
Catholic	927	96.9	96.0
Other private	1,386	94.0	92.6
Unknown school type	0	0.0	0.0
Census region <sup>2</sup>			
Northeast	3,010	87.3	87.1
Midwest	3,920	94.9	95.0
South	6,280	90.0	89.3
West	4,600	89.6	88.7
Unknown	0	0.0	0.0

Table 5-26.Response rates for student-level school administrator questionnaire, by selected school<br/>characteristics, spring kindergarten: School year 2010–11

	Student-level school administrator questionnaire		
School characteristic	Response rates		
	Number of respondents <sup>1</sup>	Weighted	Unweighted
Locale			
City	5,810	87.9	87.4
Suburb	6,417	89.1	88.6
Town	1,435	93.7	95.6
Rural	4,135	95.0	94.3
Unknown	13	2.6	3.1
Kindergarten enrollment			
1 to 50 students	4,451	92.2	92.9
51 to 80 students	4,669	91.4	90.7
81 to 110 students	4,361	89.4	88.7
111 students or more	4,327	89.9	87.8
Unknown	2	0.4	0.5
Percent minority enrolled			
0 to 15	4,344	95.8	95.7
16 to 45	5,220	93.3	93.8
46 to 85	4,518	91.0	90.3
86 to 100	3,727	80.7	79.7
Unknown	1	0.2	0.2

 Table 5-26.
 Response rates for the student-level school administrator questionnaire, by selected school characteristics, spring kindergarten: School year 2010–11—Continued

<sup>1</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>2</sup> States in each region:

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: A respondent is defined as an eligible student for whom the school was eligible for the school administrator questionnaire, the questionnaire was returned and there was at least one response. The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

	Student-level school administrator questionnaire		
	Number of	Response rates	
Student characteristic	respondents	Weighted	Unweighted
All students	17,810	88.5	88.2
Sex			
Male	9,148	88.5	88.2
Female	8,662	88.6	88.2
Race/ethnicity			
White, non-Hispanic	8,871	91.5	91.9
Black, non-Hispanic	2,179	84.6	83.4
Hispanic	4,144	84.9	84.6
Asian, non-Hispanic	1,563	86.3	85.3
Native Hawaiian/Other Pacific Islander, non-			
Hispanic	116	80.1	76.8
American Indian or Alaska Native, non-			
Hispanic	179	83.5	82.9
Other, non-Hispanic <sup>1</sup>	758	91.0	90.1
Year of birth <sup>2</sup>			
2003	90	88.2	87.0
2004	5,440	88.9	89.0
2005	12,250	88.4	87.9
2006	30	78.7	76.7

Table 5-27.	Response rates for student-level school administrator questionnaire, by selected student
	characteristics, spring kindergarten: School year 2010–11

<sup>1</sup> This category includes children who are more than one race.

<sup>2</sup> Sample sizes have been rounded to the nearest 10. Therefore, detail may not sum to total.

NOTE: A respondent is defined as an eligible student for whom the school was eligible for the school administrator questionnaire, the questionnaire was returned and there was at least one response. The weighted response rates were calculated using the student base weight (the product of the school base weight and the within-school student weight).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

Table 5-28 presents overall weighted and unweighted response rates for the student-level school administrator. The overall response rates in this table are the product of the spring school response rate in table 5-2 (62.7 percent, before substitution) and student-level response rates for the school administrator questionnaires in table 5-26 (88.5 percent). The overall rate for the student-level school administrator questionnaire was 55.5 percent. This rate was highest among students in Catholic schools (62.4 percent) and in the Midwest region (70.6 percent), and it was lowest in the Northeast (49.7 percent).

	Student-level school administrator questionnaire			
	Overall response rates			
School characteristic	Number of respondents <sup>1</sup>	Weighted	Unweighted	
All students	17,810	55.5	54.1	
School type				
Public	15,497	56.8	55.2	
Private	2,313	58.7	55.7	
Catholic	927	62.4	60.4	
Other private	1,386	57.2	53.6	
Census region <sup>2</sup>				
Northeast	3,010	49.7	47.4	
Midwest	3,920	70.6	69.1	
South	6,280	54.6	54.1	
West	4,600	52.5	51.5	
Locale				
City	5,810	55.9	54.9	
Suburb	6,417	54.3	51.6	
Town	1,435	56.3	60.1	
Rural	4,135	61.8	60.1	
Kindergarten enrollment				
1 to 50 students	4,451	57.1	57.5	
51 to 80 students	4,669	56.1	54.1	
81 to 110 students	4,361	59.9	57.8	
111 students or more	4,327	56.4	51.3	
Percent minority enrolled				
0 to 15	4,344	60.0	57.7	
16 to 45	5,220	55.2	54.5	
46 to 85	4,518	59.7	57.2	
86 to 100	3,727	56.6	53.0	

Table 5-28.Overall response rates for student-level school administrator questionnaire, by selected<br/>school characteristics, spring kindergarten: School year 2010–11

<sup>1</sup> To maintain confidentiality, the number of respondents is reported to the nearest 10 for census region and, therefore, may not sum to the total. <sup>2</sup> States in each region: The unknown categories are not included in this table.

Northeast: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Maryland, Mississippi, Louisiana, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the District of Columbia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. NOTE: A respondent is defined as an eligible student for whom the school was eligible for the school administrator questionnaire, the questionnaire was returned and there was at least one response. The weighted overall response rates were calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The student base weight is the product of the school base weight and the within-school student weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010 and spring 2011.

## 5.3 Nonresponse Bias Analysis

A nonresponse bias analysis was conducted to determine if substantial bias was introduced as a result of nonresponse. Three methods were used to examine the potential for nonresponse bias: (1) a comparison of estimates from the ECLS-K:2011 to those produced using frame data; (2) a comparison of estimates from the ECLS-K:2011 to other data sources; and (3) a comparison of estimates produced using weights that include adjustments for nonresponse to estimates produced using weights without nonresponse adjustments. This section includes a summary of the findings from this analysis. More detailed information on the nonresponse bias analysis will be available in the *Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), Kindergarten Year Methodology Report* (Tourangeau et al. forthcoming).

In the first method, estimates from the ECLS-K:2011 were compared with estimates from the 2010-11 Common Core of Data (CCD) and the 2009-10 Private School Survey (PSS) for a limited number of items. These two sources of data were selected for the analysis because the school years to which they pertain are closest to the school year in which the kindergarten data were collected. The ECLS-K:2011 estimates were computed using the fully adjusted weights, which are the weights used to prepare estimates for general analysis purposes. Large differences in the estimates between the ECLS-K:2011 and the school frame may be indicators of nonresponse bias. The difference in the two sets of estimates is very small, suggesting there is not significant nonresponse bias present in the data. For example, the ECLS-K:2011 estimate for male students is 51.2 percent, compared with 51.7 percent in the CCD; 24.7 percent Hispanic in the ECLS-K:2011 compared with 25.2 percent in the CCD.

In the second method, comparisons were made between estimates for selected items from the base-year ECLS-K:2011 parent interviews and the NHES:2007 parent interviews, with the NHES estimates being subset to just the sample of kindergartners. Comparison of estimates provide no indication that significant nonresponse bias is present in the data. For example, 91 percent of ECLS-K:2011 children's parents attended parent-teacher conferences compared with 90 percent of kindergarteners' parents in the NHES; 78 percent of ECLS-K:2011 children's parents attended school/class events compared with 71 percent of kindergarteners' parents in the NHES; and 57 percent of ECLS-K:2011 children's parents volunteered at school compared with 66 percent of kindergarteners' parents in the NHES. Again, in general, the differences in estimates do not suggest there are problems with the quality of the ECLS-K:2011 data.

In the third method, estimates from the spring ECLS-K:2011 data collection weighted by the nonresponse-adjusted weights were compared with estimates weighted by the base weight. The base

weight only takes into account the selection probabilities of the sampling units. The weights with nonresponse adjustments are the standard weights used to analyze ECLS-K:2011 data. Estimates chosen for this analysis were assessment scores and selected items from the parent interview and teacher questionnaires. The differences between the estimates produced using the unadjusted weights and those using the nonresponse-adjusted weights are very small. For example, the average math scale score is 41.73 unadjusted and 41.65 adjusted; the average reading scale score is 49.16 unadjusted and 49.08 adjusted; the percent of children's parents who reported that their children visited a museum in the past month is 34.16 unadjusted and 34.22 adjusted. Based on this analysis, it is unlikely that substantial nonresponse bias is present in the data.

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#### 6. DATA PREPARATION

As described in chapter 2, two types of data collection instruments were used for the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) in the base year: computer-assisted interviews and assessments (CAI) and self-administered paper forms (hard copy). Once data were collected, they were reviewed and prepared for release to analysts. The approaches used to prepare the data differed with the mode of data collection. The direct child assessments and parent interviews were conducted using CAI. Editing specifications were built into the computer programs used by assessors or interviewers to collect these data. The teacher, school administrator, and before-and after-school care provider questionnaires were self-administered. When these hard-copy questionnaires were returned to the data collector's home office, staff recorded the receipt of these forms into a project-specific form tracking system. Data from the hard-copy forms were captured by scanning the completed forms. Before scanning, coders reviewed the questionnaires to ensure that responses were legible and had been written in appropriate response fields for transfer into an electronic format. Coding of open-ended<sup>1</sup> "other, specify" text responses into existing or new categories was conducted after the data were scanned and reviewed for range and logical consistency. The following sections describe the data preparation activities for both modes of data collection in more detail.

#### 6.1 Coding and Editing Specifications for Computer-Assisted Interviews

When designing a CAI, edit specifications can be decided upon and programmed into the instrument in advance of administration. Checks to ensure that responses fell within predetermined acceptable ranges and were logically consistent with one another were programmed into the CAI parent interview instrument. Such checks were not programmed into the child assessment because the assessment did not contain items requiring range checks and there was no need for a child's answers to different questions to be consistent with one another. The following sections describe the coding and editing that were conducted on the CAI parent interview.

<sup>&</sup>lt;sup>1</sup> Open-ended items are those that do not provide a predetermined set of response options from which to choose. Closed-ended items are those with predetermined response categories.

#### 6.1.1 Range Specifications

Within the CAI parent interview instrument, the acceptable range of response values for each closed-ended item was defined by the set of response categories provided for the item. Interviewers could only enter predefined responses (e.g., 1 for "yes" and 2 for "no"), "don't know," or "refused." Respondent answers to open-ended items for which the response was expected to be a number were subjected to both "soft" and "hard" range edits during the interviewing process. A soft range is one that represents the reasonable expected range of response values but does not include all possible response values. For example, if a parent reported that the child received regular care from a relative the year before attending kindergarten, then there was a soft-range edit of 1 to 5 for the number of days per week the child received care from that relative. If the parent provided a response value outside this range (for example, 6 days per week), a range check triggered a message to the interviewer to confirm the response with the respondent. A value outside the soft range could be entered and confirmed as correct by the interviewer as long as it was within the hard range of values. A hard range has finite parameters for the response values that can be entered into the computer, based upon the content of the question. In the example provided above, the hard range was set as 1 to 7; because the relative was reported as providing regular care to the child, care had to be provided at least one day a week, but it could not be provided more than the total number of days in a week. Values outside the hard range were not accepted by the CAI program during data collection. If a respondent insisted that a response outside the hard range was correct, the interviewer coded the item "don't know" (-8) and could enter the response with explanatory information in a comment field.

#### 6.1.2 Consistency Checks (Logical Edits)

Consistency checks, or logical edits, examine the relationship between and among responses to ensure that they do not conflict with one another or that the response to one item does not make the response to another item unlikely. For example, in the household roster, a person could not be recorded as both a mother and male. When a logical error such as this occurred during an interview, a message appeared requesting verification of the last response and a resolution of the discrepancy. In some instances, if the verified response still resulted in a logical error, the interviewer recorded the problem either in a comment field or contacted the project help desk where an electronic problem report was created. It was not possible to program consistency checks for all related questions in the interview, so there may be some inconsistencies in the data because respondents reported the information that way in the interview or because interviewers made an error when editing the data. Consistency checks were not used in the child assessments because answers to the assessment items did not have to be consistent with one another.

### 6.1.3 Coding Text Responses

Additional coding was required for some of the items asked in the CAI parent interview once the data had been collected. These items included "other, specify" text responses and responses to questions asking about parent or guardian occupation. Interviewers entered participants' responses to these items verbatim. Data preparation staff reviewed these verbatim responses and were trained to code them into categories using coding rules developed by the data collection contractor and the National Center for Education Statistics (NCES).

Review of "other, specify" items. Some closed-ended items in the parent interview included an "other, specify" option that interviewers could select if a respondent provided a response that was not one of the specific response options offered. During data collection, when a respondent provided an "other" response in the parent interview, the interviewer entered the text into an "other, specify" overlay box that appeared on the screen. Examples of such items are household members' relationship to the study child, primary language spoken in the home, and travel time/distance to school. The data preparation staff reviewed these text "other, specify" responses and, if appropriate, coded them into one of the existing response categories. For example, for the question about how the child usually gets to school, some interviewers entered responses indicating that someone walked the child to school into the "other, specify" overlay box, rather than coding such responses in the available category of "walks"; such responses were upcoded into the category for walking to school. There were a small number of items in the parent interview for which additional categories were added to accommodate "other, specify" text responses that occurred with sufficient frequency. For example, a new category was added to the question about how the child gets to school to indicate that someone other than the parent drives or takes the child to school. Some text responses did not fit into any preexisting category and were not common enough to be coded into new categories; such responses are left coded as "other" in the data. New categories added as a result of the review of "other, specify" responses are noted as such in the study instruments. There were no "other, specify" items in the child assessments.

**Parent occupation coding.** Occupations were coded using the coding scheme detailed in the *Manual for Coding Industries and Occupations* (NCES 2000-077) (U.S. Department of Education, National Center for Education Statistics 1999), which was created for the Adult Education Survey of the 1999 National Household Education Surveys Program (NHES). This coding scheme includes a set of 22

two-digit occupation codes, which is a condensed version of the set of more detailed codes described in the *Standard Occupational Classification Manual*—1980 (U.S. Department of Commerce, Office of Federal Statistical Policy and Planning 1980). All reported parent occupations were initially coded according to the NHES coding scheme. The more detailed scheme from the 1980 manual was used to code occupation only for cases that required more detail to identify the appropriate code. (See chapter 7 for further description of the occupation codes.)

Occupation coding began by using a computer string match program developed for the NHES and updated periodically for use during the ECLS-K data collections to autocode the reported occupation into one of 22 categories. The autocoding procedure automatically assigned occupation codes by identifying key words and information in each text string response providing information on occupation, matching those key words and information to wording for a particular occupation included in the string match program, and assigning the code associated with that occupation. More than one-third of the reported occupations were autocoded in this manner (7,586 occupations or 38.6 percent). As a quality control measure, a human coder, blind to the computer-assigned codes, reviewed all the string text responses and independently assigned occupation codes using the manuals discussed above. When the autocode and the manual code differed from one another, a coding supervisor adjudicated the record and determined the appropriate code.

Text responses that could not be coded using the autocoding system were coded manually by human coders using a customized computer program designed for coding occupations. The customized coding computer program provided a text string with occupation information to coders, who then determined and assigned the most appropriate occupation code by reviewing occupation text descriptions in the coding manuals. In addition to the occupation text strings, the coders used other information collected from respondents such as main duties at work, highest level of education, and name of the employer to ensure that the occupation code assigned to each case was appropriate. Over half the occupations (61.4 percent) were manually coded.

Every manually coded occupation text response was coded at least twice. Two coders assigned codes independently, without knowledge of each other's codes (i.e., using a double-blind coding process). At the beginning of the coding process, each code was checked a third time by a coding supervisor. Initially, 100 percent of each coder's work was reviewed by the coding supervisor. In reviewing a coder's work, the supervisor assigned a code to an occupation and then determined if the code assigned by the coder matched. Once a coder's error rate had dropped to 1 percent or less, 10 percent of the coder's work was reviewed. (A coder's error rate was determined by instances where the code assigned by the coder was inconsistent with the code the supervisor would have assigned to the same

case.) In addition to reviewing each coder's work separately, the coding supervisor also adjudicated all reported occupations for which the codes assigned independently by each coder differed.

Of all the occupations that were assigned a code, 16.7 percent (3,287) required adjudication, either because the autocode and manually assigned code differed for the autocoded occupations or because the two manually assigned codes differed for the manually coded occupations. Of the 7,586 reported occupations that were autocoded, 164 occupations (2.2 percent) required adjudication because the coder disagreed with the autocoding. Of the 12,064 reported occupations that were manually coded, 3,068 (25.4 percent) required adjudication because the two human coders disagreed. Following the adjudication process, the coding supervisor conducted a review of all occupation codes that were assigned manually. There were an additional 55 manually coded occupations (0.3 percent of all codes) for which the two coders assigned the same code, but the supervisor disagreed with the original manually assigned code and assigned a new occupation code.

## 6.1.4 Household Roster Review

Three general types of checks were run on the household roster information collected during the parent interview to identify missing or inaccurate information and, therefore, to determine whether the data on household composition collected in the household roster required editing.

- First, the relationship of an individual living in the household to the study child was compared to the individual's listed age and sex. Inconsistencies such as a male mother or a biological mother over age 60 were examined further and corrected when the interview contained sufficient information to support a change fixing the inconsistency.
- Second, while it is possible to have more than one mother or more than one father in a household, households with more than one mother or more than one father were reviewed to ensure they were not cases of data entry error. Corrections were made whenever clear errors were identified and a clear resolution existed.
- Third, the relationship of an individual in the household to both the study child and the respondent was examined, as there were cases in which the relationship of an individual to the study child conflicted with his or her status as the spouse/partner of the respondent. For example, in a household containing a child's grandparents but not his or her parents, the grandmother may be designated the "mother" figure, and the grandfather thus becomes the "father" figure for the purposes of some questions in the interview by virtue of his marriage to the grandmother. These cases were examined but left unchanged. Both the original—and correct (grandfather)—relationship data and the new "parent-figure" designation (father) that had been constructed were retained. In other situations discrepancies in the parent figure relationships to the child

indicated an error and the data were edited. For example, in a household containing two mothers, a review of the audio recording from the interview indicated that the relationship of the second mother was documented incorrectly by the interviewer—the second mother was not a mother to the focal child; therefore, the relationship of the second mother was edited (corrected).

Two flags on the data file identify cases that were reviewed or edited for any of the reasons described above. The flags are X1EDIT (fall kindergarten) and X2EDIT (spring kindergarten); the flag is set to 1 if the case was identified for review for any of these household roster checks. There were about 700 cases requiring household roster review in fall kindergarten and in spring kindergarten.

#### 6.1.5 Partially Complete Parent Interviews

Parents did not have to complete an entire interview for the data collected from them to be included on the data file. However, parent interviews did have to be completed through a specified section of the interview for those data to be included. For the fall kindergarten round, the respondent had to answer questions at least through the section on family structure (FSQ). There were approximately 220 partially completed fall parent interviews for which the respondent answered at least some questions through the FSQ section but did not finish the entire interview.<sup>2</sup> All data derived from questions asked after the interview termination point for these partially completed interviews are set to -9 for "not ascertained."

In the spring kindergarten round, the criterion for completion, and thus inclusion of data on the data file, differed depending on whether cases had completed a fall parent interview. Cases for which an interview was completed in the fall were considered complete in the spring if they answered questions through section FSQ. Cases that did not have a complete parent interview in the fall had to answer questions in the spring interview through the section of supplemental questions (section SPQ) to be considered complete. Section SPQ was designed specifically for fall nonrespondents in order to collect information on important topics, such as child care, child health, and home language, that were not otherwise asked as part of the spring interview. Section SPQ appeared prior to the FSQ section in the spring interview for fall nonrespondents, but given the importance of the information collected in that section, data were retained for anyone who finished SPQ, even if FSQ was left incomplete. There were 658 cases for which parents did not continue through the end of the spring interview but for which data were included on the data file; 81 completed SPQ but not FSQ, and 577 completed FSQ or more of the interview (including 381 fall respondents and 196 fall nonrespondents). As is true for the fall interview

 $<sup>^{2}</sup>$  Note that, due to skip patterns applicable to individual cases, parents did not have to answer *every* question up to the end of the FSQ section for the data to be included on the file. The last question in the FSQ section that applied to all cases was FSQ200 (marital status).

data, all data derived from questions asked after the interview termination point for these partially completed interviews are set to -9 for "not ascertained."

# 6.2 Receipt, Coding, and Editing of Hard-Copy Questionnaires

# 6.2.1 Receipt Control

In order to monitor receipt of the more than 50,000 documents that were received during the two kindergarten data collections, a project-specific receipt and document control system was used. This Forms Tracking System (FTS) was initially loaded with information that would enable the study to keep track of all materials received, such as identification numbers for schools, teachers, before- and after-school care providers; information linking students to particular schools, teachers, and before- and after-school care providers; and the specific questionnaires that were expected to be completed from each school, teacher, or before- and after-school care provider. Field staff team leaders collected completed questionnaires from school staff and shipped them to the data collector's home office. Before- and after-school care providers returned forms directly to the home office. All materials containing information collected from respondents were shipped to the home office using FedEx so that the questionnaires could be tracked in transit.

Before materials collected in a school were shipped to the home office, team leaders completed a transmittal form to indicate which questionnaires were included in the shipment. Each questionnaire had an identification number that was unique to the respondent who was supposed to complete it. The team leader listed the identification numbers of the questionnaires being shipped on the transmittal form. Once the questionnaires arrived at the home office, the identification number on each returned questionnaire was matched against the list of identification numbers on the transmittal forms and in the FTS to verify that the appropriate or expected number of forms was returned and received. Discrepancies were documented for follow-up with the team leader to correct the transmittal information or update the field management system (e.g., if a teacher left the school and would no longer be a potential respondent). After the number of received documents was confirmed and verified, the questionnaires had no data because although respondents returned them, they refused to complete them), they underwent visual review. Questionnaires with inappropriate response marks (e.g., a number instead of an X mark) or marginal notes requiring adjudication were set aside for supervisor review. Questionnaires that were ready for processing were assigned to batches and

scanned, and the scanned data were captured in a database. Following this process, the data were edited as described in section 6.2.4.

The following sections describe the scanning, coding, and data editing processes for hardcopy questionnaires.

## 6.2.2 Scanning of Hard-Copy Questionnaires

The hard-copy school administrator, teacher, and before- and after-school care provider questionnaires were scanned using Teleform, a questionnaire design and scanning software system that provides automated data capture. Once the questionnaires were scanned, they passed into the software's verification and data capture module. Any data items that the software could not read with a level of confidence defined in the questionnaire's template<sup>3</sup> were reviewed for verification by a staff member. The verifier reviewed the questionnaire image against the data as recorded by the software and made corrections to the data as necessary prior to committing the record to an instrument-specific database. If the verifier could not determine the intended response, he or she set the data item to an appropriate "not ascertained" value. Staff members also conducted quality checks of randomly selected data records against the hard-copy questionnaires on a flow basis, at a rate of 10 percent of all scanned forms as a minimum to ensure that all data were correctly captured by the Teleform software.

To further ensure accuracy of the data captured from hard-copy questionnaires, on a flow basis, a report of missing items was run and staff verified that the items shown as missing were actually missing on the questionnaires. Open-ended items were closely reviewed to ensure that text was captured correctly and coded appropriately.

Following completion of the Teleform data conversion process, the data were stored in a database for later conversion to Blaise<sup>4</sup> data files for editing. Scanned images of complete questionnaires were stored in Alchemy, an image database and retrieval system.

<sup>&</sup>lt;sup>3</sup> The level of confidence is a feature of the software that reflects the likelihood that a scanned image is what the software perceives it to be (for example, a specific number or letter).

<sup>&</sup>lt;sup>4</sup> Blaise® is the computer-assisted interviewing (CAI) system and survey processing tool used for the different components of the study.

## 6.2.3 Coding for Hard-Copy Questionnaires

The hard-copy questionnaires also required review and upcoding of "other, specify" text responses. The coding staff was trained on the coding procedures and had coding manuals to reference during the coding process.

The "other, specify" text responses were reviewed by the data editing staff and, if appropriate, upcoded into one of the existing response categories. For example, for the Special Education Teacher questionnaire item about credentials, "hearing impaired" was upcoded to the category for disability-specific credentials. Project staff with content expertise were asked to review items flagged by the data editing staff for further consideration when responses included technical terminology not familiar to coders or when coders were unsure whether a particular response (e.g., a type of student service) fit within a particular category. New categories were added for a small number of variables where the numbers of responses were sufficient to justify one or more new categories. For example, during the review of "other, specify" responses for the question related to languages used by adults and students in the classroom on the teacher questionnaire, categories for Asian Indian languages and sign language were added. Some "other, specify" text responses did not fit into any preexisting category and were not common enough to be coded into new categories; such responses are left coded as "other" in the data.

#### 6.2.4 Data Editing

The data editing process consisted of verifying soft and hard ranges, checking skip edits, running consistency edits, and reviewing the results.

**Range specifications.** Hard-copy range specifications set the parameters for the highest and lowest acceptable values for a question. For questions for which values were printed on the forms as response options from which to choose, the offered values were used as the range parameters. For openended questions, the range for acceptable values was determined after consultation with a project content expert and NCES, as well as review of data collected in the ECLS-K. Values scanned from the questionnaires that fell outside the allowed range were identified as probable errors and given to a data editor to review. Data editors reviewed the data violating range specifications by inspecting the questionnaire image in Alchemy or on the hard copy as needed to fix errors. In some cases, values that fell outside the range parameters were retained in the data because the value was checked and found to be the actual value reported by the respondent, and the reported value was possible. Impossible answers, such as an answer indicating 8 days per week, were not retained, even if they were verified as the answers provided by the respondent. In cases where the value was not retained, data for the variable were set to -9 ("not ascertained"). Range edits were rerun after cases were updated, and the results from the new edit check were reviewed. This iterative editing process was repeated until no further range violations were found.

**Skip edits.** Unlike with CAI instruments, the skip patterns in self-administered hard-copy instruments cannot be automatically enforced during the administration of the questionnaire. A check of skip patterns was thus performed in the editing stage of data preparation, with edits being made when necessary. These skip-pattern checks examined the relationship between filter questions and dependent questions. For example, if a school administrator indicated that the school did not provide breakfast (the filter question), there were survey instructions directing the respondent to skip questions about the times breakfast is served and the numbers of children served (dependent questions). The survey instructions were not always followed. The skip edits performed during data preparation enforced the skip patterns in the questionnaire design. Therefore, if the respondent answered a dependent question that should have been skipped given a response to an earlier filter question, the value was set to -1, "inapplicable" for the variable pertaining to that dependent question. If a dependent question that should have been answered had no information captured during scanning, the hard-copy form was retrieved and the responses were reviewed. Data for dependent questions that respondents did not answer were set to -9 for "not ascertained." After updates were made, the edits were run again. This iterative editing process was repeated until no further skip errors were found.

**Consistency checks (logical edits).** Consistency between related variables not involved in a skip pattern was examined by conducting a set of logical edit checks between such variables. For example, in the school administrator questionnaire, a consistency check specified that the number of children eligible for free breakfast could not exceed the total number of children enrolled in the school. Logical edits were run for each instrument after scanning and range and skip edits were complete. When an inconsistency was found, the case was identified for an editor to review the hard copy. The original value was either corrected if the editor determined that an error was made when scanning the data or confirmed and kept if the data were correctly captured as reported on the hard-copy instrument. Thus, inconsistent data may be retained in the data file if the inconsistency exists in the information reported by the respondent. If, during the investigation of a consistency check, the data showed clear evidence that the respondent answered a question incorrectly and the correct answer could be ascertained using information reported by the respondent elsewhere on the same hard-copy instrument, the corrected answer was applied to the data. Once an edit was made, data for the case was again run through the consistency edit checks. This was an iterative process; it was repeated until no further inconsistencies were found. Upon

the conclusion of this iterative process, the only remaining inconsistencies, if any, were those identified as respondent-reported and therefore retained inconsistencies.

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## 7. DATA FILE CONTENT AND COMPOSITE VARIABLES

This chapter describes the contents of the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) kindergarten (base-year) restricted-use data file. The data are provided on CD-ROM and are accessible through electronic codebook (ECB) software that allows data users to view variable frequencies, tag variables for extraction, and create the SAS, SPSS for Windows, or Stata code needed to create an extract file for analysis. The child data file on the ECB is referred to as a "child catalog." Instructions for using the CD-ROM and ECB are provided in chapter 8.

The file provides data at the child level and contains one record for each of the 18,174 children who participated in at least one of the two kindergarten data collections. Each child record contains data from the various respondents associated with the child (the child herself/himself, a parent, one or more teachers, a school administrator and, if applicable, a nonparental care provider), weights and imputation flags, and administrative variables from the Field Management System (FMS),<sup>1</sup> for example "F2SCHZIP" for the zip code of the school. Included in the file are cases with either child assessment data from at least one round of kindergarten data collection (fall 2010 or spring 2011) or parent interview data from at least one round of kindergarten data collection (fall 2010 or spring 2011).<sup>2</sup> The raw data are provided in an ASCII data file (named childK.dat). To develop data files for statistical analyses, analysts should use the ECB software available on the CD-ROM or the file record layout to write syntax files that can be run within a statistical software package to generate customized data files. Users should not access the ASCII data file directly, because any changes made to that file will alter the raw data obtained during data collection.

This chapter focuses largely on the composite variables that have been created from information obtained during data collection. To the extent feasible, the composite variables have been computed in the same way as those created for the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K). This results in consistency between the data files from the two studies and facilitates comparisons between the two cohorts. However, some composites were created differently in ECLS-K:2011 than had been done in the ECLS-K. Documentation about composites for both studies

<sup>&</sup>lt;sup>1</sup> The Field Management System includes information collected about the data collection effort, the study schools, school staff, and children from available administrative records or existing data sources (such as the Common Core of Data) or from conversations between data collection staff and school staff.

 $<sup>^{2}</sup>$  Included in the kindergarten-year data file are 293 children with parent data from either fall or spring but no assessment data from either round. There are 2,086 children with at least some assessment data from either fall 2010 or spring 2011 but no parent data from either round. Children for whom only height and weight were collected are included in the 2,086 figure.

should be consulted before cross-cohort analyses using composites are conducted. The user's manuals for the ECLS-K are available on the NCES website (<u>http://nces.ed.gov/pubsearch/getpubcats.asp?sid=024</u>).

As discussed in Appendix C, the public-use file is derived from the restricted-use file and is identical in format. However, masking techniques such as re-categorization and top- and bottom-coding have been applied to some data to make them suitable for public release. As a result of masking, some variables in the public-use file may not contain the exact same categories and values described in this chapter. Please see Appendix C for information on which variables are modified in the public-use file and see the public-use codebook for the exact categories and values provided in the public data.

The chapter is divided into several sections. Sections 7.1 through 7.4 focus on the naming conventions used in the study and describe identification variables, missing values, and data flags. Section 7.5 provides details about the creation of composite variables. Section 7.6 focuses on the methodological variables. Section 7.7 discusses variables used to identify children who changed schools or teachers between the fall and spring data collections.

## 7.1 Variable Naming Conventions

Variables are named according to the data source (e.g., parent interview, teacher questionnaire) and the data collection round to which they pertain. With the exception of the identification variables described in section 7.2, the first two or three characters of each variable (referred to as the variable prefix) include a letter designating the source and a number indicating in which round of data collection the data in the variable were collected. The number 1 is used for fall 2010 and 2 is used for spring 2011. Composite variables that are derived from data collected in both the fall and spring include both 1 and 2 in their names. These variable naming conventions are used consistently throughout the catalog. The prefixes used for variables in the base-year data file are listed in exhibit 7-1.

Category	Description				
	Kindergarten variables				
Al	Data collected from fall 2010 teacher-level questionnaire				
A2	Data collected from spring 2011 teacher-level questionnaire				
B2	Data collected from spring 2011 supplemental questionnaire for teachers new to the study				
C1	Data/scores from fall 2010 direct child assessment				
C2	Data/scores from spring 2011 direct child assessment				
D2	Data collected from spring 2011 special education teacher-level questionnaire				
E2	Data collected from spring 2011 special education child-level questionnaire				
F1	Data from fall 2010 Field Management System (FMS)				
F2	Data from spring 2011 Field Management System (FMS)				
IF	Imputation flags				
T1	Data collected from fall 2010 teacher child-level questionnaire				
T2	Data collected from spring 2011 teacher child-level questionnaire				
P1	Data collected from fall 2010 parent interview				
P2	Data collected from spring 2011 parent interview				
Y2	Data collected from the before- and after-school care questionnaire for center directors/administrators				
R2	Data collected from the before- and after-school care questionnaire for care providers in home-based care				
V2	Data collected from the before- and after-school care questionnaire for teachers/care providers in center-based care				
Z2	Data collected from the child-level before- and after-school care questionnaire				
S2	Data collected from spring 2011 school administrator questionnaire				
X_	Composite/derived variables not specific to a particular round				
XĪ	Fall 2010 composite/derived variables				
X2	Spring 2011 composite/derived variables				
X12	Composite/derived variables using fall 2010 and spring 2011 data				
W	Analytic weights and stratum/cluster identifiers				

Exhibit 7-1. Prefixes for kindergarten variables: School year 2010–11

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), fall 2010 and spring 2011.

## 7.2 Identification Variables

The base-year restricted-use data file contains a child identification (ID) variable (CHILDID) that uniquely identifies each record. For children who have a twin who also participated in the study, TWIN\_ID is the child identification number of the focal child's twin. The file also contains an ID for the parent (PARENTID). The parent ID number (PARENTID) can be used to link to the child ID number. It is the same number as the child ID. It is the identification number for the parent interview, but does not necessarily correspond to the respondent to the parent interview. This is because the respondent is chosen based on the parent or guardian in this household who knows the most about the child's care,

education, and health. That person may not be the contact person originally provided by the school. Also the respondent could change from fall to spring because that person is not available in the field period or is no longer in the household with the child. The parent ID number is also different from the roster number in the household matrix that corresponds to the order in which household members were listed by the respondent in the parent interview.

Unlike in the ECLS-K, CHILDID is randomly generated, so it cannot be used to group children into classrooms or schools (that is, there is no commonality among IDs for children within the same school or classroom). The base-year restricted-use data file does contain IDs for the child's general classroom teacher, special education teacher (if applicable), school, and before- and after-school care provider (if the child was in before- or after-school care at least 5 hours per week with one provider). Users who wish to conduct hierarchical-level analyses with the school or classroom as additional levels can use these ID variables to group children within schools and classrooms. The IDs available on the restricted-use file are listed in exhibit 7-2.

Order on file	Variable	Label
1	CHILDID	CHILD IDENTIFICATION NUMBER
2	PARENTID	PARENT IDENTIFICATION NUMBER
3	S1_ID	FALL 2010 SCHOOL IDENTIFICATION NUMBER
4	S2_ID	SPRING 2011 SCHOOL IDENTIFICATION NUMBER
5	T1_ID	FALL 2010 TEACHER IDENTIFICATION NUMBER
6	T2_ID	SPRING 2011 TEACHER IDENTIFICATION NUMBR
7	D2T_ID	SPRING 2011 SPECIAL ED TEACHER ID NUMBER
8	CC_ID	CHILD CARE PROVIDER IDENTIFICATION NUM
9	TWIN_ID	CHILDID FOR FOCAL CHILD'S TWIN

Exhibit 7-2. Identification variables included in the ECLS-K:2011 kindergarten restricted-use data file: School year 2010–11

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), fall 2010 and spring 2011.

Children's general classroom teachers are identified in the restricted-use file with the ID variables T1\_ID, the fall 2010 teacher identification number, and T2\_ID, the spring 2011 teacher identification number. For children who had the same teacher for the entire school year, T1\_ID and T2\_ID will be the same. In addition, for children who have an Individualized Education Program (IEP) on record with the school that was identified as part of the process for determining accommodations for the

child assessment, D2T\_ID provides the identification number for their special education teacher or related service provider. For some students, the general classroom teacher was also the student's special education teacher. However, D2T\_ID will not match T2\_ID for these students. CC\_ID is the identification number for the before- and/or after-school care provider of children in such care. The ID variables S1\_ID and S2\_ID indicate the school the child attended at the time of the fall 2010 and spring 2011 data collections, respectively. As with the general classroom teacher ID variables, S1\_ID and S2\_ID will be the same for children who attended the same school for the entire school year.

If a child does not have an IEP on record with the school that was identified as part of the process for determining accommodations for the child assessment, there will be no special education teacher associated with that child, and D2T ID will be missing. Also, in most cases, if a child does have an IEP identified as part of the process for determining accommodations for the child assessment and, therefore, a special education teacher associated with him or her, D2T ID will be filled whether or not the special education teacher responded to the spring 2011 special education teacher questionnaires.<sup>3</sup> There could be missing special education data for the child's teacher-level or child-level questionnaires (for example, if the special education teacher replied to only one of the two questionnaires or did not fully complete the questionnaires). If a special education teacher did not complete a teacher-level questionnaire, completed a child-level questionnaire for one child, and did not complete another childlevel questionnaire for a child to whom the teacher was also linked, both children would have the same D2T ID. However, only the child for whom the teacher completed the child-level questionnaire would have data for those variables. It is left to users to determine how they would like to set "not applicable" versus "not ascertained" codes when data for D2T ID are missing. Users interested in information about whether special education teacher questionnaires were requested, regardless of whether special education questionnaires were received in spring 2011, can use the composite variable X2SPECS, which is based on information from the FMS system rather than the special education questionnaires. The FMS data indicating receipt of special education services were obtained in the fall of 2010 and updated, if necessary, in the spring of 2011. It should be noted that there were rare cases of mismatches between the FMS Individualized Education Program (IEP)/Individualized Family Service Plan (IFSP) variable and special education teacher reports about an IEP.

<sup>&</sup>lt;sup>3</sup> For a small number of cases, there was an IEP/IFSP on record for children in fall 2010, but no D2T\_ID in spring 2011 because the children were unlocatable, moved out of a sampled primary sampling unit (PSU), or were no longer enrolled in school in spring 2011.

Children whose child care arrangements were eligible for the Before- or After-School Care (BASC) Provider component will have identification numbers for selected child care providers. If a child had a child care arrangement that was selected for the BASC component, the parent respondent gave permission for the BASC questionnaire, and the child care arrangement could be identified (e.g., enough information was provided in the parent interview to locate the provider), there will be a child care provider ID (CC\_ID). If the child did not have a selected arrangement, or had a child care arrangement that could not be identified or the parent refused permission, CC\_ID will be blank. If a case has a child care provider CC\_ID, there may still be missing data if the BASC questionnaires were not completed.

## 7.3 Missing Values

Variables on the ECLS-K:2011 data file use a standard scheme for identifying missing data. Missing value codes are used to indicate item nonresponse (when a question is not answered within an otherwise completed interview or questionnaire), legitimate skips (when a question was not asked or skipped because it did not pertain to the respondent), and unit nonresponse (when a respondent did not complete any portion of an interview or questionnaire) (see exhibit 7-3).

Value	Description
-1	Not applicable, including legitimate skips
-7	Refused (a type of item nonresponse)
-8	Don't know (a type of item nonresponse)
-9	Not ascertained (a type of item nonresponse)
(blank)	System missing (unit nonresponse)

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K: 2011), fall 2010 and spring 2011.

The -1 (not applicable) code is used to indicate that a respondent did not answer a question due to skip instructions within the instrument. In the parent interview, "not applicable" is coded for questions that were not asked of the respondent because a previous answer made the question inapplicable to the particular respondent. For example, a question about a child's sibling's age is not asked when the respondent has indicated that the child has no siblings. For the teacher and school administrator selfadministered instruments, "not applicable" is coded for questions that the respondent left blank because the written directions instructed him or her to skip the question due to a certain response on a previous question that made the question inapplicable to the particular respondent. One example of the use of "not applicable" is school administrator questionnaire question 16. Question 15 asks whether the school participates in U.S. Department of Agriculture's (USDA) school breakfast program. If the answer to question 15 is "yes," the respondent is directed to skip to question 17 asking what time breakfast is served. The data for question 16 asking why the school does not participate in USDA's school breakfast program is coded -1 (not applicable) for those who answered "yes" to question 15 and skipped to question 17. If the answer to question 15 is "no," the respondent is supposed to proceed to question 16. If question 15 and 16 were both left blank by the respondent, data for questions 15 and 16 are coded -9 (not ascertained).

There are some exceptions to the standard use of -1 to indicate data are inapplicable for specific cases. For several variables (X1RTHET, X2RTHET, X1SERSTH, X2SERSTH, X1MTHET, X2MTHET, X2STHET, X12SESL), -1 is a valid value and should not be identified as missing data.

The -7 (refused) code indicates that the respondent specifically told the interviewer that he or she would not answer the question. This, along with the -8 (don't know) code and the -9 (not ascertained) code, indicate item nonresponse. The -7 (refused) code is not used in the school, teacher, and care provider data.

The -8 (don't know) code indicates that the respondent specifically told the interviewer that he or she did not know the answer to the question. The -8 (don't know) code is not used in the school, teacher, and care provider data. For questions where "don't know" is one of the options explicitly provided, a "-8" will not be coded for those who choose this option; instead the "don't know" response will be coded as indicated in the value label information for the variable associated with that question.

The -9 (not ascertained) code indicates that the respondent left a question blank that he or she should have answered (or for which it is uncertain whether the item should have been answered or legitimately skipped because the respondent also left a preceding item blank). If a gate question<sup>4</sup> (e.g., in the school administrator questionnaire, question D2 asks, "Are any children given a readiness or placement test before or shortly after entering kindergarten?"), was left blank, follow-up questions to the gate question (e.g., question D3 which asks, "How are these assessments used?") were also coded -9 (not ascertained). For the school, teacher, and care provider self-administered questionnaires, this is the code used for item nonresponse. For data that are not collected using the self-administered questionnaires (e.g., direct assessment scores), a -9 means that a value was not ascertained or could not be calculated due to

<sup>&</sup>lt;sup>4</sup> A gate question is the first question in a series with skips to one or more follow-up questions.

nonresponse. The -9 (not ascertained) code is also used in the parent interview data for rare cases that ended before the interview was finished (-9 is used for all variables in the rest of the interview except for the pointer variables<sup>5</sup> unless it was not known who the parents were or if the fall interview ended before the section about primary language)<sup>6</sup> and for questions that were edited<sup>7</sup> or inadvertently skipped in CAPI programming. After editing, for complete interviews, the data for all questions that should have been asked but were not are coded as -9 (not ascertained), while the data for other skipped questions are coded as -1 (not applicable).

Missing values (-1, -7, -8, or -9) in open-ended questions are coded the same for all coding categories used for the question. For example, in the parent interview, if the question about languages spoken in the home (PLQ040) has the answer of -8 (don't know), then all other languages in the same question (e.g., Arabic, French, Korean), in addition to any categories added for coding responses that were not in the CAPI questionnaire (e.g., sign language), are also coded as -8 (don't know).

The "system missing" code appears as a blank when viewing codebook frequencies and in the ASCII data file. System missing codes (blanks) in the base-year data file indicate that data for an entire instrument or assessment are missing due to unit nonresponse. For example, when a child's parent does not participate in the parent interview, all of the data associated with questions from the parent interview are coded system missing (blank) for that child. These blanks may be translated to another value when the data are extracted into specific processing packages. For instance, SAS will translate these blanks into periods (".") for numeric variables.

Codes used to identify missing values (-1, -7, -8, -9, or system missing) are not all identified as missing values by default in the data file. Users will need to define these as missing values in the software they are using to analyze the data. Depending on the research question being addressed, in some instances users may want to assign a valid value to cases with missing values. For example, a teacher who reported that he or she did not have any English language learners in his or her classroom in the fall

<sup>&</sup>lt;sup>5</sup> Pointer variables indicate the household number of a person in the household who was the subject of questions about one or more parent figures. <sup>6</sup> Pointer variables are only set to -9 (not ascertained) for two conditions. First, if it is not known who the parents were in the household (for example, there are 83 cases in spring 2011 that did not have fall 2010 parent interviews and lack rosters of household members), the pointer variables are set to -9 (not ascertained). Second, if the respondent ended the fall interview prior to section PLQ (primary language(s) spoken), it is not known whether the PLQ pointers are applicable to a case, so they are set to -9 (not ascertained) along with the remaining skipped response items. All other partially complete cases have their pointers set to the parent roster numbers.

<sup>&</sup>lt;sup>7</sup> Edits to household composition data that result in the addition or deletion of a parent or parent figure in the child's household may result in -9 (not ascertained) codes for variables in multiple sections of the parent interview that have questions that are asked depending on the presence of specific parents or parent figures. For this editing, -9 (not ascertained) codes are used for questions that are asked about parent/parent figures and those that are based on skips from those questions. These sections are: fall 2010 FSQ (family structure), PLQ (primary language), MHQ (marital history), HRQ (historical roster), NRQ (nonresident parent), CFQ (critical family processes), PEQ (education), EMQ (employment); spring 2011 FSQ (family structure), CFQ (critical family processes), NRQ (nonresident parent), DWQ (discipline and warmth), and PPQ (parent's psychological well-being and health).

teacher-level questionnaire (Q A23) skipped the next question (Q A24) asking how many English language learners were in his or her classroom. An analyst interested in knowing the average number of English language learners in the classrooms of children in the ECLS-K:2011 may want to recode a value of -1 (not applicable) on the variable associated with Q A24 to a value of 0 (thereby indicating no English language learners in the classroom) in those instances where a teacher indicated in Q A23 that there were no English language learners in the classroom. It is advised that users cross-tabulate all gate questions and follow-up questions before proceeding with any recodes or use of the data.

Missing values for composite variables were coded using the same general coding rules as those used for other variables. If a particular composite is inapplicable for a certain case, for example as the variable X2IDP2 (the household roster number of the second parent) would be for a child living in a household with no second parent, the variable is given a value of "-1" (not applicable) for that case. In instances where a variable is applicable but complete information required to construct the composite is not available, the composite is given a value of -9 (not ascertained). The -7 (refused) and -8 (don't know) codes are not used for the composites except in the calculations of the height and weight composites.

## 7.4 Data Flags

# 7.4.1 Child Assessment Flags (X1RDGFLG, X1MTHFLG, X2RDGFLG, X2MTHFLG, X1FLSCRN, X2FLSCRN)

There are four flags that indicate the presence or absence of child assessment data. X1RDGFLG and X2RDGFLG indicate the presence or absence of scoreable English or Spanish reading assessment data in fall 2010 and spring 2011, respectively; X1MTHFLG and X2MTHFLG indicate the presence or absence of a scoreable English or Spanish mathematics assessment in fall 2011 and spring 2011, respectively. If a child answered fewer than 10 questions in the overall assessment, the assessment was not considered scoreable. Only items actually attempted by the child were counted toward the scoreability threshold. A flag value of "1" indicates that the child responded to 10 or more questions in the overall assessment, and thus has the associated scores. A flag value of "0" indicates the child had fewer than 10 responses and does not have a score. In addition, there are two composites (X1FLSCRN and X2FLSCRN) that apply to students who did not pass the English language screener and were identified by schools as speaking a non-English language at home. These indicate whether the students were Spanish-speakers routed through the Spanish assessment battery or whether they spoke a language

other than English or Spanish and, therefore, did not receive the full cognitive battery or executive function assessments in fall 2010 and spring 2011, respectively. This composite variable is coded 0 for children who were English-speakers who were routed through the English assessment battery. These include those not identified by schools as coming from a home where a language other than English was spoken and for children who were identified by schools as speaking a non-English language at home, but who passed the English language screener.

## 7.4.2 Parent Data Flags (X1PARDAT, X2PARDAT, X2SPQDAT, X1EDIT, X2EDIT)

There are two flags that describe the presence of parent interview data. X1PARDAT is coded as 1 (true) if there was a fully completed or partially completed interview in fall 2010. A partially completed parent interview in fall 2010 was one that ended before the interview was fully completed, but had answers to questions through section FSQ (family structure). X2PARDAT is coded as 1 (true) if there was a fully completed or partially completed interview in spring 2011. A partially completed interview in spring 2011 was one that ended before the interview was fully completed, but had answers to questions through either section SPQ (supplementary questions) for fall 2010 parent interview nonrespondents or section FSQ (family structure) for fall 2010 parent interview respondents. For both fully completed and partially completed parent interviews in spring 2011, there is also a parent interview flag, X2SPQDAT, which is coded as 1 (true) if a case has information for section SPQ for fall nonrespondents. In addition, there are flags (X1EDIT, X2EDIT) that are coded as 1 (true) if a parent interview household matrix was edited (e.g., if an age of a household member was reported incorrectly and had to be updated, or a person who was added to the household in error needed to be deleted from the household). These flags are noted to make users aware that data cleaning was conducted for a case. Users wishing to exclude edited data can use these flags.

# 7.4.3 Teacher Flags (X1TQTDAT, X2TQTDAT, X1TQCDAT, X2TQCDAT, X2TQSDAT, X2SETQA, X2SETQC)

In kindergarten, children were expected to have a single general classroom teacher for all subjects. Thus, each child was linked to only one classroom teacher at each round. However, a teacher was linked to all of the study children he or she taught. Thus, children in the same classroom in a given data collection round all have the same classroom teacher ID.

Two types of data were collected from teachers using two different questionnaires. The first type, teacher and classroom data, were collected in the teacher-level questionnaire and include information about the teacher's background and topics such as instructional level and time spent teaching different subjects, classroom characteristics, instructional materials used in the classroom, homework assignments, and criteria for evaluation. One teacher-level questionnaire was completed by each teacher linked to at least one ECLS-K:2011 child, and the data from that questionnaire have been linked to every ECLS-K:2011 child in his or her class. The second type of data, which pertain to an individual study child, were collected from the teacher in the child-level questionnaire. Teachers were asked to complete one child-level questionnaire for each sampled child in his or her class. As discussed in section 7.2, general classroom teachers are identified with the ID variables T1\_ID and T2\_ID. These ID variables indicate the teacher ID for the child at rounds 1 and 2, respectively. To determine whether data were obtained from a teacher, flag variables must be used.

The data file contains flag variables corresponding to each of the teacher questionnaires (teacher-level and child-level) given to the specific teacher in the fall and spring data collections (X1TQTDAT and X2TQTDAT for the teacher-level questionnaire; X1TQCDAT<sup>8</sup> and X2TQCDAT for the child-level questionnaire).

Teachers who were not part of the fall data collection but who participated in the spring data collection also received a supplementary questionnaire (indicated by the flag X2TQSDAT). The supplementary questionnaire obtained teacher background data (sex, year born, race/ethnicity); highest education level of the teacher and the teacher's parents; number of years taught overall, and by grade level; whether the teacher has taken the exam for National Board for Professional Teaching Standards certification; field of study for undergraduate and graduate degree, if applicable; college courses taken; courses taken that addressed Response to Intervention or Early Intervening Services; state teacher certification; and whether the teacher qualifies as a "Highly Qualified Teacher" according to state requirements.

Two flags indicate the presence of data from each of the two special education teacher questionnaires (X2SETQA for the teacher-level questionnaire; X2SETQC for the child-level questionnaire). Cases without special education data or without a special education teacher have values of 0 (false) on these flags.

<sup>&</sup>lt;sup>8</sup> Case 10012665 has a correct value for X1TQCDAT (X1TQCDAT=0) because all the teacher questionnaire data were -9 (not ascertained), but it has a valid weight associated with analysis of teacher data from the child-level teacher questionnaire because this issue was discovered late in data processing after weighting had already been completed.

## 7.4.4 School Administrator Data Flag (X2INSAQ)

There is a flag for the school administrator questionnaire that is 1 (true) if there are data from the school administrator questionnaire and 0 (false) if there are no data.

#### 7.4.5 Before- and After-School Care Flag (X1BASC)

The variable X1BASC indicates the type of arrangement that was selected for the beforeand after-school care (BASC) component. The values of this variable are 1 (child care with a relative), 2 (child care with a nonrelative), and 3 (center-based child care). This variable is described in more detail below in section 7.5.2.1.

## 7.5 Composite Variables

To facilitate analysis of the survey data, composite variables were derived and included on the data file. This section identifies the source variables and provides other details for the composite/derived variables. Most composite variables were created using two or more variables that are also available on the data file, each of which is named in the text that explains the composite variable. Other composites, for example, X\_CHSEX, were created using data from the Field Management System (FMS) and the sampling frame, which are not available on the data file.

## 7.5.1 Child Composite Variables

There are many child-level composite variables on the child catalog. Some of these variables are described in further detail here. The child-level composites for the direct and indirect child assessment are described in chapter 3.

## 7.5.1.1 Child's Household Roster Number (X1CHLDID, X2CHLDID)

There are two variables that provide the parent interview household roster number that was assigned to the child. The child is always the second person in the household roster (as can be seen in the roster person number<sup>9</sup> variable P1PER\_2 (person type for the second person in the household), which always has a value of 2 (focal child)); thus X1CHLDID (household roster number of the focal child) is equal to 2. X2CHLDID (household roster number of the focal child) is also equal to 2 (again, as can be seen in the roster person number variable P2PER\_2 (person type for the second person in the household), which always has a value of 2 (focal child)).

#### 7.5.1.2 Household Has Sampled Twins (X12TWIN)

The variable X12TWIN was created to identify twins who were both sampled for the study. Twins in the sample were identified by matching children who had the same date of birth, same last name, same race and ethnicity (if available),<sup>10</sup> and were in the same school in fall 2010 or spring 2011. If there was a parent interview for a child, the parent's answer to a question about whether the child was a twin, triplet, or other child born as part of a multiple birth (parent interview items CHQ035 in fall 2010 or SPQ106 in spring 2011 for fall nonrespondents) was also used to verify twin status. It should be noted that for the purposes of this variable, both children in a twin pair had to be sampled to have a value of 1 (twin in household) for X12TWIN.<sup>11</sup>

## 7.5.1.3 Child's Age at Assessment (X1KAGE, X2KAGE)

The child's age at assessment was calculated first by determining the number of days between the date the child completed the ECLS-K:2011 direct child assessment and the child's date of

<sup>&</sup>lt;sup>9</sup> Person number refers to the number each household member has on the roster list. Household members are listed in the order they are reported by the respondent, thought the respondent is always person 1 and the focal child is always person 2.

<sup>&</sup>lt;sup>10</sup> Chapter 2 includes information about how parent interviews were conducted for households with twins. There is one twin pair (10013189, 10013415) that does not match on X12RACETH because of nonresponse in the parent interview of one of the twins. The two children have the same mother, and she is the respondent to both parent interviews. The two children are the same age (one child is listed as younger in his brother's interview, but in the child's interview his age is corrected to match the age of his brother), they are full siblings, and both are reported by their mother to be twins. In case 10013189, the child's mother reported the child's race and ethnicity, and X12RACETH is coded according to that report. In case 10013415, the answer for the child's race in the parent interview was recorded as "don't know." The FMS was used to determine race and ethnicity for this child, and X12RACETH is coded according to that information.

<sup>&</sup>lt;sup>11</sup> This variable is defined differently in the ECLS-K:2011 than in the ECLS-K. In the ECLS-K, twins were identified in the household roster or the FMS.

birth (X\_DOBDD (day of birth),<sup>12</sup> X\_DOBMM (month of birth), X\_DOBYY (year of birth)). The total number of days was then divided by 30 to calculate the child's age at assessment in months. The child assessment date was examined to ensure it was within the field period. If the assessment date fell outside the field period, the modal assessment date for the child's school was used to set the composite and was retained for the data file. One case from the spring kindergarten round remains with a July assessment date; the sampled child was the only sampled child in the school.

# 7.5.1.4 Child's Sex (X\_CHSEX)

Information about child's sex was collected from schools at the time of sampling and stored in the FMS, collected from parents in the fall parent interview, and confirmed by parents in the spring parent interview. The composite variable indicating the child's sex was derived using data from these three sources (P1CHSEX, P2CHSEX, or the FMS) with an order of preference for which source should be used. The child's first name was also used to examine discrepancies. Specifically, these sources of data were prioritized by using information from the spring 2011 parent interview if it was available, then from the fall 2010 parent interview if it was available, and then the FMS. This hierarchy was used to resolve almost all discrepancies in reports across data sources. If there was a parent interview in both fall 2010 and spring 2011 and both interviews reported that the child was male or both interviews reported that the child was female, the parent-reported value was considered a confirmation of the FMS data or a correction to the FMS data (if the parent and FMS data differed). However, if the FMS value for the child's sex and the parent interview value differed and there was only one parent interview, or there were two parent interviews, but the reported sex of the child was not consistent across interviews, children's first names were examined to assess whether the FMS value appeared to be more accurate than the parent report. The FMS value was used for three cases because the child had a first name that was clearly not associated with the child's sex.

#### 7.5.1.5 Child's Date of Birth (X\_DOBYY and X\_DOBMM)

The child's date of birth composite variable was derived from the parent interview (P1CHDOBM, P1CHDOBY, P2CHDOBM, and P2CHDOBY) and the FMS date of birth variable. Specifically, the three sources of data were prioritized by using information from the spring 2011 parent

<sup>&</sup>lt;sup>12</sup> X\_DOBDD indicates the child's exact day of birth. It is not included in the data file for issues related to confidentiality.

interview if it was available, then from the fall 2010 parent interview if it was available, and then the FMS.

# 7.5.1.6 Race/Ethnicity (X12AMINAN, X12ASIAN, X12HAWPI, X12BLACK, X12WHITE, X12HISP, X12MULTR, X12RACETHP, and X12RACETH)

There are three types of composite variables indicating child's race/ethnicity in the ECLS-K:2011 file: (1) dichotomous variables for each race/ethnicity category (X12AMINAN, X12ASIAN, X12HAWPI, X12BLACK, X12WHITE, X12HISP, X12MULTR) derived from data collected in the parent interview; (2) a single race/ethnicity composite derived from data collected in the parent interview (X12RACETHP); and (3) a race/ethnicity composite that draws from either the parent-reported data about the child's race or the FMS, with FMS data used only if parent responses about the child's biological parents were missing (X12RACETH). Parent interview responses about the races of the child's biological parents were not used in the creation of child race composite variables.

Parents were asked to indicate to which of five race categories (White, Black or African American, Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaska Native) their child belonged, and they were allowed to indicate more than one. From these responses, a series of five dichotomous race variables were created that indicate separately whether the child belonged to each of the five specified race groups. In addition, one additional dichotomous variable was created to identify those who had indicated that their child belonged to more than one race category.<sup>13</sup>

Data were collected about the child's ethnicity as well. Specifically, parents were asked whether or not their child was Hispanic. Using the six race dichotomous variables and the Hispanic ethnicity variable, the race/ethnicity composite variables for the child (X12RACETHP, X12RACETH) were created. The categories for these variables are White, not Hispanic; Black or African American, not Hispanic; Hispanic, race specified; Hispanic, no race specified; Asian, not Hispanic; Native Hawaiian or other Pacific Islander, not Hispanic; American Indian or Alaska Native, not Hispanic; and more than one race specified, not Hispanic. A child is classified as Hispanic if a parent indicated the child's ethnicity was Hispanic regardless of whether a race was identified and what that race was. If the report about whether the child was Hispanic was -7 (refused) or -8 (don't know), X12RACETHP and X12RACETH are coded -9 (not ascertained). The difference between X12RACETHP and X12RACETH is that FMS

<sup>&</sup>lt;sup>13</sup> Unlike the ECLS-K, in the ECLS-K:2011 there was not a field to enter "other" race in the race question.

data were used to identify race/ethnicity for the variable X12RACETH when parent interview data were missing, while only parent report data were used for the variable X12RACETHP. Thus, there are more missing data for X12RACETHP than for X12RACETH.

The categories for X12RACETHP and X12RACETH are mutually exclusive, meaning that a child is coded as just one race/ethnicity. Users interested in the specific races of children who are identified as multiracial, or who are interested in identifying the race(s) of children who are identified as Hispanic, should use the dichotomous race variables discussed above.

# 7.5.1.7 Child's Height (X1HEIGHT, X2HEIGHT)

To obtain accurate measurements, each child's height was measured twice in each data collection round. The height measurements were entered into the computer program used for the assessment, with a lower limit of 35 inches and an upper limit of 60 inches. Nine children had one or both height measures recorded as 35 inches in fall 2010, as did 7 children in spring 2011. One child was measured at 60 inches in the fall 2010 as were 3 in the spring 2011. No interviewer comments indicate lower or higher true values outside these range limits.

For the height composites, if the two height measurements obtained within a round (i.e., C1HGT1 and C1HGT2 for fall 2010 and C2HGT1 and C2HGT2 for spring 2011) were less than 2 inches apart, the average of the two height values was computed and used as the composite value. If the two measurements were 2 inches or more apart, for X1HEIGHT (the child's height in fall 2010), the measurement that was closest to 45 inches for boys or 44 inches for girls was used as the composite value. These are the 50th percentile heights for children who were 5 and a half years old (68.5 months: the average age at assessment in fall 2010 using the composite X1KAGE). If the two spring measurements were 2 inches or more apart, the measurement closest to 46 inches was used for both boys and girls for X2HEIGHT. This is the 50th percentile height for children who were 6 years old (74.5 months: the average age at assessment in spring 2011 using the composite X2KAGE). The height averages come from the 2000 Centers for Disease Control and Prevention (CDC) Growth Charts (www.cdc.gov/growthcharts/html\_charts/statage.htm).<sup>14</sup> The two height measurements were 2 or more inches apart in 68 cases for X1HEIGHT and 103 cases for X2HEIGHT.

<sup>&</sup>lt;sup>14</sup> For calculating the median height, the composites X1KAGE and X2KAGE were used to determine children's average age at assessment. The average age at assessment in fall 2010 was 68.42 months old using the composite X1KAGE. The closest value on the CDC Growth Chart was 68.5. The average age at assessment in spring 2011 was 74.30 months old using the composite X2KAGE. The closest value on the CDC Growth Chart was 74.5.

If one value for height was missing, the other value was used for the composite. If both the first and second measurements of height were coded as -8 (don't know), then the height composite was coded as -8 (don't know). If both the first and second measurements of height were coded as -7 (refused), then the height composite was coded as -7 (refused). If both the first and second measurements of height were coded as -9 (not ascertained) because height data were missing from a break off in the child assessment or had different missing values (e.g., one was don't know and the other was not ascertained), then the height composite was coded as -9 (not ascertained).

In 512 cases, the child's height in the spring kindergarten round (X2HEIGHT) was shorter than in the fall kindergarten round (X1HEIGHT). A difference of 1 inch or less could be a function of things like slouching versus standing upright or differences in shoes, hairstyle, thickness of socks, or a combination of these factors. However, 260 children were recorded as being more than 1 inch shorter in the spring than in the fall, and 127 were recorded as being more than 2 inches shorter. These discrepancies may result from measurement error or recording error. Analysts should use their own judgment in how to classify these cases in their analysis.

#### 7.5.1.8 Child's Weight (X1WEIGHT, X2WEIGHT)

To obtain accurate measurements, each child's weight was measured twice in each data collection round. For the weight composites, if the two weight measurements obtained within a round (i.e., C1WGT1 and C1WGT2 for fall 2010 and C2WGT1 and C2WGT2 for spring 2011) were less than 5 pounds apart, the average of the two weight values was computed and used as the composite value. If the two measurements were 5 or more pounds apart, for X1WEIGHT, the measurement that was closest to 44 pounds for boys or 43 pounds for girls was used as the composite value. These are the median weights for children who were 5 and a half years old (68.5 months: the average age at assessment in fall 2010 using the composite X1KAGE). For X2WEIGHT, the measurement that was closest to 47 pounds for boys or 46 pounds for girls, the median weight for children who were 6 years old (74.5 months: the average age at assessment in spring 2011 using the composite X2KAGE) was used as the composite value. The weight averages come from the 2000 Centers for Disease Control and Prevention (CDC) Growth Charts

(www.cdc.gov/growthcharts/html\_charts/wtage.htm).<sup>15</sup> The two weight measurements were 5 or more pounds apart in 44 cases for X1WEIGHT and 65 cases for X2WEIGHT.

If one value for weight was missing, the other value was used for the composite. If both the first and second measurements of weight were coded as -8 (don't know), the weight composite was coded as -8 (don't know). If both the first and second measurement of weight in the child assessment were coded as -7 (refused), then the weight composite was coded as -7 (refused). If both the first and second measurement of weight in the child assessment were coded as -9 because weight data were missing from a breakoff in the child assessment or had different missing values (e.g., one was "don't know" and the other was "not ascertained"), then the weight composite was coded as -9 (not ascertained).

#### 7.5.1.9 Child's Body Mass Index (X1BMI, X2BMI)

Composite body mass index (BMI) was calculated by multiplying the composite weight in pounds by 703.0696261393 and dividing by the square of the child's composite height in inches (Keys et al. 1972; Mei et al. 2002). Unrounded values of height and weight were used in the calculation of BMI. If either the height or weight composite was coded as -9 (not ascertained), -7 (refused), or -8 (don't know), the BMI composite was coded as not ascertained (-9).

# 7.5.1.10 Child's Disability Status (X2DISABL)

A composite variable was created to indicate whether a child had a disability diagnosed by a professional. Questions in the spring 2011 parent interview asked about the child's ability to be independent and take care of himself or herself, ability to pay attention and learn, overall activity level, overall behavior and ability to relate to adults and children, emotional or psychological difficulties, ability to communicate, difficulty in hearing and understanding speech, and eyesight. If parents indicated that their child had any issues or difficulties in response to these questions, follow-up questions asked whether

<sup>&</sup>lt;sup>15</sup> For calculating the median weight, the composites X1KAGE and X1KAGE were used to determine children's average ages at assessment. The average age at assessment in fall 2010 was 68.42 years old using the composite X1KAGE. The closest value on the CDC Growth Chart was 68.5. The average age at assessment in spring 2011 was 74.30 months old using the composite X2KAGE. The closest value on the CDC Growth Chart was 74.5.

the child had been evaluated by a professional for that particular issue and whether a diagnosis of a problem was obtained by a professional (CHQ120, CHQ125, CHQ215, CHQ245, CHQ246, CHQ300, CHQ301). Questions were also asked about current and past receipt of therapy services or participation in a program for children with disabilities (CHQ.340, CHQ.341).<sup>16</sup>

The composite variable X2DISABL was coded 1 (yes) if the parent answered "yes" to at least one of the questions about diagnosis (indicating a diagnosis of a problem was obtained) or therapy services (indicating the child received services) (CHQ120, CHQ215, CHQ245, CHQ300, CHQ340, CHQ341) and the questions about the specific diagnoses (CHQ125, CHQ246, CHQ301) were not coded - 7 (refused,) -8 (don't know), or -9 (not ascertained), or in the case of the vision diagnosis (CHQ301), was not coded as only nearsightedness (myopia); farsightedness (hyperopia); color blindness or deficiency; or astigmatism; or in the case of a hearing diagnosis (CHQ246), was not coded as only external ear canal ear wax.

A child could be coded as having a disability according to the criteria above, even if data for some of the questions about diagnoses or therapy services (CHQ120, CHQ215, CHQ245, CHQ300, CHQ340, CHQ341) were missing. A child is coded as not having a disability if there are data for at least one of the questions about diagnoses or therapy services (CHQ120, CHQ215, CHQ245, CHQ300, CHQ340, CHQ341), and the response was either 2 (no) or the item was -1 (inapplicable) (because the child did not have issues that indicated a question should be asked), even if data for some of these questions were missing. In addition to having all "no" answers or "inapplicable" codes for the diagnoses or therapy services questions, if the child had a diagnosis, but the specific diagnosis was not reported (was refused, don't know, or not ascertained), X2DISABL was also coded 2 (no) because there was no reported disability. The composite was coded as missing only if all of the data for the questions about diagnoses or therapy services (CHQ120, CHQ215, CHQ245, CHQ300, CHQ340, CHQ341) were -7 (refused), -8 (don't know), or -9 (not ascertained).

<sup>&</sup>lt;sup>16</sup> The variable names used to derive this composite are not the same as those used in the ECLS-K because the questions were asked differently in the ECLS-K:2011, with multiple issues asked about together in one item rather than in separate items. In addition, in the ECLS-K:2011, two new variables were included for diagnoses of vision and hearing problems in the spring.

# 7.5.1.11 Primary Language in the Child's Home (X12LANGST)

A composite was created to indicate whether English was a primary language spoken in the home or whether a non-English language was the primary language spoken. In fall 2010, parents were asked if any language other than English was regularly spoken in their home (P1ANYLNG). If a language other than English was not spoken in the home, or if a language other than English was spoken in the home but the primary language of the household (P1PRMLNG) or of the only key parent figure or both key parent figures (P1PRMLN1, P1PRMLN2) was English, the composite is coded as 2 (English language). In cases where there was only one key parent figure in the household, and there were also other adults in the household or persons of unknown age, respondents were asked to report the primary language in the household (P1PRMLNG) and this was used in creating X12LANGST. Otherwise, if there was only one key parent figure in the household and he or she spoke English, and it was not applicable to ask primary language because there were no other adults in the household or persons of unknown age (who could have been adults), the composite is coded as 2 (English language). If both English and another language were spoken in the home, and the respondent reported that two or more languages were spoken equally or they could not choose a primary language, the composite is coded 3 (cannot choose primary language or two languages equally). Otherwise, if a language other than English was spoken (P1ANYLNG), either solely (P1ENGTOO) or primarily in the home (P1PRMLNG), the composite is coded as 1 (non-English language). If it was not applicable to ask primary language because both key parent figures spoke the same non-English language or there was only one key parent figure, he or she spoke a non-English language, and there were no other adults in the household or persons of unknown age (that would have resulted in asking primary language of the household), the composite is coded as 1 (non-English language). If primary language was -9 (not ascertained) and both key parent figures spoke the same non-English language, the composite is coded as 1 (non-English language). If there was not a parent interview in fall 2010, the composite X12LANGST is based on questions about household language from spring 2011. If a language other than English was not spoken in the home (P2ANYLNG), or if a language other than English was spoken in the home but the primary language of the household (P2PRIMLN) was English, the composite is coded as 2 (English language). If the respondent reported that two or more languages were spoken equally or they could not choose a primary language, the composite is coded 3 (cannot choose primary language or two languages equally). Otherwise, if a language other than English was spoken in the home (P2ANYLNG), the composite is coded as 1 (non-English language). Otherwise, the composite is coded -9 (not ascertained).<sup>17</sup>

<sup>&</sup>lt;sup>17</sup> In the ECLS-K, X12LANGST was named WKLANGST and had two categories: non-English and English. The variable used in the ECLS-K was also different from X12LANGST in the ECLS-K:2011 because X12LANGST includes new primary language variables (P1PRMLN1, P1PRMLN2) for the key parent figures.

# 7.5.1.12 First-Time Kindergartner (X1FIRKDG)

Another composite was created to indicate whether a child was in his or her first year of kindergarten in the 2010–11 school year. In fall 2010, parents were asked if it was their child's first, second, or third (or more) year of kindergarten (P1YEARK). If it was the first year of kindergarten, the composite X1FIRKDG is coded 1 (yes). If it was the child's second, third, or greater year of kindergarten, the composite is coded 2 (no). If the fall parent information was missing, data from the child-level teacher questionnaire (T1FIRKDG) was used. Teachers were asked whether the 2010–11 school year was the child's first or second year of kindergarten. If, according to the teacher, it was the child's first year of kindergarten, the composite is coded 1 (yes). If it was the child's second year of kindergarten, the composite is coded 1 (yes). If it was the child's second year of kindergarten, the composite is coded 2 (no). If this information was missing from both the parent and the teacher, the composite is coded -9 (not ascertained).

#### 7.5.1.13 Child's Age at Kindergarten Entry (X1AGEENT)

A composite for the child's age at kindergarten entry was created using the date of birth composite variables and parent reports in fall 2010 whether it was the child's first, second, or third (or more) year of kindergarten. Using the date of birth composite variables (X\_DOBMM, XDOBDD (not on file), XDOBYY), the child's age in months is calculated as of September 1, 2010 if the parent reported that it was the child's first year of kindergarten; as of September 1, 2009 if a parent reported that it was the child's second year of kindergarten; and as of September 1, 2008 if a parent reported that it was the child's third or more year of kindergarten, If data were missing for the parent report of the year of kindergarten was used. If data are missing for the date of birth composites, or both the parent and teacher reports of kindergarten entry, X1AGEENT is coded as -9 (not ascertained).

# 7.5.1.14 Student Kindergarten Class Type and Teacher Class Data Reporting (X1CLASS, X2CLASS)

X1CLASS and X2CLASS are two-digit variables that provide information about the type of kindergarten class in which a child was enrolled (a half-day A.M. class, a half-day P.M. class, or a full-day class) and what teacher/classroom variables should be used for each child. Information about

kindergarten class type was reported in two places: the teacher reported the type(s) of class(es) he or she taught in the teacher-/classroom-level questionnaire (TQA), and the teacher reported the type of kindergarten class in which the child was enrolled in the teacher child-level questionnaire (TQC). The structure of TQA was such that the teacher was asked to report information separately (in different columns) for each type of class that he or she taught. In the data file, information about half-day A.M., half-day P.M., and full-day kindergarten classes is stored in different variables associated with each classroom type. Due to inconsistencies in reporting by teachers, it is not always clear which variables should be used for the specific class in which the child is enrolled. Some teachers did not always report data in the column associated with the type of class he or she indicated teaching (for example, in TQA the teacher reported teaching a full-day kindergarten class but reported data in the A.M. kindergarten column), some teachers did not report teaching the same type of kindergarten class in which he or she indicated the child was enrolled (for example, in TQA the teacher reported teaching only a half-day P.M. kindergarten class but reported in TQC that the child was in an A.M. kindergarten class), and some teachers reported teaching another class in addition to the type of class in which the child was enrolled (for example, in TQA the teacher reported teaching both half-day A.M. and P.M. kindergarten classes and reported in TQC that the child was in an A.M. kindergarten class). X1CLASS and X2CLASS were created as indicators of the agreement in class type information between the TQA and TQC and to tell users which set of variables (A.M., P.M., or full-day) describe the particular kindergarten classroom in which the child was enrolled.

- The first digit of X1CLASS indicates the specific type of kindergarten class in which the child was enrolled (half-day A.M., half-day P.M., or full-day). It was derived primarily from responses on the teacher-reported child-level questionnaire (TQC) (variable T1CLASS). If data on class type from the TQC were missing, then data from the fall Field Management System (FMS) (variable F1CLASS) were used to classify children's class type. There are three values for the first digit of X1CLASS: 1 = full-day class, 2 = half-day A.M. class, and 3 = half-day P.M. class.
- The second digit of X1CLASS indicates whether the teacher provided data on a fullday class (A1FULDAY), a half-day A.M. class (A1HALFAM), a half-day P.M. class (A1HALFPM), or both full-day and half-day classes (A1BOTHCL) in the teacherlevel questionnaire (TQA). There are five values for the second digit of X1CLASS, which points data users to the appropriate class-specific variables from the teacherlevel questionnaire that should be used for each child, or indicates if no TQA data are available: 0 = missing teacher data, 1 = all-day teacher data, 2 = A.M. teacher data, 3 = P.M. teacher data, and 9 = teacher data reported in multiple columns.

X2CLASS was created in a similar manner as X1CLASS, except that the teacher-reported child-level measure from the spring kindergarten TQC (variable T2GRADE) did not have the same

categories as T1CLASS. Specifically, it did not provide detail about whether children in half-day kindergarten attended a morning or afternoon class. Therefore, to specify the first digit of X2CLASS, the TQC variable T2GRADE was used and, for children identified as attending half-day classes in the spring, T1CLASS, F1CLASS and F2CLASS (from the spring FMS) were used to determine whether the child attended in the morning or afternoon. Similar to X1CLASS, the second digit indicates whether the teacher provided data on a full-day class (A2FULDAY), a half-day A.M. class (A2HALFAM), a half-day P.M. class (A2HALFPM), or both full-day and half-day classes (A2BOTHCL) in the teacher-level questionnaire (TQA).

- There are three values for the first digit of X2CLASS: 1 = full-day class, 2 = half-day A.M. class, and 3 = half-day P.M. class.
- There are five values for the second digit of X2CLASS, which points data users to the appropriate class-specific variables from the teacher-level questionnaire that should be used for each child, or indicates if no TQA data are available: 0 = missing teacher data, 1 = all-day teacher data, 2 = A.M. teacher data, 3 = P.M. teacher data, and 9 = teacher data in multiple columns.

Users interested in knowing the type of classroom in which a child was enrolled should use the first digit of the X\*CLASS variable to determine this. Users interested in incorporating teacher and classroom characteristics from the teacher-level questionnaire into their analyses should use the second digit to identify which group of class-specific variables (A.M., P.M., or AD (all-day)) should be used for each child. In instances in which the teacher reported information inconsistently, the first and second digits may not agree with one another. However, the second digit was assigned after a careful review of the data, and those are the variables that should be used for each child. For example, if the child was in a full-day kindergarten class according to the TQC and the second digit points to the half-day A.M. variables, the user should use the half-day A.M data, because it was determined that the teacher reported information for that child's full-day class in the half-day A.M. column of the questionnaire. The meaning of each category in the X1CLASS and X2CLASS variables, as well as the frequencies for children classified in each category, are provided below in exhibit 7-4.

Category label	Category value	Child's kindergarten	Link to teacher class-specific <sup>1</sup> data	Frequency X1CLASS	Frequency X2CLASS
CHILD FULL-DAY CLASS, MISSING TEACHER DATA	10 value	class type Full-day	None	462	1133
CHILD FULL-DAY CLASS, ALL- DAY TEACHER DATA	11	Full-day	AD (A1D or A2D)	12,205	12,974
CHILD FULL-DAY CLASS, MORNING TEACHER DATA	12	Full-day	AM (A1A or A2A)	38	68
CHILD FULL-DAY CLASS, AFTERNOON TEACHER DATA	13	Full-day	PM (A1P or A2P)	0	4
CHILD FULL-DAY CLASS, TEACHER DATA IN MULTIPLE COLUMNS	19	Full-day	Multiple (examine data)	422	522
CHILD MORNING CLASS, MISSING TEACHER DATA	20	Morning	None	72	89
CHILD MORNING CLASS, FULL- DAY TEACHER DATA	21	Morning	AD (A1D or A2D)	17	13
CHILD MORNING CLASS, MORNING TEACHER DATA	22	Morning	AM (A1A or A2A)	1,457	1,455
CHILD MORNING CLASS, AFTERNOON TEACHER DATA	23	Morning	PM (A1P or A2P)	2	7
CHILD MORNING CLASS, TEACHER DATA IN MULTIPLE COLUMNS	29	Morning	Multiple (examine data)	138	90
CHILD AFTERNOON CLASS, MISSING TEACHER DATA	30	Afternoon	None	64	95
CHILD AFTERNOON CLASS, FULL-DAY TEACHER DATA	31	Afternoon	AD (A1D or A2D)	5	0

### Exhibit 7-4. Categories and frequencies for X1CLASS and X2CLASS

See notes at end of exhibit.

#### Child's Link to teacher class-specific<sup>1</sup> data kindergarten Frequency X2CLASS Category Frequency Category label value class type X1CLASŠ CHILD AFTERNOON CLASS, 32 AM (A1A or A2A) 3 11 Afternoon MORNING TEACHER DATA 995 1,038 CHILD AFTERNOON CLASS, 33 Afternoon PM (A1P or A2P) AFTERNOON TEACHER DATA CHILD AFTERNOON CLASS, 39 Multiple 44 51 Afternoon TEACHER DATA IN MULTIPLE (examine data) COLUMNS

#### Exhibit 7-4. Categories and frequencies for X1CLASS and X2CLASS—Continued

<sup>1</sup>Class-specific data refer to teacher-level questionnaire variables that begin with A1D (fall, all-day class), A1A (fall, A.M. class), or A1P (fall, P.M. class), A2D (spring, all-day class), A2A (spring, A.M. class), or A2P (spring, P.M class). See the teacher-level questionnaires to see how these questions were organized and presented in separate columns for each class type.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), fall 2010 and spring 2011.

As can be seen from the information above, for the majority of children, the classroom data provided in TQA were reported for a classroom type that matched the type of classroom the child was reported to be enrolled in in TQC, but this was not the case for all children. As examples, a value of "11" on X1CLASS means that the child was reported to be in a full-day class and the teacher provided data for a full-day class, whereas a value of "32" on X1CLASS means that the child was reported to be in a half-day afternoon class, but the teacher provided data for a half-day morning class and did not also provide data for an afternoon class. A value of "19" on X1CLASS means that the child was reported to be in a full-day class, and the teacher provided data on multiple types of classes (for example, a teacher may have provided data on a half-day morning class and a half-day morning class). For cases with a "9" as the second digit of X1CLASS or X2CLASS, the data user should examine the teacher-provided data to determine which class-specific data they want to link to the child. Although the teacher did not provide data consistently for one type of class in these cases, there may be some class-specific data that match the child's class type and there may be data associated with another class type that the data user would want to use for the child.

#### 7.5.1.15 Child's Receipt of Special Education Services (X2SPECS)

The composite variable X2SPECS indicates whether or not special education questionnaires were requested from teachers in the spring of 2011, based on the presence or absence of a link to a special education teacher or related service provider in the FMS. The value is 1 if special education questionnaires were requested and 2 if special education questionnaires were not requested. This link was established automatically when Individualized Education Program (IEP) or Individualized Family Service Plan (IFSP) information was entered in the FMS by study team leaders based on information from school staff. If a child had an IEP/IFSP, the team leader was required to indicate a link to both a classroom teacher and a special education teacher. The links were verified by team leaders by looking at FMS reports that indicated required teacher links for each child.<sup>18</sup> It should be noted that the links were established to determine IEPs or IFSPs in order to determine if an accommodation might be required for the child assessment. Although some children with an IEP/IFSP that did not require an accommodation are included, the way that IEP/IFSPs were identified for the assessment did not capture all children with an IEP/IFSP if no accommodation was required.

#### 7.5.1.16 Child Assessment Status (X1EXDIS, X2EXDIS)

Two composite variables use FMS data to indicate whether the child was excluded from the assessment due to a disability. Study team leaders obtained information from school staff in fall 2010 and spring 2011 about whether a child had an IEP/IFSP on file and if any information in a child's IEP/IFSP indicated that he or she would need Braille, large print, sign language, or another accommodation that would exclude the child from the assessment. If so, the child was not assessed, and X1EXDIS (or X2EXDIS in spring 2011) was coded 1 (child was excluded from the assessment due to a disability). Otherwise, X1EXDIS (or X2EXDIS in spring 2011) was coded 0 (child was not excluded from the assessment).

<sup>&</sup>lt;sup>18</sup> There was a small number of cases that had an IEP/IFSP according to the FMS, but questionnaires were not requested from teachers. There were no special education teacher IDs (D2T\_ID) for these cases because the children were unlocatable, moved out of the sampled PSU, or were no longer enrolled in school.

#### 7.5.2 Nonparental Care Variables

Variables related to children's nonparental care arrangements were constructed from information provided in the parent interviews. One set of variables provides information about current nonparental before- and after-school care arrangements, and another set of variables provides information about nonparental care arrangements used during the year prior to kindergarten.

### 7.5.2.1 Current Before- and After-School Care Arrangements (X1BASC, X1HRSNOW, X1PRIMNW)

Information about the child's current nonparental before- and after-school care arrangements was obtained in the fall 2010 parent interview. The parent was asked separately about care that the child currently received that was provided in a private home by a relative (someone other than the child's parents who was related to the child), provided in a private home by a nonrelative (caregivers such as home child care providers, regular sitters, or neighbors), and provided in a center-based care setting (e.g., care in a day care center or before- or after-school program that was at the child's school or another location).

The total number of hours each week that the child spent in all relative, nonrelative, and center-based arrangements is provided in the composite variable X1HRSNOW. If a child did not have any regularly scheduled nonparental before- or after-school care arrangements, the value for this composite variable is set to 0. If the arrangement where the child spent the most time within each type of child care (e.g., relative care with a grandmother) was not regularly scheduled at least once a week, other hours of child care of the same type with another provider (e.g., child care with another relative) are not included in the computation of X1HRSNOW. However, if the arrangement where the child spent the most time within each type of child care (e.g., center-based care) was regularly scheduled at least once a week, other hours of child care (e.g., child care at another center) are included in the computation of X1HRSNOW. If the questions about the type of care the child currently has (P1RELNOW, P1NRNOW, P1CTRNOW); whether the child care was regularly scheduled (P1RWEEK, P1NWEEK, P1CWEEK); the number of care providers of a particular type (P1RELNUM, P1NRNUM, P1CTRNUM); or the number of hours of child care (P1RHRS, P1NHRS, P1CHRS, P1RHROTH, P1NHROTH, or P1CHROTH) were coded as -7 (refused,) -8 (don't know,) or -9 (not ascertained), then X1HRSNOW is coded as -9 (not ascertained).

The composite variable X1PRIMNW indicates the type and location of the child's primary, regular, nonparental care arrangement; that is, the arrangement that was regularly scheduled at least once a week in which the child spent the most time at the time of the parent interview. For children with a regular arrangement, the variable indicates the type of provider (relative, nonrelative, center-based), and for relative and nonrelative arrangements, the location where care was provided (in the child's home; in another home; or the location varied, that is, sometimes in the child's home and sometime in another home). Children who did not have any regular nonparental before- or after-school care arrangements are included in a separate category. Specifically, X1PRIMNW is a categorical variable that classifies the child's primary nonparental care arrangement into the following categories: 0 (no nonparental care arrangements); 1 (relative care in the child's home); 2 (relative care in another home); 3 (relative care, location varies); 4 (nonrelative care in the child's home); 5 (nonrelative care in another home); 6 (nonrelative care, location varies); 7 (center-based program); and 8 (two or more types of care with equal number of hours). Category 8 is used when a child had at least two arrangements of different types (for example, one relative care arrangement and one center-based care arrangement) and the parent reported that the child spent the same number of hours in each care arrangement on a weekly basis. If child care was regularly scheduled each week, but the number of hours in care was missing and a child only had one type of child care, that care type is identified as the primary arrangement. Next, if the total number of hours across all types of care (X1HRSNOW) is 0, X1PRIMNW is set to 0 (no nonparental care). After that, if the total number of hours of across all types of care (X1HRSNOW) is -9 (not ascertained) or if the place of care (P1RPLACE or P1NPLACE) is missing, then X1PRIMNW is -9 (not ascertained). Otherwise, for children with more than one type of child care arrangement, the value for X1PRIMNW is identified based on which type of care had the most number of hours and where the care (for relative and nonrelative care) was located. If there are more hours for a center-based program than for relative or nonrelative care, X1PRIMNW is coded as 7 (center-based program) regardless of whether there are missing data for the place of relative care or nonrelative care. If two or more child care arrangements were used for the same number of hours, X1PRIMNW is set to 8 (two or more types of care with equal hours), regardless of, having missing place of relative care or nonrelative care. As noted above, if the total number of hours across all types of care (X1HRSNOW) is -9 (not ascertained), then X1PRIMNW is -9 (not ascertained) in most cases; however, there are two exceptions to this. If the number of hours for one child care arrangement are more than those for another arrangement, and the hours for the secondary arrangement (P1RHROTH, P1NHROTH, or P1CHROTH) that are part of X1HRSNOW are missing for the type of care that has the most hours, X1PRIMNW is coded according to the child care with the most

hours despite missing data because adding additional secondary hours would not change the outcome of which arrangement had the most hours.<sup>19</sup>,<sup>20</sup>

The variable X1BASC indicates the type of arrangement: 1 (relative), 2 (nonrelative), or 3 (center-based) that was selected for the before- and after-school care (BASC) component. An arrangement was eligible for the BASC component if the child was reported to be in this arrangement on a regular basis for a minimum of 5 hours per week, if the provider was at least 18 years old, if the care was provided before or after school, and if permission to contact the provider had been given by the parent. The arrangement in which the child spent the most number of hours that met these criteria was selected for the BASC component. If a child had more than one eligible arrangement and was cared for in each eligible arrangement for an equal number of hours each week, the child care arrangement was selected for the BASC component using a random number.<sup>21</sup> If a respondent did not provide enough information about a particular type of care to determine a child's primary arrangement, but he or she did provide enough information about another type of care that qualified for the BASC component, the child care arrangement that had complete data was selected for the BASC. If a child had no child care arrangements that were eligible, or if the data needed to know if the case could be selected for BASC (e.g., hours in care) are -7 (refused) or -8 (don't know), if the parent did not give permission to contact the

<sup>&</sup>lt;sup>19</sup> Case 10011689 has missing place of care in P1RPLACE but is coded on the composite X1PRIMNW based on a comment entered by the interviewer during the interview. Case 10014843 is missing data on the number of centers the child is attending now (P1CTRNUM), which results in X1HRSNOW=-9 because hours for secondary care arrangements in a center were not collected, but the center-based program that the child was in the most number of hours was 1 hour per week. Therefore, other programs the child was also in would have had to be for less than one hour. Because the number of hours in care with a relative was much higher than that, relative care was coded as the primary care arrangement.

<sup>&</sup>lt;sup>20</sup> X1PRIMNW is coded differently than in the ECLS-K. In the ECLS-K, the hours of care were required to have a nonmissing value on the composite, even if there was only one type of child care. Also, in the ECLS-K, if the location of care with a relative or nonrelative was missing, the composite was missing. The values are also different in X1PRIMNW than the ECLS-K. Categories 3 and 6 are new. These were collapsed into a category 7 (location varies) in the ECLS-K, which has been deleted for the ECLS-K:2011.

<sup>&</sup>lt;sup>21</sup> In some cases, the parent reported one type of care in the parent interview but when questionnaires were sent to providers, the providers indicated another type of care. There are four cases (10008710, 10011525, 10013837, and 10015526) for which the type of child care reported in the parent interview was center-based care, so X1BASC is coded as 3 (center-based), but the child care provider indicated that the children were in home-based care. Thus, these children have data for a home-based care provider.

There are also 22 cases for which the type of child care reported in the parent interview was with a relative or nonrelative; however, the child care providers indicated they provided center-based care. Thus, these children have data for center-based care providers. There was also one case (10009295) that had relative care selected for BASC, but a comment from the interviewer indicated that the respondent did not want to give the relative's contact information so she instead provided information for the center that the child attends. The center was attended for enough hours to qualify for the BASC component (17 hours a week), but the hours in relative care were greater (20 hours a week).

In addition, there are 324 cases (254 cases with X1BASC = 1 (relative) and 70 cases with X1BASC = 2 (nonrelative)) that do not have provider data and are ineligible because one of the children's parents was identified as the provider (68 cases), the provider was unlocatable (173 cases), the respondent did not provide enough information for a match to a provider (48 cases), the provider indicated he or she did not provide before/after school care and did not take care of the child (1 case), or the case was not matched to a provider because the parent interview was a breakoff and mistakenly excluded from the BASC component (20 cases, including one (10005104) with no child care provider contact information). In addition, because of the timing of obtaining consent for the child to participate in the study, home-based provider questionnaires were not fielded in 14 cases that had initial refusals and thus the child's participation in the study was not certain. There are also 92 cases where X1BASC = 3 (center-based), but there are no provider data because the child had a provider who was no longer in business (1 case), was ineligible (e.g., a parent of the child) (21 cases), could not be located (23 cases), a respondent who did not provide enough information for a match to a provider (18 cases), or the case was not matched to a provider because the parent interview was a breakoff and mistakenly excluded from the BASC component (21 cases). In addition, because of the timing of obtaining consent for the child to participate in the study, center provider questionnaires were not fielded for 8 cases that had initial refusals and thus the child's participation in the study was not certain.

child's child care provider in parent interview question CCQ380, or if the child care provider was less than 18 years old, X1BASC is coded as -1 (not applicable). If the respondent to the parent interview broke off in the child care section, and the parent interview question CCQ380 is coded -9 (not ascertained), X1BASC is also coded as -9 (not ascertained).

### 7.5.2.2 Nonparental Care Arrangements During the Year Prior to Kindergarten (X12CAREPK, X12PRIMPK)

Information about any nonparental care arrangements that the child had during the year prior to kindergarten was collected in the fall 2010 parent interview. If this information was not collected in the fall because there was no parent interview completed in the fall, a reduced set of questions about nonparental care in the year prior to kindergarten was asked in the spring 2011 parent interview. The two composite variables indicating the nonparental care children received during the year prior to kindergarten were created using information from the parent interview in the round in which it was collected. X12CAREPK has a value of "yes" or "no" and indicates whether the child received any nonparental care during the year before entering kindergarten.<sup>22</sup> If an answer in the parent interview about whether the child received nonparental care during the year before entering kindergarten or an answer in the parent interview about whether the child ever received nonparental care (a question that led to the question about nonparental care during the year before entering kindergarten) was -7 (refused), -8 (don't know), or -9 (not ascertained), X12CAREPK is coded as -9 (not ascertained).

X12PRIMPK indicates the type and location of the child's primary, regular, nonparental care arrangement, that is, the arrangement in which the child spent the most hours per week during the year before kindergarten. It is a categorical variable with categories: 0 (no nonparental care arrangements); 1 (relative care in the child's home); 2 (relative care in another home); 3 (relative care, location varies/not asked); 4 (nonrelative care in the child's home; 5 (nonrelative care in another home); 6 (nonrelative care, location varies/not asked); 7 (center-based program); 8 (two or more types of care with equal number of hours). Category 8 is used when a child had at least two arrangements of different types (for example, one relative care arrangement and one center-based care arrangement), and the parent reported that the child spent the same number of hours in each care arrangement on a weekly basis in the year before kindergarten. If the number of hours in care was missing, but a child had only one type of child care, that

<sup>&</sup>lt;sup>22</sup> The Head Start data that were used to create this composite in the ECLS-K were not collected in the ECLS-K:2011. Parents were asked about whether care with relatives or care in child care centers was Head Start, but additional information about Head Start was not collected.

care type was identified as the primary arrangement if the location of care was known or not asked. In fall 2010, questions were asked about the location of relative care and nonrelative care. If data about the location of care are missing, X12PRIMPK is coded as -9 (not ascertained). Because questions about the location of care were not asked in spring 2011, any primary care arrangements with relatives or nonrelatives are identified as relative or nonrelative care, with the location "not asked" (categories 3 or 6). Next, if the total number of hours that a child was in any type of care was 0, X12PRIMPK is set to 0 (no nonparental care). After that, if the hours of any type of care (P1RHRSPK, P1NHRSPK, P1CHRSPK) are missing -7 (refused), -8 (don't know), or -9 (not ascertained), then X12PRIMPK is -9 (not ascertained). If an answer in the parent interview about whether the child received nonparental care during the year before entering kindergarten or an answer in the parent interview about nonparental care during the year before entering kindergarten) was -7 (refused), -8 (don't know), or -9 (not ascertained), then X12PRIMPK was also -9 (not ascertained).

Otherwise, for children with more than one type of child care arrangement, the value for X1PRIMPK is identified based on which type of care had the most number of hours and where the care (for relative and nonrelative care) was located. If there are more hours for relative care or nonrelative care, but data for the variables about the location of care are missing, X12PRIMPK is -9 (not ascertained). If two or more child care arrangements were used for the same number of hours, X12PRIMPK is set to 8 (two or more types of care with equal hours).<sup>23</sup>

#### 7.5.3 Family and Household Composite Variables

Many composite variables are created to provide information about the sampled children's family and household characteristics. It should be noted that composite variables about household composition take into account only those people who were household members at the time of the parent

<sup>&</sup>lt;sup>23</sup> There are several differences in the way this composite was calculated in the ECLS-K:2011 compared to the ECLS-K. First, if a parent in the fall 2010 ECLS-K:2011 indicated that the child received only one type of regular care the year before kindergarten, but skipped (or answered "don't know") for the number of hours in the care arrangement, the regular child care arrangement was coded as the primary arrangement even though there was not a value for hours of care. In the ECLS-K, if the number of hours in the care arrangement was missing. Second, items from spring 2011 were used in the ECLS-K:2011 composite, but not in the ECLS-K composite. If one type of child care arrangement before kindergarten was reported in spring 2011, that arrangement was coded as the primary arrangement. Third, the Head Start variable that was used to create this composite in the ECLS-K was not in the ECSL-K:2011. Finally, the values for this composite are different than those used in the ECLS-K. Categories 3 and 6 are new. These were collapsed into a category 8 (location varies) in the ECLS-K that has not been used in the ECLS-K:2011.

interview. If information on household composition was collected in the fall 2010 parent interview, the parent respondent was asked to indicate whether the people living in the household in the fall were still in the household in the spring 2011 parent interview. Household members were included in the derivation of the spring 2011 composite variables if they were still living in the household in the spring, as indicated in the variables P2CUR\_1–P2CUR\_25.

### 7.5.3.1 Household Counts (X1HTOTAL, X2HTOTAL, X1NUMSIB, X2NUMSIB, X1LESS18, X2LESS18, X10VER18, X2OVER18)

Two composites, X1HTOTAL and X2HTOTAL, provide a count of the total number of household members. In fall 2010, this was a count of the total number of persons identified by the respondent as household members. In spring 2011, the count of the total number of persons in the household was based on household members still in the household (as identified in verification questions that the household member from the fall 2010 interview was still there) and any new persons who were added since the fall 2010 interview. In households that did not participate in fall 2010, X2HTOTAL was a count of the total number of persons identified by the respondent as household members.

There are also composite variables on the file that indicate the total numbers of adults and children in the household. Information about household members' ages was collected in the household matrix, or roster, section of the parent interview. These age composites that involve counts of household members are X1LESS18 and X2LESS18 (total number of people in the household under age 18, including the study child, siblings, and other children) and X1OVER18 and X2OVER18 (total number of people in the household age 18 or older). Those household members with missing age who were the child's parent or grandparent are counted as adults in X1OVER18 and X2OVER18. Cases with at least one household member with missing age who is not identified as a parent or grandparent are coded as -9 (not ascertained) on X1OVER18, X2OVER18, X1LESS18, and X2LESS18.<sup>24</sup> All household members who were 18 years old or older in fall 2010 and spring 2011 are counted for X1OVER18 and X2OVER18 and X2OVER18 is created by subtracting X1OVER18 from X1HTOTAL.<sup>25</sup>

<sup>&</sup>lt;sup>24</sup> As noted above, for the composites X1OVER18, X2OVER18, X1LESS18, and X2LESS18, household members with missing ages were coded according to whether the household member is a parent or grandparent. However, for skips used in the administration of the parent interview, household members with missing ages were assumed to be adults (e.g., box 6 in fall parent interview section PLQ).

<sup>&</sup>lt;sup>25</sup> Cases 10007811 and 10008017 originally had household members listed in the parent interview who were not actually in the household. These persons were edited out of the variables indicating relationship to the study child, but their presence in the household is still reflected in X1HTOTAL and X1LESS18 were not changed. For case 10007811, X1HTOTAL should be 9 not 10, and X1LESS18 should be 7 not 8. For case 10008017, X1HTOTAL should be 3 not 4, and X1LESS18 should be 1 not 2.

The composites X1NUMSIB and X2NUMSIB indicate the total number of siblings (biological, step-, adoptive, or foster) with whom the child lived in the household (FSQ130). Siblings were identified by questions in the parent interview asking the relationship of each household member to the study child. X1NUMSIB and X2NUMSIB do not count children of the parent's partner (FSQ180 = 5) as siblings.

#### 7.5.3.2 Food Security Status

The food security status of the children's household was determined by responses to the 18 food security questions (P2WORRFD through P2NOMONY) asked in the spring 2011 parent interview.<sup>26</sup> The questions measured the households' experiences related to food insecurity and reduced food intake in the last 12 months. Questions were asked about adults' experiences separately from the experiences of the children in the household. They were combined into scales using statistical methods based on the Rasch measurement model. The food security questions were developed by academic researchers using ethnographic and case-study methods with low-income women and families to identify natural language used to describe their situations and behaviors when they had difficulty obtaining enough food. The scales derived from the food security questions were validated using statistical methods based on item response theory and by comparing measured food security status of the child's household generally (based on all 18 adult and child items), as well as the food security status of the adults (based on 10 household- and adult-referenced items) and of the children (based on 8 child-referenced items in the household separately.

When interpreting food security statistics, users should keep in mind that food security status is a household-level characteristic. In most households classified as having very low food security, the children in the household were not food insecure at that level of severity. Young children in U.S. households are generally protected from disrupted diets and reduced food intake to a greater extent than are older children or adults in the same households. The household scale combines adult and child items and reflects primarily experiences of adults in the household. The child scale is more likely to reflect the food security of the sampled child, but it may reflect, primarily, the experiences of elder siblings of the sampled child if any are present. The questions refer to conditions among any or all of the children in the

<sup>&</sup>lt;sup>26</sup> Some of the item numbers for these variables are different from those used in the ECLS-K because the food security section was reordered in the ECLS-K:2011. Three items also had slight wording changes (FDQ160, FDQ170, and FDQ180). Composites that involve items with wording changes relative to the ECLS-K have a "2" at the end of them.

household. Thus, for many research applications, the adult scale may be preferred instead of the household scale or children's scale. In other applications, the household or children's scale may be used with controls for the presence and age of older children in the household.

Calculations of the scales indicating household food security and adult food security were carried out in accordance with the standard methods described in *Guide to Measuring Household Food Security, Revised 2000* (U.S. Department of Agriculture 2000). Calculations of the scale indicating children's food security were carried out in accordance with the standard methods described in *Measuring Children's Food Security in U.S. Households, 1995–99* (U.S. Department of Agriculture 2002). Analysis of the ECLS-K:2011 data using statistical methods based on the Rasch measurement model found that item severity parameters in the ECLS-K data were near enough to the standards benchmarked by the Current Population Survey Food Security Supplement that it was appropriate to use the standard benchmark household scores, which are based on the latter data source.

#### 7.5.3.2.1 Food Security Status: Raw Scores (X2FSRAW2, X2FSADRA2, and X2FSCHRA)

The household food security raw score, X2FSRAW2, is a count of affirmative responses to the 18 food security items. This is an ordinal-level measure of food insecurity. It can be used in analyses as an ordinal measure of food insecurity or to identify more severe or less severe categories of food insecurity than those identified in the categorical food security variables described in section 7.5.3.2.3. The raw score is only ordinal, not interval, so should not be used where a linear measure is required, such as for calculation of a mean. Responses to items skipped because of screening are assumed to be negative for the purpose of creating the score. For cases with missing data but at least some valid responses, missing responses were considered to be negatives. Cases with no valid responses to any of the 18 food security items are coded as missing -9 (not ascertained). X2FSRAW2 ranges from 0 to 18. X2FSADRA2 is the adult food security raw score, which is a simple count of the number of household- and adult-referenced food security raw score, which is a simple count of the number of child-referenced food security raw score, which is a simple count of the number of child-referenced food security raw score, which is a simple count of the number of child-referenced food security raw score, which is a simple count of the number of child-referenced food security raw score, which is a simple count of the number of child-referenced food security raw score, which is a simple count of the number of child-referenced food security raw score, which is a simple count of the number of child-referenced food security raw score, which is a simple count of the number of child-referenced food security raw score, which is a simple count of the number of child-referenced food security items affirmed by the parent. It ranges from 0 to 8.

### 7.5.3.2.2 Food Security Status: Continuous Measures (X2FSSCAL2, X2FSADSC2, and X2FSCHSC)

X2FSSCAL2 is the scale score presentation of the household food security items. It is a continuous, interval-level measure of food insecurity and is appropriate for linear models, such as correlation, regression, or analysis of variance. This scale score is a Rasch transformation of the raw score (X2FSRAW2). Valid values range from 1.4 to 13, with higher values indicating more severe food deprivation. Under Rasch-model assumptions, the scale score for households that affirm no items (raw score = 0) is undefined. It is less than the lowest measured value (1.4), but its precise value is unknown and may vary substantially among households. X2FSSCAL2 for such cases is assigned a value of -6. These households are food secure, but the appropriate size of the interval between their score and the score of households that affirmed one item is not known and varies from household to household. If these cases (a substantial majority of all cases) are included in linear models, appropriate methods must be used. For example, if food security scale score is a dependent variable, a selection model such as Tobit may be appropriate. If food security scale score is a predictor variable, a value of 0 may be assigned to raw score 0 and a dummy variable added to identify households with 0 raw score.

X2FSADSC2 is the adult food security scale score. This is a measure of the severity of food insecurity experienced by adults in the household in the previous 12 months. It is a continuous, intervallevel measure based on the Rasch measurement model and is appropriate for linear models. It is on the standard (logistic-unit) metric described in *Guide to Measuring Household Food Security, Revised 2000* (U.S. Department of Agriculture 2000) (for households without children). Valid values range from 1.7 to 11.1, with higher values indicating more severe food deprivation. The scale score is undefined for households that affirmed no adult-referenced items and is coded -6 (see discussion of X2FSSCAL2 above).

X2FSCHSC is the children's food security scale score. This is a measure of the severity of food insecurity experienced by children in the household in the previous 12 months. It is a continuous, interval-level measure based on the Rasch measurement model and is appropriate for linear models, such as correlation, regression, or analysis of variance. It is on the standard (logistic-unit) metric described in *Measuring Children's Food Security in U.S. Households, 1995-99.* Valid values range from 4.1 to 12.2, with higher values indicating more severe food deprivation. The scale score is undefined for households that affirmed no child-referenced items and is coded -6 (see discussion of X2FSSCAL2 above).

### 7.5.3.2.3 Food Security Status: Categorical Measures (X2FSSTAT2, X2FSADST2, and X2FSCHST)

X2FSSTAT2 is a categorical measure of household food security status based on the household's food security raw score, X2FSRAW2. X2FSSTAT2 assigns households into one of three ordered categories: food secure, having low food security, and having very low food security. The two categories "low food security" and "very low food security" together make up the more general category, food insecurity. X2FSSTAT2 is appropriate for comparing percentages of households with food insecurity or very low food security across subpopulations and can be used as a categorical variable in associative models.

X2FSADST2 is a categorical measure of adults' food security status based on the household's adult food security raw score, X2FSADRA2. X2FSADST2 identifies households as food secure, having low food security among adults, or having very low food security among adults. This variable is appropriate for comparing percentages of households with food insecurity among adults across subpopulations.

X2FSCHST is a categorical measure of children's food security status based on the children's food security raw score, X2FSCHRA. X2FSCHST identifies households as having only food secure children, having low food security among children, or having very low food security among children. In earlier rounds of ECLS-K, the categorical measure of children's food security status did not differentiate households with low food security among children (raw scores 2, 3, and 4) from households in which all children were food secure (raw scores 0 and 1). USDA began making this differentiation in data products in 2006 and began publishing statistics based on the new categorization in 2009. The two categories "low food security among children" and "very low food security among children" together make up the more general category, food insecurity among children (alternatively described as, "households with food insecure children"). X2FSCHST is appropriate for comparing percentages of households with food insecurity among children and very low food security among children across subpopulations. When interpreting children's food security statistics, users should remember that these variables represent the most severe food insecurity experienced by any child in the household and may not reflect experiences of the child in the ECLS-K:2011 study if there are other children—especially older children—in the household.

### 7.5.3.3 Parent Identifiers and Type in the Household (X1IDP1, X2IDP1, X1IDP2, X2IDP2, X1HPAR1, X2HPAR1, X1HPAR2, X2HPAR2, X1HPARNT, X2HPARNT)

X1IDP1 and X1IDP2 indicate the positions in the household roster of the sampled child's residential parent/parent figure(s) in the fall 2010. Similarly, X2IDP1 and X2IDP2 indicate the positions in the household roster of the sampled child's residential parent/parent figure(s) in the spring 2011.<sup>27</sup> The construction of parent identifiers and the household composition variables from the parent interview data was a multi-step process. First, it was determined from household roster variables whether there was a mother (biological, adoptive, step-, or foster) and/or a father (biological, adoptive, step-, or foster) in the household. Using this information, the following method was used to create X1IDP1 and X1IDP2 for the fall. The same method was used to create X2IDP1 and X2IDP2 for the spring.

- If there was only one mother (of any type) and only one father (of any type) in the household, the mother was identified as parent 1 (X1IDP1/X2IDP1) and the father was identified as parent 2 (X1IDP2/X2IDP2).
- If there was only one mother (of any type) in the household, the mother was identified as parent 1. If there was a mother and she had a male spouse/partner in the household, the spouse/partner was identified as parent 2. If there was no spouse/partner in the household, parent 2 is coded -1 (not applicable).
- If there was only one father (of any type) in the household and no mother, the father was identified as parent 1. If there was a father and he had a female spouse/partner in the household, the spouse/partner was identified as parent 1 and the father was identified as parent 2.<sup>28</sup> If there was no spouse/partner in the household, parent 2 is coded -1 (not applicable).
- If there were two mothers in the household, an order of preference was used to identify one mother to be parent 1, with the order specified as biological, adoptive, step-, foster mother or female guardian, then other female parent or guardian.<sup>29</sup> The other mother was identified as parent 2.<sup>30</sup> If there were two mothers of the same type

<sup>&</sup>lt;sup>27</sup> In the ECLS-K, the parent identifiers were P1MOMID, P1DADID, P2MOMID, and P2DADID. These have been combined into parent 1 and parent 2 variables in the ECLS-K:2011.

 $<sup>^{28}</sup>$  In two households (10016769 and 10017525), the spring 2011 respondent refused to provide information (name, age, sex, etc.) about the other parent. In one of these cases (10016769), the father respondent appears as parent 1 (X2IDP1), due to the absence of information about the other parent figure, who is identified as parent 2 (X2IDP2). In the other case (10017525), the biological mother respondent appears as parent 1 (X2IDP1) and her spouse/partner appears as parent 2 (X2IDP2). In this case, the biological mother would have appeared as parent 1 regardless of the sex and relationship of the other parent to the child.

<sup>&</sup>lt;sup>29</sup> There were new categories in the ECLS-K:2011 parent interview for "Other female parent or guardian" in FSQ.140 and "Other male parent or guardian" in FSQ.150 that were not included in the ECLS-K.

<sup>&</sup>lt;sup>30</sup> For case 10018131, the child is reported as having two father figures and two mother figures in the household. The detailed relationship questions indicate that the household contains the biological mother and stepfather, as well as two older persons identified as adoptive parents. Based on established priorities for the designation of parents, the biological mother and adoptive father were chosen as parent figures for whom the composite variables were created. Analysts will wish to use their own judgment in how to treat the adult household members in their own analyses.

- (e.g., two adoptive mothers) or there were two mothers and the type for both was -7 (refused) or -8 (don't know), the mother with the lowest person number in the household roster was identified as parent 1 and the other mother was identified as parent 2.
- If there were two fathers in the household, an order of preference was used to identify one father to be parent 1, with the order specified as biological, adoptive, step-, foster father or male guardian, then other male parent or guardian. The other father was identified as parent 2. If there were two fathers of the same type (e.g., two adoptive fathers) or there were two fathers and the type for both was -7 (refused) or -8 (don't know), the father with the lowest person number in the household roster as identified as parent 1 and the other father was identified as parent 2.
- If there was no one in the household identified as a mother or father, then a female parent figure was identified as person 1.<sup>31</sup> If the female parent figure had a male spouse or partner, the spouse/partner was identified as person 2. For example, if a child lived with his grandmother (the respondent) and grandfather, and neither his mother nor father also lived in the household, then the grandmother was identified as parent 1 and the grandfather was identified as parent 2. If only the grandfather lived in the household, the grandfather was collected for these "parent figures."<sup>32</sup>

Once parents/parent figures were identified, X1HPAR1, X1HPAR2, X2HPAR1, and X2HPAR2 were created to identify the specific relationship of parent 1 and parent 2 to the study child.<sup>33</sup> It should be noted, however, that for households in which the child lived with parent figures other than his or her mother and/or father, the parent figures identified in X1IDP1 and X1IDP2 (and X2IDP1 and X2IDP2 in the spring) were not defined as parents (meaning biological, step-, adoptive, or foster) for the construction of X1HPAR1, X1HPAR2, X1HPAR1, and X2HPAR2. For example, if there are a grandmother and grandfather and there are no parents listed in the household, X1HPAR1 and X1HPAR2 would be coded as category 15 (no resident parent).

<sup>&</sup>lt;sup>31</sup> There is one case (10014051) that has a -9 (not ascertained) for X2IDP1, X2IDP2, and other household composites (X2RESREL, X2HPAR1, X2HPAR2, X2HPARNT, X2NUMSIB, X2LESS18, X2OVER18, X2HTOTAL) because the respondent ended the interview before data about additional household members and their relationship to the study children were obtained.

<sup>&</sup>lt;sup>32</sup> Some households have parent configurations that appear unusual. Among these are case 10000679, where the grandmother respondent reported that her spouse/partner was the child's stepfather, 10013393 where the grandmother respondent reported that her spouse/partner was the child's adoptive father, and 10018019 where the child's aunt reported that her spouse/partner was the child's father.

<sup>&</sup>lt;sup>33</sup> These variables are a combination of P1HMOM and P1HDAD, and P2HMOM and P2HDAD from the ECLS-K.

X1HPARNT and X2HPARNT indicate the type(s) of parents living in the household with the study child. The values for the X1HPARNT and X2HPARNT composites are as follows:

- 1 = two biological/adoptive parents;
- 2 = one biological/adoptive parent and one other parent/partner;
- 3 = one biological/adoptive parent only; and
- 4 = one or more related or unrelated guardians.

Like X1HPAR1 and X1HPAR2, study children living with parent figures, rather than biological, adoptive, step-, or foster parents, are categorized as unrelated guardians in category 4 (one or more related or unrelated guardians) for X1HPARNT and X2HPARNT.<sup>34</sup>

In addition to two questions asking where parent 1 and parent 2 were born (P2PARCT1, P2PARCT2) and when, if applicable, they moved to the United States (P2PAREM1, P2PAREM2), there are three sections in the parent interview that asked questions about the residential parent(s) or parent figure(s):

- PLQ, Primary language;
- PEQ, Parent education; and
- EMQ, Employment.

<sup>&</sup>lt;sup>34</sup> These categories are different from the categories in the ECLS-K that were:

<sup>1 =</sup> Biological mother and biological father

<sup>2 =</sup> Biological mother and other father (step-, adoptive, foster)

<sup>3 =</sup> Biological father and other mother (step-, adoptive, foster)

<sup>4 =</sup> Biological mother only

<sup>5 =</sup> Biological father only 6 = Two adoptive parents

<sup>7 =</sup> Single adoptive parent or adoptive parent and stepparent 8 = Related guardian(s)

<sup>9 =</sup> Unrelated guardian(s)

Each of these sections was completed during the parent interview for up to two parents or parent figures.<sup>35</sup> To indicate which household member or members were the subject of each section, "pointer" variables that hold the original number of the household member on the household roster were used. To illustrate how the pointer variables work, suppose there is a household with both a mother and a father who were listed third and fourth individuals in the household roster. Household member #3, the mother, will be parent 1 and X1IDP1 will equal 3. The pointer variables correspond to the parent identifiers; thus the pointer for the PEQ education section, P1PEQHH1, will also equal "3." The answers to the education questions for the mother will be contained in variables for this section of the interview that end with the suffix "\_1" (e.g., P1HIG\_1, P1ENR\_1, P1FPT\_1, etc.). The suffix "\_1" indicates that the data are for the first parent. Similarly, household member #4, the father, will be parent 2 and X1IDP2 will equal 4. The pointer variable for the PEQ education section, P1PEQHH2, will also equal "4." The answers to the education questions for the father will be contained in variables for this section of the interview that end with the suffix "\_2" (e.g., P1HIG\_2, P1ENR\_2, P1FPT\_2, etc.). The suffix "\_2" indicates that the data are for the second parent. Table 7-1 identifies the pointer variables included on the data file.

X1IDP1 is always equal to the pointer variables P1EMPP1, P1PEQHH1, and P1PLQHH1 (where applicable) and X1IDP2 is always equal to P1EMPP2, P1PEQHH2, and P1PLQHH2 (where applicable). In addition, X2IDP1 is always equal to P2EDUP1 (for R1 nonrespondents) and X2IDP2 is always equal to P2EDUP2 (for R1 nonrespondents). There is no difference between the pointer variables and the composite variables that identify the parents, other than when a pointer is not applicable (the PLQ pointers for household only speaking English, for example).

<sup>&</sup>lt;sup>35</sup> The computer-assisted interview (CAI) application for the ECLS-K:2011 parent interviews was programmed in a way that did not capture information on both parent figures in a small number of households. For example, for case 10012475, the CAI application did not identify the same-sex partner as a parent figure and did not ask about the education and employment of the second parent figure. As described in section 7.5.3.8, missing values were imputed for parent education (X12PAR1ED\_I and X12PAR2ED\_I) and parent occupational prestige (X1PAR1SCR\_I and X1PAR2SCR\_I). In a small number of cases, however, the second parent was identified after imputation took place and, as a result, these cases have missing data for X12PAR2ED (10017525, 10016769, 10017336, 10001179, and 10012475).

Person pointer	r	Interview item	
P1PLQHH1	P1 PLQ041-090 HH PERSON POINTER 1	P1PRMLN1 P1READE1 P1SPEAK1 P1UNDER1 P1UNDER1 P1UNDER1 P1CHL_1	P1 PLQ041 PRIMARY LANGUAGE AT HOME-PAR 1 P1 PLQ050A HOW WELL PARENT 1 READS ENGLISH P1 PLQ050B HOW WELL PARENT1 SPEAKS ENG P1 PLQ050C HOW WELL PARENT1 UNDERST ENG P1 PLQ050D HOW WELL PARENT1 WRITE ENG P1 PLQ083 PERSON 1 LANGUAGE TO CHILD P1 PLQ090 CHILD'S LANGUAGE TO PERSON 1
P1PLQHH2	P1 PLQ041-090 HH PERSON POINTER 2	P2PRMLN2 P2READE2 P2SPEAK2 P2UNDER2 P2UNDER2 P2UNDER2 P2UNDER2 P2CHL_2	P2 PLQ041 PRIMARY LANGUAGE AT HOME-PAR 2 P2 PLQ050A HOW WELL PARENT 2 READS ENGLISH P2 PLQ050B HOW WELL PARENT2 SPEAKS ENG P2 PLQ050C HOW WELL PARENT2 UNDERST ENG P2 PLQ050D HOW WELL PARENT2 WRITE ENG P2 PLQ083 PERSON 2 LANGUAGE TO CHILD P2 PLQ090 CHILD'S LANGUAGE TO PERSON 2
P1PEQHH1	P1 PEQ020–080 PERSON 1 ROSTER NUMBER	P1HIG_1 P1HIS_1 P1ENR_1 P1FPT_1 P1TRN_1 P1WKL_1	P1 PEQ020 PERS 1 HIGHEST EDUCATION LEVEL P1 PEQ030 IF PERS 1 HIGH SCHOOL DIPLOMA/GED P1 PEQ050 IF PERS 1 ENROLLED IN COURSES P1 PEQ060 PERS 1 COURSE FULL/PART TIME P1 PEQ070 IF PERSON 1 GETS JOB TRAINING P1 PEQ080 PERS 1 HRS/WEEK IN TRAINING
P1PEQHH2	P1 PEQ020–080 PERSON 2 ROSTER NUMBER	P1HIG_2 P1HIS_2 P1ENR_2 P1FPT_2 P1TRN_2 P1WKL_2	P1 PEQ020 PERS 2 HIGHEST EDUCATION LEVEL P1 PEQ030 IF PERS 2 HIGH SCHOOL DIPLOMA/GED P1 PEQ050 IF PERS 2 ENROLLED IN COURSES P1 PEQ060 PERS 2 COURSE FULL/PART TIME P1 PEQ070 IF PERSON 2 GETS JOB TRAINING P1 PEQ080 PERS 2 HRS/WEEK IN TRAINING
P1EMPP1	P1 EMQ020-100 PERSON 1 ROSTER NUMBER	P1PAY_1 P1VAC_1 P1JOB_1 P1HRS_1 P1WRKDY1 P1WRKOT1 P1LOK_1 P1DO1_1 P1DO2_1 P1DO3_1 P1DO4_1 P1DO5_1 P1DO6_1 P1DO7_1 P1DOW 1	P1 EMQ020 PERS 1 HAD PAID JOB LAST WEEK P1 EMQ030 IF PERS 1 ON LEAVE PAST WEEK P1 EMQ040 PERSON 1 NUMBER OF CURR JOBS P1 EMQ050 PERSON 1 HOURS/WK AT ALL JOBS P1 EMQ055 PERSON 1 WORKS DAY SHIFT P1 EMQ056 PERSON 1 WORKS OTHER HOURS P1 EMQ060 PERS 1 SOUGHT JOB LAST 4 WEEKS P1 EMQ070 PERS 1 CHKD W/PUB EMPL AGNCY P1 EMQ070 PERS 1 CHKD W/PRIV EMP AGNCY P1 EMQ070 PERS 1 CHKD W/FRIENDS & REL P1 EMQ070 PERS 1 CHKD W/FRIENDS & REL P1 EMQ070 PERS 1 PLACED OR ANSWERED ADS P1 EMQ070 PERS 1 READ WANT ADS P1 EMQ0700S PERS 1 DID SOMETHING ELSE P1 EMQ080 WHAT PERSON 1 DOING LAST WEEK

Table 7-1.Pointers to parent figure questions: School year 2010–11

See note at end of table.

Person pointe	r	Interview item	
P1EMPP2	P1 EMQ020-100 PERSON 2 ROSTER NUMBER	P1TAK_2 P1PAY_2 P1VAC_2 P1JOB_2 P1HRS_2 P1WRKDY2 P1WRKOT2	P1 EMQ100 PERS 2 COULD TAKE JOB LAST WEEK P1 EMQ020 PERS 2 HAD PAID JOB LAST WEEK P1 EMQ030 IF PERS 2 ON LEAVE PAST WEEK P1 EMQ040 PERSON 2 NUMBER OF CURR JOBS P1 EMQ050 PERSON 2 HOURS/WK AT ALL JOBS P1 EMQ055 PERSON 2 WORKS DAY SHIFT P1 EMQ056 PERSON 2 WORKS OTHER HOURS
		P1LOK_2 P1DO1_2 P1DO2_2 P1DO3_2 P1DO4_2 P1DO5_2 P1DO6_2 P1DO7_2 P1DOV_2	P1 EMQ060 PERS 2 SOUGHT JOB LAST 4 WEEKS P1 EMQ070 PERS 2 CHKD W/PUB EMPL AGNCY P1 EMQ070 PERS 2 CHKD W/PRIV EMP AGNCY P1 EMQ070 PERS 2 CHKD W/EMPLOYR DIRECTLY P1 EMQ070 PERS 2 CHKD W/FRIENDS & REL P1 EMQ070 PERS 2 PLACED OR ANSWERED ADS P1 EMQ070 PERS 2 READ WANT ADS P1 EMQ070OS PERS 2 DID SOMETHING ELSE P1 EMQ080 WHAT PERSON 2 DOING LAST WEEK
P2EDUP1	P1 FSQ221–222 EDUC QUESTIONS PERSON 1 POINTER	P2HIG_1 P2HIS_1	P2 FSQ221 PERS 1 HIGHEST EDUCATION LEVEL P2 FSQ222 PERS 1 DIPLOMA/GED
P2EDUP2	P1 FSQ221–222 EDUC QUESTIONS PERSON 2 POINTER	P2HIG_2 P2HIS_2	P2 FSQ221 PERS 2 HIGHEST EDUCATION LEVEL P2 FSQ222 PERS 2 DIPLOMA/GED

 Table 7-1.
 Pointers to parent figure questions: School year 2010–11—Continued

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), fall 2010 and spring 2011.

## 7.5.3.4 Parent Demographic Variables (X1PAR1AGE, X2PAR1AGE, X1PAR2AGE, X2PAR2AGE, X1PAR1RAC, X2PAR1RAC, X1PAR2RAC, X2PAR2RAC)

X1PAR1AGE and X2PAR1AGE are the composite variables for the age of the first parent from the household roster, and X1PAR2AGE and X2PAR2AGE are the composite variables for the age of the second parent from the household roster.<sup>36</sup> The ages of all household members were reported by respondents in either the fall or spring parent interview, depending on when each person was first recorded as a household member. For information about how the first and second parents were selected for these and other parent variables, see section 7.5.3.3 above.

The composites for race/ethnicity for the parent/guardians were derived in the same way as those for the child, except that there is not a variable that supplements parent-reported race/ethnicity with

<sup>&</sup>lt;sup>36</sup> These variables are a combination of P1HDAGE and P1HMAGE, and P2HDAGE and P2HMAGE in the ECLS-K.

FMS data as was done for children. All data on parent race/ethnicity come from the parent interview. Race/ethnicity for parents is provided in the data file as categorical race/ethnicity composites for both fall and spring (X1PAR1RAC and X2PAR1RAC for the first parent in the household and X1PAR2RAC and X2PAR2RAC for the second parent).<sup>37</sup> Race and ethnicity were collected only once for each parent/guardian. If race and ethnicity were collected in fall 2010, they were not collected again in spring 2011 unless data were missing (refused or don't know), inadvertently collected twice,<sup>38</sup> or there were new parents/guardians in the household.

Respondents were allowed to indicate that they, and the other parent figure when applicable, were Hispanic or Latino, and whether they belonged to one or more of the five race categories (White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander).<sup>39</sup> From these responses, a person's race/ethnicity was classified into eight mutually exclusive categories. A person's race/ethnicity was classified as "more than one race, not Hispanic" if more than one race was specified and the answer to the question about being Hispanic or Latino was 2 (no). A person's race/ethnicity was classified as "Hispanic, race specified" if the answer to the question about being Hispanic or Latino was 1 (yes) and at least one race was indicated in the question about race. If a person was Hispanic or Latino, but a race was not indicated, a person's race/ethnicity was classified as "Hispanic; no race specified." The remaining race/ethnicity categories (White, non-Hispanic; Black or African-American, non-Hispanic; Asian, non-Hispanic; Native Hawaiian or Other Pacific Islander; non-Hispanic; and American Indian or Alaska Native, non-Hispanic) were coded according to the person's race. All answers to the question about being Hispanic or Latino was -7 or -8 (refused, don't know), race/ethnicity was coded -9 (not ascertained).

Parent race/ethnicity was obtained for all parents and spouses of respondent parents but may or may not have been collected for a parent's boyfriend or girlfriend. For example, in a family with a birth mother and stepfather, the race/ethnicity of both parents was obtained. However, in a family with a birth

<sup>&</sup>lt;sup>37</sup> These variables are a combination of P1HDRACE and P1HMRACE, and P2HDRACE and P2HMRACE in the ECLS-K.

<sup>&</sup>lt;sup>38</sup> There were a few cases for which race and ethnicity were asked in both fall 2010 and spring 2011. If there was missing information in one round of the study, but not the other, the round that had nonmissing information was used for the composite. In two other cases (10007781 and 10012950), race and ethnicity were asked twice for the same parent, because that parent was listed twice during the enumeration of the household members, and race was reported differently in each instance. These cases were reviewed and the composite was set based on an assessment of the responses.

<sup>&</sup>lt;sup>39</sup> In the ECLS-K, there was an "other" category for race. In the ECLS-K:2011, the "other" category was not included as a response option.

mother and her boyfriend, the race/ethnicity of the mother was obtained but that of the boyfriend was not unless he was the respondent.<sup>40</sup>

#### 7.5.3.5 Parent Education Variables (X12PAR1ED\_I, X12PAR2ED\_I)

There are two parent education composites on the file: X12PAR1ED I (first parent's highest level of education), and X12PAR2ED I (second parent's highest level of education).<sup>41</sup> The composites are based on the fall 2010 or spring 2011 reports of the parent's highest education level (P1HIG 1, P1HIG 2, P2HIG 1, P2HIG 2) and whether the parent had a high school degree or its equivalent, such as a GED (P1HIS 1, P1HIS 2, P2HIS 1, P2HIS 2). If the highest education level reported for a parent was in grades 1 through 12 (e.g., P1HIG 1=11) and the parent had a high school degree or its equivalent (e.g., P1HIS 1= 1 or 2), or if the highest education level was 13 (high school equivalent/GED) or 14 (high school diploma), then the composite is coded as 3 (high school diploma or equivalent). Otherwise, the education composites are coded according to the value of the highest education level even if the value of the variable for whether the parent had a high school degree or its equivalent was missing. If the highest education level was missing, but the parent was reported to have a high school degree or its equivalent, the composite was coded as 3 (high school diploma/equivalent). Some codes on the highest education question were grouped together in the composite categories. Both values of "vocational/technical after high school, but no vocational/technical diploma" and "vocational technical program after high school diploma" (e.g., P1HIG 1=15 or 16) were coded as 4 (vocational/technical program). Values of "some college, but no degree" and "associate's degree" (P1HIG 1=17 or 18) were coded as 5 (some college). Values of "doctorate degree" and "professional degrees after a bachelor's degree" (e.g., P1HIG 1=22 or23) were coded as 9 (doctorate or professional degree).

The variables reflect the education level of both parent (birth, adoptive, step-, and foster) and nonparent guardians identified in X1IDP1, X1IDP2, X2IDP1, and X2IDP2. For example, if the child did not live in a household with his or her parents and lived with a nonparent guardian, the education of the guardian and his or her spouse or partner was used in the creation of the composites if the guardian was

<sup>&</sup>lt;sup>40</sup> There are 7 cases where a household member has valid race/ethnicity data but does not meet the design criteria for collecting this information (CHILDID=10004013, 10004059, 10010110, 10017053, 10004449, 10015181, 10017209). This inconsistency resulted from post-data collection editing. Since each of the cases involves the spouse of the respondent (who is a parent figure), the race data were retained because they were used in the parent composites and statistical processing. Additionally, there are 9 cases for which a father/male guardian was identified after data collection (CHILDID=10015236, 10015552, 10011399, 10016048, 10001140, 10002341, 10004530, 10006902, 10009138). Because no father/male guardian was identified during the interview, these cases followed the skip specifications for households with no father/male guardian and were not asked questions about the father, including fathers' race/ethnicity. The race and ethnicity items for these cases are set to -9.

<sup>&</sup>lt;sup>41</sup> These variables are a combination of WKMOMED and WKDADED in the ECLS-K.

specified as such during the parent interview or if the guardian was the respondent or the respondent's spouse and there were no other parent figures in the household. This composite is a cross-round variable that uses parent education either from parents in the household at the time of the fall interview or, if there was no fall interview conducted, parent education of the parents in the household at the time of the spring interview. As described in section 7.5.3.8, education data are imputed if they are missing from the parent interview. In a small number of cases, the second parent was identified after imputation took place and the cases are missing on X12PAR2ED as a result of this problem (10017525, 10016769, 10017336, 10001179, 10012475). Also, cases without information on household composition are set to missing (-9) on X12PAR2ED, rather than being imputed.

Because education data were not collected for any new parents who joined the household in the spring if there had been a parent interview in the fall, in cases where a fall interview was conducted, the education composite indicates the education of the parents present in the fall rather than that of any new parents who may have been present in the spring. However, if there was one parent in the household in the fall and two parents in the household in the spring, the second parent's education was imputed. If a parent interview was completed only in the spring, the education composite indicates the education of the parents in the household at the time of the spring interview. In cases where the household parent figures changed between fall 2010 and spring 2011, the data in the composite may not actually pertain to the parent figure in spring 2011. For example, parent education collected in the fall would pertain to a father figure who was in the home in the fall and not to a new father figure, if applicable, who was in the home in the spring. Education for the father figure in the fall would be nonmissing, and education for the new father figure in the spring would not have been collected. Users can look at changes in the roster and the time point at which the data were collected to determine for which parent figure (fall or spring) the data were collected.

# 7.5.3.6 Parent Occupation Variables (X1PAR1EMP, X1PAR2EMP, X1PAR1OCC\_I, X1PAR2OCC\_I, X1PAR1SCR\_I, X1PAR2SCR\_I)

Several composites can be used to describe parents' employment, their occupations, and the prestige of their occupations. X1PAR1EMP and X1PAR2EMP describe the work status of each of the parents.<sup>42</sup> To code X1PAR1EMP for parent 1, the parent identification variable for parent 1, X1IDP1, is matched to the pointer variable for employment data, P1EMPP1, to obtain the employment data that

<sup>&</sup>lt;sup>42</sup> These variables are a combination of P1HDEMP and P1HMEMP in the ECLS-K.

corresponds to parent 1. First, the hours that the parent worked (e.g., P1HRS 1 for the person who is the first subject of the questions about employment) are examined. If parent 1 worked 35 or more hours per week, X1PAR1EMP is coded as 1 (35 hours or more per week). If parent 1 worked less than 35 hours per week, X1PAR1EMP is coded as 2 (less than 35 hours per week). Otherwise, if parent 1 was working for pay (P1PAY 1=1) or was on vacation (P1VAC 1=1), X1PAR1EMP is coded as -9 (not ascertained). If parent 1 was actively looking for work (P1LOK 1=1) and did one of five activities to look for work (P1DO1 1=1 (checked with a public employment agency); P1DO2 1=1 (checked with a private employment agency); P1DO3 1=1 (checked with an employer directly or sent a resume to an employer); P1DO4 1=1 (checked with friends or relatives); or P1DO5 1=1 (placed or answered ads/sent a resume related to an ad)), then X1PAR1EMP is coded as 3 (looking for work). If parent 1 was not working for pay, not on vacation, and not looking for work (P1PAY 1=2 AND P1VAC 1=2 AND P1LOK 1=2), or if parent 1 was looking for work (P1LOK 1=1) and the variables for the five activities to actively look for work (described above) were all coded 2 (no), X1PAR1EMP is coded as 4 (not in the labor force).<sup>43</sup> Otherwise, if parent 1 was looking for work, but the variables for the five activities to actively look for work (described above) were all coded -7 (refused), -8 (don't know), or -9 (not ascertained), or variables about working for pay, being on vacation, hours worked, looking for work, or what the parent did to look for work were all coded -7 (refused), -8 (don't know), or -9 (not ascertained), then X1PAR1EMP is coded as -9 (not ascertained). X1PAR2EMP is created in the same was as X1PAR1EMP, but is for parent 2.

The composite variables about parent occupation, X1PAR1OCC\_I and X1PAR2OCC\_I, are coded based on information collected through questions in the parent interview about the name of the parent's employer, the type of business or industry, job title, and the most important activities or duties done for the job (EMQ120, EMQ130, EMQ140, EMQ150).<sup>44</sup> These variables are not on the file, but are coded using the *Manual for Coding Industries and Occupations* (U.S. Department of Education, National Center for Education Statistics 1999). This coding manual was created for the National Household Education Surveys Program and uses an aggregated version of occupation codes. There are 22 occupation codes in this coding scheme. If an occupation cannot be coded using this manual, the *Standard Occupational Classification Manual—1980* (U.S. Department of Commerce, Office of Federal Statistical Policy and Planning, 1980) is used to identify the appropriate code. Both of these manuals use an

<sup>&</sup>lt;sup>43</sup> Because some persons were not looking for work according to the five categories described above, even though it was reported that a parent was looking for work (P1LOK\_1=1), the parent is coded as not in the labor force (X1PAR1EMP=4) rather than as looking for work (X1PAR1EMP=3). If a parent was reported as looking for work (P1LOK\_1=1), the questions about the parent's last occupation were asked. There are 127 cases with occupation data that are categorized as X1PAR1EMP = 4 (not in the labor force), and 85 cases that have X1PAR2EMP = 4 (not in the labor force) because they indicated that all they were doing to look for work was looking at/reading want ads or some "other" activity that did not qualify them to be classified as looking for work.

<sup>&</sup>lt;sup>44</sup> These variables are a combination of P1MOMOCC and P1DADOCC in the ECLS-K.

expanded coding system and at the same time are directly related to the much more condensed NHES coding scheme. The occupation codes are shown in exhibit 7-5.

#### Exhibit 7-5. Industry and occupation codes used in the ECLS-K:2011

#### 1. Executive, Administrative, and Managerial Occupations

This category includes senior-level and middle management occupations and occupations that directly support management. Senior-level managers are persons concerned with policymaking, planning, staffing, directing, and/or controlling activities. Middle managers include persons who plan, organize, or direct and/or control activities at the operational level. Workers in this category are not directly concerned with the fabrication of products or with the provision of services. Other officials and administrators include consultants, library directors, custom house builders, and location managers. Legislators are also included in this category.

#### 2. Engineers, Surveyors, and Architects

• This category includes occupations concerned with applying principles of architecture and engineering in the design and construction of buildings, equipment and processing systems, highways and roads, and land utilization.

#### 3. Natural Scientists and Mathematicians

This category includes those engaged primarily in the application of scientific principles to research and development. Natural scientists are those in the physical sciences (e.g., chemistry, physics) and the life sciences (e.g., biology, agriculture, medicine). In addition, this category includes those in computer science, mathematics (including statistics), and operations research.

#### 4. Social Scientists, Social Workers, Religious Workers, and Lawyers

• This category includes occupations concerned with the social needs of people and with basic and applied research in the social sciences.

#### 5. Teachers: College, University, and Other Postsecondary Institution; Counselors, Librarians, and Archivists

• This category includes those who teach at higher education institutions and at other postsecondary (after high school) institutions, such as vocational institutes. In addition, vocational and educational counselors, librarians, and archivists are included here.

Exhibit 7-5. Industry and occupation codes used in the ECLS-K:2011—Continued

#### 6. Teachers, except Postsecondary Institution

This category includes prekindergarten and kindergarten teachers, elementary and secondary teachers, special education teachers, instructional coordinators, and adult education teachers (outside postsecondary).

#### 7. Physicians, Dentists, and Veterinarians

This category includes health care professionals who diagnose and treat patients. In addition to physicians, dentists, and veterinarians, this category includes optometrists, podiatrists, and other diagnosing and treating professionals, such as chiropractors, hypnotherapists, and acupuncturists.

### 8. Registered Nurses, Pharmacists, Dieticians, Therapists, and Physician's Assistants

This category includes occupations concerned with the maintenance of health, the prevention of illness and the care of the ill through the provision and supervision of nursing care; compounding drugs, planning food service or nutritional programs; providing assistance to physicians; and the provision of therapy and treatment as directed by physicians.

#### 9. Writers, Artists, Entertainers, and Athletes

This category includes occupations concerned with creating and executing artistic works in a personally interpreted manner by painting, sculpturing, drawing, engraving, etching, and other methods; creating designs for products and interior decorations; designing and illustrating books, magazines, and other publications; writing; still, motion picture, and television photography/filming; producing, directing, staging, acting, dancing, singing in entertainment; and participating in sports and athletics as a competitor or player and administering and directing athletic programs.

#### 10. Health Technologists and Technicians

This category includes occupations concerned with providing technical assistance in the provision of health care. For example, clinical laboratory technologists and technicians, dental hygienists, radiologic technicians, licensed practical nurses (LPNs), and other health technologists are included here.

#### 11. Technologists and Technicians, except Health

• This category includes those providing technical assistance in engineering and scientific research, development, testing, and related activities, as well as operating and programming technical equipment and systems.

#### Exhibit 7-5. Industry and occupation codes used in the ECLS-K:2011—Continued

#### 12. Marketing and Sales Occupations

• This category includes occupations involving selling goods or services, purchasing commodities and property for resale, and conducting wholesale or retail business.

#### 13. Administrative Support Occupations, including Clerks

This category includes occupations involving preparing, transcribing, transferring, systematizing, and preserving written communications and records; collecting accounts; gathering and distributing information; operating office machines and data processing equipment; operating switchboards; distributing mail and messages; and other support and clerical duties such as bank teller, data entry keyer, etc.

#### 14. Service Occupations

This category includes occupations providing personal and protective services to individuals, and current maintenance and cleaning for building and residences. Some examples include food service, health service (e.g., aides or assistants), cleaning services other than household, and personal services.

#### 15. Agricultural, Forestry, and Fishing Occupations

This category is concerned with the production, propagation (breeding/growing), gathering, and catching of animals, animal products, and plant products (timber, crop, and ornamental); the provision of services associated with agricultural production; and game farms, fisheries, and wildlife conservation. "Other agricultural and related occupations" include occupations concerned with the production and propagation of animals, animal products, plants, and products (crops and ornamental).

#### 16. Mechanics and Repairers

Mechanics and repairers are persons who do adjustment, maintenance, part replacement, and repair of tools, equipment, and machines. Installation may be included if it is usually done in conjunction with other duties of the repairers.

#### **17.** Construction and Extractive Occupations

This category includes occupations that normally are performed at a specific site, which will change over time, in contrast to production workers, where the work is usually at a fixed location. Construction workers include those in overall construction, brick masons, stonemasons, carpenters, electricians, drywall installers, paperhangers and painters, etc. Extractive occupations include oil well drillers, mining machine operators, and so on.

#### Exhibit 7-5. Industry and occupation codes used in the ECLS-K:2011—Continued

#### **18.** Precision Production Occupations

Precision production includes occupations concerned with performing production tasks that require a high degree of precision or attainment of rigid specification and operating plants or large systems. Included in this category are tool and die makers, pattern and model makers, machinists, jewelers, engravers, and so on. Also included are some food-related workers including butchers and bakers. Plant and system operators include water and sewage, gas, power, chemical, petroleum, and other plant or system operators.

#### **19. Production Working Occupations**

• This category includes occupations concerned with setting up, operating, and tending of machines and hand production work, usually in a factory or other fixed place of business.

#### 20. Transportation and Material Moving Occupations

• This category includes occupations concerned with operating and controlling equipment used to facilitate the movement of people or materials and the supervising of those workers.

#### 21. Handlers, Equipment Cleaners, Helpers, and Laborers

This category includes occupations that involve helping other workers and performing routine nonmachine tasks. A wide variety of helpers, handlers, etc., are included in this category. Examples include construction laborers, freight, stock, and material movers, garage and service station-related occupations, parking lot attendants, and vehicle washers and equipment cleaners.

#### 22. Unemployed, Retired, Disabled, or Unclassified Workers

■ This category includes persons who are unemployed, have retired from the work force, or are disabled. It also includes unclassified occupations that do not fit into the categories above (e.g., occupations that are strictly military, such as "tank crew member" and "infantryman").

The occupation variables X1PAR1OCC\_I and X1PAR2OCC\_I were recoded to reflect the average of the 1989 General Social Survey (GSS) prestige scores. The variables X1PAR1SCR\_I and X1PAR2SCR\_I describe the prestige scores associated with each coded occupation. Although the GSS prestige scores are from 1989, they are still being used by the current GSS survey and matched to 1980 census codes.<sup>45</sup> Because these prestige scores were also used for the ECLS-K 1998–99 cohort, they will

<sup>&</sup>lt;sup>45</sup> New technology jobs that came into existence since 1989 were appropriately coded. For example, "website developer" was included in the "Other technologist/technician (except health)"; "website sales" was in "Marketing/Sales"; and "run web printer" was in "Other production occupation."

allow for comparisons to the ECLS-K. Table 7-2 provides details on how occupations were assigned prestige score values (X1PAR1SCR\_I, X1PAR2SCR\_I).

As described in section 7.5.3.8, occupations were imputed if they were missing from the parent interview. If the parent's occupation was either -1 (No Occupation) or 22 (Unemployed or Retired) on X1PAR1OCC\_I or X1PAR2OCC\_I, the assignment of a prestige score depended upon X1PAR1EMP or X1PAR2EMP (employment status). If, for example, X1PAR1EMP was missing, it was imputed; if the parent was imputed as working, an occupation was also imputed and the appropriate prestige score was assigned. Missing occupations were not imputed for persons who were looking for work. During data preparation, it was decided to assign values of -9 (not ascertained) for the occupation and prestige variables for these parents, since persons looking for work are in the labor force. Additionally, cases in which a parent was identified during data editing and after imputation was completed, as well as cases without information on household composition, are set to missing (-9) on the occupation variables, rather than being imputed.

The imputation flag variable IFX1PAR1SCR reflects imputation of the occupation (X1PAR1OCC\_I) and resultant coding of prestige (X1PAR1SCR\_I) for parent 1. The flag IFX1PAR2SCR reflects imputation of the occupation (X1PAR2OCC\_I) and resultant coding of prestige (X1PAR2SCR\_I) for parent 2.

Occupation category	Prestige score
1 Executive, Admin, Managerial Occupation	53.5
2 Engineers, Surveyors, & Architects	64.89
3 Natural Scientists & Mathematicians	62.87
4 Social Scientist/Workers/ Lawyers	59
5 Teachers; College, Postsecondary Counselors, Librarians;	72.1
6 Teacher, Except Postsecondary	63.43
7 Physicians, Dentists, Veterinarians	77.5
8 Registered Nurses, Pharmacists	61.56
9 Writers, Artists, Entertainers, Athletes	52.54
10 Health Technologists & Technicians	57.83
11 Technologists, Except Health	48.69
12 Marketing & Sales Occupation	35.78
13 Administrative Support, Including Clerk	38.18
14 Service Occupations	34.95
15 Agriculture, Forestry, Fishing Occupations	35.63
16 Mechanics & Repairs	39.18
17 Construction & Extractive Occupations	39.2
18 Precision Production Occupation	37.67
19 Production Working Occupation	33.42
20 Transportation, Material Moving	35.92
21 Handler, Equip, Cleaner, Helpers, Labor	29.6
22: Unemployed/Retired (If a person was on leave from a job or	Assignment of the
unemployed and actively looking for work, he or she was asked	prestige score depended
the occupation questions. Category 22 was used only if a	on the value of
respondent reported "unemployed "or "retired" as an answer for	X1PAR1EMP or
occupation rather than providing an actual occupation, thus it	X1PAR2EMP for parent
should not be used as an indication of current employment	1 or parent 2, respectively
status.)	
-1 (No occupation)	Assignment of the
	prestige score depended
	on the value of
	X1PAR1EMP or
	X1PAR2EMP for parent
	1 or parent 2, respectively

 Table 7-2.
 Occupation categories and assigned prestige scores

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2010.

#### 7.5.3.7 Household Income and Poverty (X2INCCAT\_I, X2POVTY)

Household income data were collected in spring 2011. All parents were asked to report income by broad range (\$25,000 or less or more than \$25,000) and by detailed range (table 7-3).<sup>46</sup>

Detailed income range	Total household income
1	\$5,000 or less
2	\$5,001 to \$10,000
3	\$10,001 to \$15,000
4	\$15,001 to \$20,000
5	\$20,001 to \$25,000
6	\$25,001 to \$30,000
7	\$30,001 to \$35,000
8	\$35,001 to \$40,000
9	\$40,001 to \$45,000
10	\$45,001 to \$50,000
11	\$50,001 to \$55,000
12	\$55,001 to \$60,000
13	\$60,001 to \$65,000
14	\$65,001 to \$70,000
15	\$70,001 to \$75,000
16	\$75,001 to \$100,000
17	\$100,001 to \$200,000
18	\$200,001 or more

 Table 7-3.
 Detailed income range categories in the parent interview: Spring 2011

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), spring 2011.

The composite X2INCCAT\_I was created from the detailed range. If data for the broad range variable (P2HILOW) or one of the detailed range variables (P2INCLOW, P2INCHIG) were -7 (refused), -8 (don't know), or -9 (not ascertained), then income information is missing and imputed to obtain X2INCCAT\_I. Please see section 7.5.3.8 for a description of the imputation procedures used for X2INCCAT\_I.<sup>47</sup>

<sup>&</sup>lt;sup>46</sup> Starting at category 9 of the detailed income range, the categories for the income variable in the ECLS-K:2011 are different from those used in the ECLS-K. More narrow ranges of income were used at higher income levels in the ECLS-K:2011 in order to distinguish 200 percent of poverty for a follow-up question about exact income.
<sup>47</sup> An exception to the imputation procedure was made for 81 cases that did not respond to the fall 2010 parent interview and completed the SPQ

<sup>&</sup>lt;sup>47</sup> An exception to the imputation procedure was made for 81 cases that did not respond to the fall 2010 parent interview and completed the SPQ section of the spring parent interview (which included questions only asked of fall nonrespondents) but did not complete the FSQ section (family structure questions) in the spring. Due to the absence of the household roster and information about the child's household and parents, X2INCCAT\_I was set to missing (-9).

When parent respondents reported a household income indicating the household was close to or lower than 200 percent of the U.S. Census Bureau poverty threshold for a household of its size, the respondents were asked to report household income to the nearest \$1,000 (referred to as exact income).<sup>48</sup> Table 7-4 shows the reported income and household size for households near 200 percent of the poverty threshold. The variable for exact income (P2TINCTH), the detailed income range variable (X2INCCAT\_I), and the household total (X2HTOTAL) were used to create a household-level poverty variable (X2POVTY).<sup>49</sup> Parent report of exact household income was used to calculate the poverty composite unless it was missing or not asked, in which case the detailed income category was used. When the detailed income category was used, the case was assigned the midpoint of the detailed income range.

Table 7-4.Criteria for reporting income to the nearest \$1,000 in the spring parent interview: Spring<br/>2011

Household size	ECLS-K:2011 income categories	200 percent of weighted average preliminary thresholds for 2010 <sup>1,2</sup>
Two	Less than or equal to \$30,000	\$28,440 or less
Three	Less than or equal to \$35,000	\$34,756 or less
Four	Less than or equal to \$45,000	\$44,628 or less
Five	Less than or equal to \$55,000	\$52,834 or less
Six	Less than or equal to \$60,000	\$59,774 or less
Seven	Less than or equal to \$70,000	\$67,838 or less
Eight <sup>2</sup>	Less than or equal to \$75,000	\$75,726 or less
Nine or more	Less than or equal to \$100,000	\$90,188 or less

<sup>1</sup>U.S. Census Bureau, Current Population Survey. Preliminary Poverty Thresholds for 2010 by Size of Family and Number of Related Children Under 18 Years Old, retrieved 5/4/2011 from <u>http://www.census.gov/hhes/www/poverty/data/threshld/index.html.</u>

<sup>2</sup>Preliminary poverty thresholds for 2010 were very similar to final poverty thresholds for 2010. Only four cases would have different values if the final 2010 thresholds had been used (10001336, 10003993, 10007340, and 10016336). At the time that the spring 2011 parent interview was finalized, the most updated poverty thresholds available were the weighted 2009 poverty thresholds. Preliminary 2010 poverty thresholds were available at the time the poverty composite variable X2POVTY was computed. Although the two thresholds were somewhat different, all households that were asked exact income using the 2009 thresholds would have been asked for exact income using the 2010 thresholds, with one exception. The threshold for 200 percent of poverty in a household with eight persons was \$74,504 in 2009 and \$75,726 in 2010. The skip in the parent interview directed exact income to be collected if a household of eight had a reported income of \$75,000 or less. Thus, exact income would not have been collected for someone in a household of eight who reported an income of \$75,001 to \$100,000. This potentially affected 13 cases that were coded as category 3 (at or above 200 percent of the poverty threshold) when they may have been in category 2 (at or above the poverty threshold, below 200 percent of the poverty threshold). The income category for those cases was \$75,001 to \$100,000, a wide enough range that it is possible that incomes for these 13 cases were actually above the threshold of \$75,726.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), spring 2011.

Total household income reported in the parent interview was compared to preliminary census poverty thresholds for 2010, which vary by household size. Table 7-5 shows the preliminary

 $<sup>^{48}</sup>$  I n the CAPI program, exact income was asked for the following conditions: (NUMBER IN HH = 1 AND PAQ.110 < 6) OR

<sup>(</sup>NUMBER IN HH = 2 AND PAQ.110 < 7) OR (NUMBER IN HH = 3 AND PAQ.110 < 8) OR (NUMBER IN HH = 4 AND PAQ.110 < 10) OR (NUMBER IN HH = 5 AND PAQ.110 < 12) OR (NUMBER IN HH = 6 AND PAQ.110 < 13) OR (NUMBER IN HH = 7 AND PAQ.110 < 15) OR (NUMBER IN HH = 8 AND PAQ.110 < 16) OR (NUMBER IN HH = 9 AND PAQ.110 < 17).

<sup>&</sup>lt;sup>49</sup> The ECLS-K:2011 provides an approximate but not exact measure of poverty.

weighted poverty thresholds from the U.S. Census Bureau that were used to determine household poverty status in the base-year data collection. Households with a total income that fell below the appropriate threshold were classified as category 1 in the composite. Households with a total income that was at or above the poverty threshold but below 200 percent of the poverty threshold were classified as category 2 in the composite. Households with a total income that was at or above 200 percent of the poverty threshold were categorized as category 3 in the composite.<sup>50</sup> For example, if a household contained two members and the household income was lower than \$14,220, the household was considered to be below the poverty threshold and would have a value of 1 for the composite. If a household with two members had an income of \$14,220 or more, but less than \$28,440 (200 percent of the poverty threshold for a household of two), the composite would have a value of 2. If a household with two members had an income of \$28,440 or more, the composite would have a value of 3. If the detailed income range was used instead of exact income and the midpoint of the range was below the poverty threshold for the household size, then the household was classified as "below the poverty threshold." If the midpoint of the detailed income range fell at or above the poverty threshold for the household size, then the case was classified as "at or above the poverty threshold, but below 200 percent of the poverty threshold" or "at or above 200 percent of the poverty threshold."

		Census weighted average
Household size	ECLS-K:2011 income categories	preliminary thresholds for 2010 <sup>1</sup>
Two	Less than or equal to \$15,000	\$14,220
Three	Less than or equal to \$15,000	\$17,378
Four	Less than or equal to \$20,000	\$22,314
Five	Less than or equal to \$25,000	\$26,417
Six	Less than or equal to \$30,000	\$29,887
Seven	Less than or equal to \$35,000	\$33,919
Eight	Less than or equal to \$40,000	\$37,863
Nine or more	Less than or equal to \$50,000	\$45,094

 Table 7-5.
 ECLS-K:2011 and preliminary census poverty thresholds for 2010: Spring 2011

<sup>1</sup> U.S. Census Bureau, Current Population Survey. Preliminary Poverty Thresholds for 2010 by Size of Family and Number of Related Children Under 18 Years Old, retrieved 5/4/2011 from <u>http://www.census.gov/hhes/www/poverty/data/threshld/index.html</u>. SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of

2010-11 (ECLS-K:2011), spring 2011.

<sup>&</sup>lt;sup>50</sup> In the ECLS-K:2011, there are three categories in the poverty composite rather than two categories for "below poverty threshold" and "at or above poverty threshold" as there were in the ECLS-K.

#### 7.5.3.8 Socioeconomic Status (X12SESL)

Socioeconomic status (SES) was computed at the household level using data from parents who completed the parent interview in fall 2010 or spring 2011. The SES variable reflects the socioeconomic status of the household at the time of data collection. The five components used to create the SES were as follows:

- Parent 1/guardian's education;
- Parent 2/guardian's education;
- Parent 1/guardian's occupational prestige score;
- Parent 2/guardian's occupational prestige score; and
- Household income.

The information on these characteristics was collected as follows:

- **Parent/guardian's education.** The education data were collected in fall 2010. In spring 2011, education information was collected only for fall 2010 nonrespondents.
- Parent/guardian's occupation. Parent/guardian occupation data were collected in fall 2010. These data were not collected in the spring for fall 2010 nonrespondents.
- **Household income**. Household income data were collected in spring 2011. All parents were asked to report income by broad range (\$25,000 or less or more than \$25,000) and by detailed range.

When parent respondents reported a household income indicating the household was close to or lower than 200 percent of the U.S. Census Bureau poverty threshold for a household of its size, the respondents were asked to report household income to the nearest \$1,000 (referred to as exact income). Because not all households were asked to report their exact income, the midpoint of the detailed income range was used to compute the SES composite.

Not all parents completed the parent interview; among those who did, not all responded to every question. Therefore, there were missing values for some of the components of the SES composite variable. The numbers of cases with missing data for each of the SES components are presented in table 7-6.

Variable	Number missing	Percent
Parent 1's education	316	2.0
Parent 2's education	483	3.0
Parent 1's occupation	293	1.9
Parent 2's occupation	501	3.1
Detailed income range	2,397	15.3

 Table 7-6.
 Missing data for SES source variables, kindergarten year: School year 2010–11

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), fall 2010 and spring 2011.

Because not all parent respondents provided complete education, occupation, and household income information, it was necessary to impute missing values for the SES components before computing the SES composite.<sup>51</sup> Imputation was done separately for each component using the hot deck method. In this method, similar respondents and nonrespondents are grouped or assigned to "imputation cells," and a respondent's value is randomly "donated" to a nonrespondent within the cells. Cells were defined for each imputation by characteristics related to the variable being imputed such as geographic region, urbanicity, household type, age, and race.

Missing values of the components of the SES can be the result of item nonresponse or changes in the household composition. For the ECLS-K:2011, education and occupation data were collected in fall 2010. In spring 2011, income data were collected.

In cases with a change in parents (either one or both) in the household between fall 2010 and spring 2011, data from fall variables were used for the purpose of creating the SES composite if there was a parent interview completed in the fall. For example, a household may have had two different mothers in the base year, one at each data collection point. Questions about the mother's occupation and education would have been asked in fall 2010, but questions about a new mother's occupation and education would not have been asked in spring 2011. For households with a different parent in the spring, the fall occupation and education data were used, in the composite. For households with a fall parent who is no longer in the home in the spring and in which there is no new parent in the spring, the occupation and education and education is no longer in the fall were used, and new values were not imputed. If there was one parent in the fall and there were two parents in the spring, the second parent's values were imputed. There are

<sup>&</sup>lt;sup>51</sup> An exception to the imputation procedure was made for the 83 cases that do not have a household roster. These 83 cases include 81 cases that did not respond to the fall kindergarten parent interview and completed the SPQ section of the spring parent interview (which included questions only asked of fall nonrespondents) but did not complete the FSQ section (family structure questions) in the spring. In addition, there are 2 cases that do not have a roster because of a technical problem in the interview program that was corrected early in data collection, but after these interviews were completed. Due to the absence of the household roster and information about the child's household and parents, X12SESL was set to missing (-9).

218 cases that are children who, in the fall, did not have a second parent figure in the household but did have a second parent in the spring. Because these cases were fall respondents to the parent interview, education questions were not asked again and there were missing data about the second parent in the in the spring. For these cases, education values for the second parent were imputed.

For missing values that were imputed, a value reported by a respondent for a particular component (education, occupation, household income category) was assigned or "donated" to a "similar" person who failed to respond to that question. A "similar" person is one who has the same characteristic as the donor; these characteristics are demographic characteristics chosen to form imputation cells. Auxiliary information known for both donors and nonrespondents were used to form imputation cells. The imputed value for a case with a missing value was taken from a randomly selected donor among the respondents within the cell.

For each SES component, imputation cells were created using demographic characteristics that are the best predictors of the component. Characteristics such as census region, school type (public/Catholic/non-Catholic religious/other private), school locale (city/suburb/town/rural), household type (female single parent/male single parent/two parents present), parents' race/ethnicity, and parents' age range were used to form the cells. Chi-square automatic interaction detector (CHAID) analyses were used to determine these predictors.

The order of imputation was parent 1's education, parent 2's education, parent 1's labor force status, parent 1's occupation, parent 2's labor force status, parent 2's occupation, detailed income range when the broad income range was known, and detailed income range when the broad income range was not known. Imputation cells for each component to be imputed were created using the other components. For example, education and occupation were used to impute income. In the case of households with two mothers or two fathers, the order of the parent data in the interview was used. In households with a mother and a father, parent 1 is the mother and parent 2 is the father.

The hot deck imputation was implemented as follows:

- For households having two parents present, parent 1's and parent 2's variables were imputed separately.
- Imputed as well as reported values were used to create imputation cells.
- Imputed values were not donated.

 A record was not used as a donor more than once for any particular variable or more than twice overall.

After imputation, the occupation variables were also recoded to reflect the average of the 1989 GSS prestige scores, described in section 7.5.3.6. Occupation was imputed only for those in the labor force. Labor force status was determined by a value of 1 (35 hours or more per week) or 2 (less than 35 hours per week) on the composite X1PAR1EMP or X1PAR2EMP, depending on which parent was being imputed.<sup>52</sup> If a parent was not employed, but reported actively looking for work, the parent's previous occupation was collected and used in the creation of the SES composite. If the parent was not employed and not actively looking for work, an occupation was not collected and was not imputed. Following imputation, all cases had data for each component variable used to calculate SES. The valid data did include the code for -1 (not applicable). When a child lived in a household with only one parent, education and occupation for parent 2 are not applicable. The values of each SES component were then normalized so that the component had a mean of 0 and a standard deviation of 1. In this normalization step, -1 (not applicable) values are treated as missing. This is also known as the *z*-score. For the *h*-th SES component, a *z*-score  $z_h$  for the *i*-th household was computed as

$$z_{hi} = \frac{x_{hi} - \overline{x}_{w}}{sd(\overline{x}_{w})},$$

where

 $x_{hi}$  is the value of the *h*-th SES component for the *i*-th household;

 $\bar{x}_w$  is the weighted mean of  $x_{hi}$ ; and  $sd(\bar{x}_w)$  is the standard deviation of  $\bar{x}_w$ .

Note that where *h* is household income,  $x_{hi}$  is the natural log of the midpoint of the detailed income range.

The SES variable for the *i*-th household will then be computed as

$$SES_i = \frac{\sum_{h=1}^{m} z_{hi}}{m},$$

<sup>&</sup>lt;sup>52</sup> If the value for X1PAR1EMP or X1PAR2EMP for the parent was missing, it was imputed as the first step in the process of imputing occupation and then assigning a prestige score.

where m is the number of components. Note that for households with only one parent present and for parents who are unemployed and not looking for work, retired, or not currently in the labor force, not all the components are defined. In these cases, the SES is the average of the z-scores of the available components.

# 7.5.3.9 Respondent ID and Relationship to Focal Child (X1RESID, X2RESID, X1RESREL, X2RESREL)

The respondent to the parent interview is the person who identifies himself or herself as the household member who knows the most about the child's care, education, and health. X1RESID identifies the person number of the fall 2010 parent interview respondent in the household. Then the relationship variables for the same person number as the respondent (P1REL 1-P1REL 25, P1MOM 1-P1MOM 25, P1DAD 1-P1DAD 25, and P1UNR 1-P1UNR 25) were used to code X1RESREL. If the respondent was a biological mother or father, X1RESREL was coded as 1 (biological mother) or 3 (biological father), respectively. If the respondent was an adoptive, step-, or foster mother or father, or other female or male guardian, or if the respondent was a mother or father but the type of mother or father was coded as -7 (refused) or -8 (don't know), X1RESREL is coded as 2 (other mother type) or 4 (other father type), respectively. If the respondent was a grandparent, aunt, uncle, cousin, sibling, or other relative, X1RESREL is coded as 5 (nonparent relative). If the respondent was a girlfriend or boyfriend of the child's parent or guardian; a daughter or son of the child's parent's partner; other relative of the child's parent's partner; or another nonrelative, X1RESREL is coded as 6 (non-relative). Otherwise, X1RESREL is coded as -9 (not ascertained). X2RESID and X2RESREL are coded the same way as X1RESREL, but with the relationship variables for the respondent in spring 2011 rather than fall 2010.53 Because the interview in spring 2011 asked for the previous round respondent, the respondent in fall 2010 (X1RESID) and spring 2011 (X2RESID) will, in many cases, be the same person.

 $<sup>^{53}</sup>$  There are 83 cases in the kindergarten year data set that lack rosters of household members. All of these cases were nonrespondents to the fall kindergarten parent interview. Of these 83 cases, 81 of them did not respond to the fall kindergarten parent interview and completed the SPQ section of the spring parent interview (which included questions only asked of fall nonrespondents) but did not complete the FSQ section (family structure questions) in the spring. In addition, there are 2 cases that do not have a roster because of a technical problem in the interview program that was corrected early in data collection, but after these interviews were completed. These 83 cases can be easily identified by specifying X2RESID (spring 2011 respondent) = -9. There is also one additional case (10014051) that has X2RESREL=-9 because the case broke off before the relationship question was asked.

# 7.5.3.10 Whether the Child's Biological Mother and Biological Father Were Married at the Time of the Child's Birth (X12MOMAR)

Questions about marital status and the date of marriage were used with the composites for the child's date of birth to create a composite variable X12MOMAR for whether the child's biological mother and father were married at the time of the child's birth.<sup>54</sup> There are four questions in the fall 2010 parent interview about whether the child's biological parents are or were married and, if so, the month and year that the marriage took place. The questions about the month and year of marriage depend on which marriage questions were asked. If the biological parents were married at the time of the parent interview (P1LEGMAR, P1BIOMRY, P1KNOWLE, or P1BIOPAR=1) and the year that the biological parents married (P1MRRYYR if P1LEGMAR=1, P1BIOMYR if P1BIOMRY=1, or P1MDWHY if P1KNOWLE=1 or P1BIOPAR=1) was before the year the child was born (X\_DOBYY), or if the year the biological parents married (P1MRRYYR, P1BIOMYR, P1MDWHY) was the same as the year the child was born (X\_DOBYY), and the month the biological parents married (P1MRRYMO if P1LEGMAR=1, P1BIOMRM if P1BIOMRY=1, P1MDWHY if P1KNOWLE=1) was the same as or before the month the child was born (X\_DOBYY), X12MOMAR is coded as 1 (yes). X12MOMAR is also coded as 1 (yes) if it was reported in the spring 2011 parent interview that the child's biological mother and biological father were married to each other when the child was born (P2BIOMRY=1).

X12MOMAR is coded as -9 (not ascertained) if one of the following conditions is true: the question about whether the biological parents were married (P1LEGMAR) was answered as 1 (yes) or 2 (no), but data were -9 (not ascertained) for questions that followed (P1MRRYYR, P1BIOMRY, P1BIOPAR); data are -9 (not ascertained) for whether the biological parents are married (P1LEGMAR=-9) and data are -9 (not ascertained) for questions that followed (P1MRRYYR, P1BIOMRY, P1BIOMRY, P1BIOMRY, P1BIOPAR); the biological parents were married (P1LEGMAR=1), but data are missing for the month of marriage (P12MRRYMO=-7 (refused), -8 (don't know), or -9 (not ascertained); the biological parents were not married (P1LEGMAR=2), and data are missing about whether the biological parents were married (P1BIOPAR=-7 (refused), -8 (don't know), or -9 (not ascertained)); or the parents were married (P1BIOPAR=1), but the data for the year and month are missing (P1MDWHY and P1MDWHM=-7 (refused), -8 (don't know), or -9 (not ascertained)).

<sup>&</sup>lt;sup>54</sup> WKHMOMAR from the ECLS-K is X12MOMAR in the ECLS-K:2011. In the ECLS-K:2011 composite, there is not a distinction between whether the biological mother is residential at the time of the interview or if she is a nonresident parent.

Otherwise if the year of marriage (P1MRRYYR, P1BIOMYR, or P1MDWHY) was after the child's year of birth (X\_DOBYY), or the year of marriage was the same as the year of the child's birth (P1MRRYYR=X\_DOBYY) and the month of marriage (P1MRRYMO, P1BIOMRM, P1MDWHM) was greater than the child's month of birth (X\_DOBMM), or the biological parents were reported to not be married (P1LEGMAR=2 or P1BIOMRY=2 or P2BIOMRY=2 or P1BIOPAR=2 or P2BIOMRY=2), then X12MOMAR is coded as 2 (no). Otherwise, X12MOMAR is coded as -9 (not ascertained). It should be noted that, for biological parents who were not married at the time of the fall 2010 parent interview, but had been married in the past, X12MOMAR did not take into account the date that marriages ended. It is possible that the biological parents were married prior to the child's birth but were no longer married at the time of birth. Analysts may wish to use the variables P1ENDMO and P1ENDYR to modify this composite variable.

## 7.5.4 Teacher Composite Variables

In addition to the teacher data flags discussed in section 7.4.3 above, there are several composite variables on the file that use data from teachers. There is a composite variable (X12CHGTCH) about whether the child changed teachers from fall to spring. That is discussed below in section 7.7 about children who changed schools or teachers. There are also composite variables about the child's closeness and conflict with the teacher (X2CLSNSS, X2CNFLCT). These are described in chapter 3, along with other variables from teacher reports of children's social skills (e.g., X1TCHEXT). Other variables that use teacher data are about the child and are discussed with the child composites (e.g., X1CLASS).

#### 7.5.5 School and Class Composite Variables

Variables describing school and class characteristics were constructed from the teacher and school data and the sample frame. Details on how these variables were created follow.

## 7.5.5.1 School Type (X1KSCTYP, X2KSCTYP)

In fall 2010, FMS data about school type (from the sample frame) were used to create the school type composite (X1KSCTYP). In spring 2011, the school administrator questionnaire contained a question on school type that was used in the creation of the spring school type composite (X2KSCTYP).

In spring 2011, X2KSCTYP was created as follows: If question A6 in the school administrator questionnaire ("Which of the following characterizes your school?") was answered as "a regular public school (not including magnet school or school of choice)" (S2REGSKL); "a public magnet school" (S2MAGSKL); "a charter school" (S2CHRSKL); or "a public school of choice (open enrollment)" (S2CHCESK), the school was coded as "public." If the question was answered as "a Catholic school" of any type (S2CATHOL, S2DIOCSK, S2PARSKL, or S2PRVORS), the school was coded as "Catholic." If the question was answered as "other private school, religious affiliation" (S2OTHREL), the school was coded as "other religious." Otherwise, if the question was answered as "private school, no religious affiliation" (S2OTNAIS, S2OTHRNO), then the school was coded as "other private." If data from the school administrator questionnaire were missing, FMS data about school type were used. Homeschooled children (those schooled at home instead of at school) were coded as -1 (not applicable). These children were enrolled at the time of sampling, but became homeschooled during the 2010–11 school year. Children who moved and were not followed for round 2 and children who were not located in spring 2011 have missing values (-9) for X2KSCTYP. In addition, these children have a value of 9900000 on the variable F2CCDLEA.

There were seven cases that had discrepancies between the FMS data from the frame and the school administrator questionnaire. In five of the seven cases, public information on the Internet about the schools indicated that the school types corresponded to the FMS rather than to data from the school administrator questionnaire. These five cases were recoded according to the school type in the FMS. Public information about the other two school types indicated that the school type corresponded to the information provided on the school administrator questionnaire. These school administrator questionnaire. These school types indicated that the school type corresponded to the information provided on the school administrator questionnaire. These school types were left as coded according to the school administrator questionnaire and not changed.

If a school type for a child is not the same in fall 2010 and spring 2011, the child may have changed schools. The composite variable X12CHGSCH (described in section 7.7.1) can be used to determine if the child changed schools.

## 7.5.5.2 Public or Private School (X1PUBPRI, X2PUBPRI)

X1PUBPRI and X2PUBPRI are broad indicators of school type (with only two categories public and private) and are derived from the more detailed school type composites X1KSCTYP and X2KSCTYP described above. In both fall 2010 and spring 2011, these composites were created as follows: If school type indicated in X1KSCTYP and X2KSCTYP is 4 (public), then X1PUBPRI and X2PUBPRI are coded "public" (1). If school type indicated in X1KSCTYP and X2KSCTYP is 1, 2, or 3 (Catholic, other religious, or other private), then X1PUBPRI and X2PUBPRI are coded "private" (2). If school type is coded as -1 (not applicable) in X2KSCTYP because the child was homeschooled in spring 2011, then X2PUBPRI is coded -1 (not applicable). X1PUBPRI and X2PUBPRI are coded -9 (not ascertained) if data on school type are not available in X1KSCTYP and X2KSCTYP, respectively.

## 7.5.5.3 School and Grade-Level Enrollment (X2KENRLS, X2KENRLK)

There are two composite variables related to school enrollment on the data file: total school enrollment (X2KENRLS) on October 1, 2010 (or the date nearest to that date for which the school administrator had data available) and total kindergarten enrollment (X2KENRLK) in spring 2011. Total school enrollment was created using the school enrollment variable from the school administrator questionnaire (S2ANUMCH). If school administrator data on total school enrollment were missing, enrollment data were obtained from the 2009–10 Private School Universe Survey (PSS) for private schools and from the 2009–10 CCD (Common Core of Data) public school universe for public schools. If enrollment data were also missing on the PSS or CCD, the variable is coded -9 (not ascertained). X2KENRLK is based on a single question asked of school administrators about the number of children in the school enrolled in kindergarten, including regular kindergarten, transitional (or readiness) kindergarten, and transitional first or pre-first grade. If school administrator data for this variable were missing, 2009–10 PSS and 2009–10 CCD data for the number of children in transitional kindergarten, kindergarten, and transitional first grade are added together for total kindergarten enrollment. If PSS and CCD data were also missing, the composite is coded -9 (not ascertained). If the study child was homeschooled in spring 2011, these composites are coded -1 (not applicable).

## 7.5.5.4 Percent Non-White Students in the School (X2KRCETH)

The composite variable X2KRCETH indicates the percentage of the student population that was non-White in the spring of 2011.<sup>55</sup> The composite is derived from a question in the school administrator questionnaire (question A7) that asked the number or percentage of students in the school who were the following race/ethnicities: Hispanic/Latino of any race; American Indian or Alaska Native, not Hispanic or Latino; Asian, not Hispanic or Latino; Black or African American, not Hispanic or Latino; Native Hawaiian or other Pacific Islander, not Hispanic or Latino; White, not Hispanic or Latino; or two or more races, not Hispanic or Latino. The composite was calculated by summing the percentages for all categories except White, not Hispanic or Latino. School administrators were allowed to report their answers to the student racial composition questions as either numbers or percents. All answers provided as numbers were converted to percentages before computing the composite variable. The sum of these calculated percentages across all categories was allowed to sum to within +/- 5 percent of 100 percent to allow for minor reporting errors of numbers that did not add to the reported total or percentages that did not add to 100 percent. Totals greater than 100 percent are top-coded to 100 percent.

A flag for each individual race/ethnicity variable is included on the data file and indicates whether the school administrator reported the information as a number or a percent.<sup>56</sup> Because the composite is calculated as a percent, these flags will not be needed by users unless they are interested in examining how answers were reported. If the flag (S2ASIAFL S2HISPFL, S2BLACFL, S2WHITFL, S2AIANFL, S2HAWPFL, and S2MULTFL) for each of the race/ethnicity variables (S2ASIAPT, S2HISPPT, S2BLACPT, S2WHITPT, S2AIANPT, S2HAWPPT, and S2MULTPT) is equal to 1, that indicates the information was reported by the school administrator as a percentage.

<sup>&</sup>lt;sup>55</sup> This variable was S2KMINOR in the ECLS-K. In the ECLS-K:2011, there is a new variable factored into the composite that indicates the percentage of students classified as "two or more races, not Hispanic or Latino" (S2MULTPT).

<sup>&</sup>lt;sup>56</sup> There were also other questions in the school administrator questionnaire that allowed for answers to be recorded as either a number or percent. The flags for these variables are S2ADAFLG (average daily attendance reported as number or percent); S2ASIAFL2 (question about Asian or Pacific Islander teachers, not Hispanic or Latino, reported as number or percent); S2HISPF2 (question about Hispanic teachers reported as number or percent); S2BLACF2 (question about Black teachers, not Hispanic or Latino, reported as number or percent); S2AIANF2 (question about Asian or Alaska Native teachers, not Hispanic or Latino, reported as number or percent); S2AIANF2 (question about American Indian or Alaska Native teachers, not Hispanic or Latino, reported as number or percent); S2HAWF2 (question about Native Hawaiian or Pacific Islander teachers, not Hispanic or Latino, reported as number or percent); S2HAWF2 (question about Native Hawaiian or Pacific Islander teachers, not Hispanic or Latino, reported as number or percent); S2HAWF2 (question about Native Hawaiian or Pacific Islander teachers, not Hispanic or Latino, reported as number or percent); and S2MULTF2 (question about teachers of two or more races, not Hispanic or Latino, reported as number or percent). In all cases, the variables related to these flags provide information as numbers or percentages, with the flags indicating how the answers were originally reported by school administrators.

In some cases, the composite could not be derived from the data because of missing data or errors.<sup>57</sup> If the composite could not be derived from the data, the percentage of non-White students in the school was obtained from the 2009–10 CCD (for public schools) or the 2009–10 PSS (for private schools). If these data could not be obtained from the school administrator, the CCD, or the PSS (and thus were missing), the composite is coded -9 (not ascertained). If the study child was homeschooled in spring 2011, the composite is coded -1 (not applicable).

## 7.5.5.5 Highest and Lowest Grade at the School (X2LOWGRD, X2HIGGRD)

There are composite variables derived from information collected from the school administrator during the spring data collection that indicate the lowest grade taught at the school (X2LOWGRD) and the highest grade taught at the school (X2HIGGRD). Data from the frame were used if information collected from the school administrator was missing. Both variables are created by first coding answers of "ungraded" in question A5 of the school administrator questionnaire ("Mark all grade levels included in your school") or ungraded in the data from the frame as category 15 (ungraded) and then coding the lowest grade in the school and the highest grade in the school, respectively. The grade level for children in transitional kindergarten, kindergarten, or pre-first grade is coded as category 2 (kindergarten).

# 7.5.5.6 Students Approved for Free or Reduced-Price School Lunch (X2FLCH2\_I, X2RLCH2\_I)

Composites indicating the percent of students in the school who were approved for free school lunch and the percent of students in a school who were approved for reduced-price school lunch were derived from information collected from the school administrator during the spring data collection.

<sup>&</sup>lt;sup>57</sup> There were five recoding rules used for data with errors:

<sup>(1)</sup> If answers were reported as numbers and the total number of students was missing, the total from another question about total enrollment (Q3a S2ANUMCH) was used if the difference between the summed total and the reported Q3a total was within a 5 percent confidence interval (95-105 percent).

<sup>(2)</sup> If the method of reporting was mixed (some in numbers, other in percents), the race percentages were coded as -9.

<sup>(3)</sup> If percentages were recorded, with none of the above errors, and the summed total across categories was within +/-5 percent of 100 percent, any blanks were recorded to 0.

<sup>(4)</sup> If the summed total was not 95 - 105 percent of the sum reported or not 95 - 105 percent of total enrollment from another question (Q3a S2ANUMCH), the individually reported percentages and numbers were made -9.

<sup>(5)</sup> If numbers were reported, with none of the above errors, and the summed total across categories were within +/-5 percent of the reported total, any blanks were recoded to 0.

These composites were computed at the school level for public and private schools<sup>58</sup> participating in the study that had at least one participating child or parent respondent in the spring 2011 data collection.

School administrators were asked to report on the total enrollment in the school (S2ANUMCH), the number of children in the school who were approved for free school meals (S2NUMFRM), and the number of children who were approved for reduced-price school meals (S2NUMRDM). The percent of children approved for free school lunch is computed based on the ratio of S2NUMFRM to S2ANUMCH. Likewise, the percent of children approved for reduced-price school lunch is based on the ratio of S2NUMRDM to S2ANUMCH.<sup>59</sup>

Some school administrators did not complete the school administrator questionnaire, and among those who did, not all responded to all three questions needed to compute these composites related to approval for free or reduced-price meals. If school administrator data for public schools were missing, data were taken from the frame. The frame data used for these composites came from the 2009–10 CCD (Common Core of Data).<sup>60</sup> If data were also missing from the frame, the composite variables were missing. No frame data were available for private schools. Hot-deck imputation was conducted for cases with missing values of these composites for public schools. Hand imputation was used for a small number of private schools.<sup>61</sup> Table 7-7 shows the level of missing data for the school lunch composite variables among the schools that had at least one child or parent respondent in the spring 2011 data collection.

<sup>&</sup>lt;sup>58</sup> Both public schools and nonprofit private schools are eligible for the National School Lunch Program.

<sup>&</sup>lt;sup>59</sup> X2FLCH2\_I and X2RLCH2\_I were top-coded to 100 percent, if necessary. In the ECLS-K:2011 responses, about 5.2 percent of schools reported 100 percent or more of students received free lunch, and 0.2 percent reported 100 percent received reduced-price lunches. In contrast, the CCD measure used in this composite, which is the sum of the percents receiving free lunch and reduced priced lunches, indicated 0.71 percent at 100 percent or more.

<sup>&</sup>lt;sup>60</sup> In the ECLS-K, free or reduced lunch composites were defined as the number of students eligible for free/reduced price lunch. Because of changes to the question in the ECLS-K:2011 school administrator questionnaire, the composites are now defined as the number of students approved for free/reduced-price lunch. If there are missing data from the school administrator questionnaire, data are used from the frame (based on the 2005–06 CCD about the number of students eligible for free/reduced price lunch). Based on advice from the Economic Research Service at the United States Department of Agriculture (USDA), the distinction school administrators may make between "eligible" and "approved" was not considered great enough to prevent using the CCD data. In addition, it should be noted that the data from the school administrator are about free or reduced-price meals rather than lunch specifically because children are approved generally for meals rather than for lunch or breakfast separately.

<sup>&</sup>lt;sup>61</sup> Hand imputation was conducted for a small number of private schools whose school administrators said they participated in the USDA lunch program (or for whom participation in the USDA lunch program was not ascertained). For private schools, X2FLCH2\_I and X2RLCH2\_I are set to zero for administrators who said they did not participate in the USDA lunch program and did not report a value greater than zero for the number of children approved for free or reduced-priced meals. Otherwise, reported values for the number of children approved for free or reduced-priced meals in private schools are retained.

	2011			
School lunch	Number	Percent missing	Number of students in	Percent of students
composite	missing	I creent missing	these schools	with missing values
Free lunch	50	3.8	344	1.9
Reduced- price lunch	56	4.3	407	2.3

Table 7-7.Public and private schools with missing values for the school lunch composites: Spring<br/>2011

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2011.

In hot-deck imputation, if a school has a nonmissing value of the school lunch composite free-lunch or reduced-price lunch—that value was assigned or "donated" to a similar school with missing value of the composite. Schools are similar if they belong in the same imputation cell. Imputation cells were created using district poverty category (created from the district poverty variable X\_DISTPOV described in section 7.5.6.3), and whether the school received Title I funding. Within each imputation cell, the schools were sorted by longitude and latitude.

# 7.5.5.7 School Year Start and End Dates (X2SCHBDD, X2SCHBMM, X2SCHBYY, X2SCHEDD, X2SCHEMM, X2SCHEYY)

The composite variables indicating school year start and end dates were derived from the school administrator questionnaire question A2 (S2SYRSMM, S2SYRSDD, S2SYRSYY, S2SYREMM, S2SYREDD, S2SYREYY). If those data were not collected from the school administrator, data were taken from information contained in the FMS.

- X2SCHBDD X2 School Year Starting Date, Day
- X2SCHBMM X2 School Year Starting Date, Month
- X2SCHBYY X2 School Year Starting Date, Year
- X2SCHEDD X2 School Year Ending Date, Day
- X2SCHEMM X2 School Year Ending Date, Month
- X2SCHEYY X2 School Year Ending Date, Year

# 7.5.5.8 Geographic Region of the Child's School (X1REGION, X2REGION, X1LOCALE, X2LOCALE)

Composite variables indicating the geographic region (X1REGION, X2REGION) and locality type (X1LOCALE, X2LOCALE) of the child's school come from the 2009–10 PSS for private schools and the 2009–10 CCD for public schools. For the fall 2010 and spring 2011 geographic region composites, X1REGION and X2REGION, if the geographic region is missing from the PSS and CCD files, data from the FMS about the school's state are used to assign region. X2REGION is coded -9 (not ascertained) for children who were unlocatable or moved out of a sampled county and were not followed in spring 2011. In spring 2011, the 29 children who were homeschooled are coded as -1 on X2REGION. Values for X1REGION and X2REGION are the following:

1=Northeast: CT, ME, MA, NH, RI, VT, NJ, NY, PA;

2=Midwest: IL,IN, MI, OH, WI, IA, KS, MN, MO, NE, ND, SD;

3= South: DE, DC, FL, GA, MD, NC, SC, VA,WV, AL, KY, MS, TN,AR, LA, OK, TX; and 4= West: AZ, CO, ID, MT, NV, NM, UT, WY, AK, CA, HA, OR, WA.

For the fall 2010 and spring 2011 school locality variables, X1LOCALE and X2LOCALE, the categories correspond to the 2006 system NCES is using for coding locale (http://nces.ed.gov/surveys/ruraled/definitions.asp). If data are not available for the child's school from the PSS or CCD, the composites are coded -9 (not ascertained). Some -9 (not ascertained) values for X2LOCALE are associated with cases in which children who moved were unlocatable or moved out of a sampled county and were not followed in spring 2011. In spring 2011, the 29 children who were homeschooled are coded as -1 on X2LOCALE. These locale categories are the following:

- 11 City, Large: Territory inside an urbanized area and inside a principal city with population of 250,000 or more.
- 12 City, Midsize: Territory inside an urbanized area and inside a principal city with population less than 250,000 and greater than or equal to 100,000.
- 13 City, Small: Territory inside an urbanized area and inside a principal city with population less than 100,000.
- **21 Suburb, Large:** Territory outside a principal city and inside an urbanized area with population of 250,000 or more.

- **22 Suburb**, **Midsize:** Territory outside a principal city and inside an urbanized area with population less than 250,000 and greater than or equal to 100,000.
- 23 Suburb, Small: Territory outside a principal city and inside an urbanized area with population less than 100,000.
- **31 Town, Fringe:** Territory inside an urban cluster that is less than or equal to 10 miles from an urbanized area.
- **32 Town, Distant:** Territory inside an urban cluster that is more than 10 miles and less than or equal to 35 miles from an urbanized area.
- **33 Town, Remote:** Territory inside an urban cluster that is more than 35 miles from an urbanized area.
- **41 Rural, Fringe:** Census-defined rural territory that is less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster.
- **42 Rural, Distant:** Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster.
- **43- Rural, Remote:** Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster.

## 7.5.6 FMS Composite Variables

Several composite variables were created from data stored in the FMS, which were obtained from frame data as well as by field staff during visits to the school and discussions with school staff.

## 7.5.6.1 Year-Round Schools (X12YRRND)

The values for the year-round school composite variable are 1 (year-round school) and 2 (not year-round school). If the child was homeschooled in spring 2011, the composite is coded as -1 (not applicable). This composite is based on the FMS indicator of being a year round school, which is obtained from school coordinator. It is not based on the report from the school administrator. In 14 schools, the FMS indicated that the school was not a year-round school, but the school administrator reported that it

was (S2YROUND = yes). In 10 schools, the FMS indicated that the school was a year-round school, but the school administrator reported that it was not (S2YROUND = no).

## 7.5.7 School District Poverty (X\_DISTPOV)

Using the 2010 Small Area Income & Poverty Estimates (SAIPE), the composite X\_DISTPOV was added to provide a district level variable for the percent of children age 5-17 in school districts who are in poverty. The school districts that had estimates were based on the 2009 school district mapping survey that included school districts as of January 1, 2010. School district boundaries were for the 2009–10 school year (U.S. Census Bureau n.d.). It is the estimated number of children 5-17 years old in poverty divided by the estimated population of children 5-17 years old in the district multiplied by 100 and rounded to 0 decimals. There are 29 ECLS-K:2011 public schools with missing SAIPE data. A missing value for a public school case on the data file indicates a missing value from the SAIPE source data.

#### 7.6 Methodological Variables

To facilitate methodological research, 11 variables pertaining to aspects of the data collection work are included on the data file. These include identifiers for parent interview work area (F1PWKARE, F2PWKARE), parent interviewer (F1PINTVR, F2PINTVR), child assessor (F1CASSOR, F2CASSOR), and child assessment work area (F1CWKARE, F2CWKARE) and were extracted from the FMS. A "work area" is the group of schools that each team leader was assigned. Team leaders managed a group of 2 to 4 other individuals who worked as child assessors and parent interviewers for the sampled cases in the work area.

#### 7.7 Children Who Changed Schools or Teachers

There are variables in the file that can be used to determine if a child moved to a different school between rounds of data collection or changed teachers, either because of a change in schools or a change of teachers within a school.

## 7.7.1 Children Who Changed Schools Between Rounds (X12CHGSCH)

A variable on the file that will be of interest to users examining school change is X12CHGSCH (school change between fall 2010 and the spring 2011 collection). It indicates whether the child changed schools and, if so, the school types of the previous and the new school (e.g., whether the change was from a public to a private school, from a private to a private school, etc.). X12CHGSCH was created by comparing the child's school IDs from the fall 2010 and spring 2011 data collections, if they were not missing. A difference in IDs indicated a change. If there was no difference in IDs, X12CHGSCH was coded 1 (child did not change schools). For children who changed schools, the fall 2010 school type variable X1PUBPRI was compared to the spring 2011 school type variable X2PUBPRI. Categories were assigned as appropriate (2 = child transferred from public to private; 5 = child transferred from private to public; and 6 = child transferred, other). Category 6 was used for those children who transferred schools, but the school type of either the original or the new school was unknown. Children who did not participate in the spring 2011, or who participated in spring 2011 but not fall 2010, were coded -9, "not ascertained," on X12CHGSCH. Children who were homeschooled in spring 2011 were coded -1, "not applicable," for X12CHGSCH.

#### 7.7.2 Children Who Changed Teachers Between Rounds (X12CHGTCH)

Teacher identification numbers (T1\_ID, T2\_ID) and the composite X12CHGSCH (school change between fall 2010 and spring 2011) were used to determine whether children changed teachers between fall 2010 and spring 2011. If the fall and spring teacher identification numbers were not missing and were equal to each other, then X12CHGTCH was coded 0 (no change). If a teacher identification number was missing in either fall 2010 or spring 2011, and the school change composite indicated the child had changed schools (X12CHGSCH = 2, 3, 4, 5, or 6), then X12CHGTCH was coded as 1 (changed teachers). If both teacher identification numbers were not missing and were not equal to each other, then X12CHGTCH was also coded as 1 (changed teachers). Otherwise, if one of the teacher identification numbers was missing and the school change composite was 1 (child did not change schools), X12CHGTCH was coded as -9 (not ascertained) because it is not known whether the child changed teachers even though the child did not change schools. Children who were homeschooled in spring 2011 were coded -1, "not applicable," for X12CHGTCH.

## 8. ELECTRONIC CODEBOOK

#### 8.1 Introduction

This chapter provides specific instructions for using the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) Electronic Codebook (ECB), including information on installing the ECB, utilizing the ECB's functions, navigating through the catalog, and performing user-specified data extractions. The functionality of the ECB is the same as the functionality of ECBs released for other ECLS studies. The information in this chapter provides a comprehensive tour through the ECB and addresses all of the functions and capabilities of the program. These functions allow users to access the accompanying data catalog and view the data in various ways by performing customized searches and extractions. Using the ECB, the data user can create SAS, SPSS for Windows, and Stata syntax programs that can be run to generate an extract data file from the text (ASCII) data file on the CD-ROM.

Sections 8.1 through 8.6 contain general instructions on using the ECB including descriptions of the menu bars (exhibit 8-57). The exhibits and examples given in these sections are generic for all ECLS ECBs and will not exactly match what the users see on their own screens.

Additionally, the ECLS-K:2011 CD-ROM contains Portable Document Format (PDF) files of the associated questionnaires and parent interviews in appendix A; the record layout for the data file in appendix B; this User's Manual in appendix C; an Excel file with the base weights and delivery IDs and a PDF file with a description of the base weights in appendix D; and a description of the data file in appendix E.

#### 8.1.1 Hardware and Software Requirements

The ECB program is designed to run under Windows 95<sup>®</sup>, Windows 98<sup>®</sup>, Windows 2000<sup>®</sup>, Windows XP<sup>®</sup>, or Windows NT<sup>®</sup> 4.0 on a Pentium-class or higher personal computer (PC). The ECB has been successfully tested using current versions of Windows Vista and Windows 7. The ECB is not designed for use on Apple Macintosh systems, but Mac users can create a data file using the record layout provided in appendix B on the CD-ROM.

The PC should have a minimum of 20 megabytes of available disk space. The program will fit best visually on screens set to a desktop area of  $1024 \times 768$  pixels. It will still work on other screen settings, but it may not make the best use of the available screen space. If you have a Windows NT<sup>®</sup> or earlier operating system, you can check or set your desktop area as follows:

- 1. Click the Windows Start button.
- 2. Select the Settings menu and then the Control Panel folder icon.
- 3. In the Control Panel window, click the Display icon.
- 4. Select the Settings tab.
- 5. Set the Desktop Area to 1024 x 768 pixels with the Desktop Area slidebar.

If you have a Windows Vista or Windows 7<sup>®</sup> operating system, you can check or set your desktop area as follows:

- 1. Click the Windows Start Button.
- 2. Select the Control Panel tab.
- 3. In the Control Panel window, click the Display icon.
- 4. Select the Change display settings tab.
- 5. Set the Desktop Area to 1024 x 768 pixels with the Desktop Area slidebar.

As noted above, the ECB requires approximately 20 megabytes of available disk space on your hard drive. If 20 megabytes of space is not available, you may wish to delete unnecessary files from the drive to make space for the ECB.

## 8.1.2 ECB Features

The ECB allows a user to do the following:

 Search the names and labels of variables in the database (called the catalog) to select variables for analysis (see section 8.3, Variable List).

- Examine the question wording, response categories, and response frequencies for variables the user selects (see section 8.4.8, Viewing Codebook and Variable Information).
- Create a list of variables to be extracted from the catalog, save the list for later use, print the list as a codebook, or use a predefined list on the ECB (see section 8.4, Working Taglist).
- Automatically generate SAS, SPSS for Windows, or Stata syntax programs that can be run to extract selected variables from the whole dataset or for a subset of the cases that are defined by the user (see section 8.5, Extracting Data From the ECB).

The ECB does not create a SAS, SPSS for Windows, or Stata data file. It will prepare the statements that you can use with your own SAS, SPSS for Windows, or Stata software to create your file. As noted earlier, the CD-ROM contains an ASCII dataset; the ECB generates code that can be used to create a customized data extract that contains the specific variables a user identifies.

## 8.2 Installing, Starting, and Exiting the ECB

The ECB is provided on the ECLS-K:2011 CD-ROM and is intended to be installed and run from within the Windows 95<sup>®</sup>, Windows 98<sup>®</sup>, Windows 2000<sup>®</sup>, Windows XP<sup>®</sup>, Windows NT<sup>®</sup> 4.0, Windows Vista, or Windows 7<sup>®</sup> environment. The sections in this chapter provide you with step-by-step instructions for installing the program on your PC, starting the program, and exiting the program once you have completed your tasks.

## 8.2.1 Installing the ECB Program on Your Personal Computer

Program installation is initiated by running the Setup.exe file found within the CD-ROM's root directory.

#### How to Install the Program

- 1. Close all applications on your computer.
- 2. Insert the installation CD-ROM into your PC's CD-ROM drive.
- 3. From the desktop Start menu, select Run.

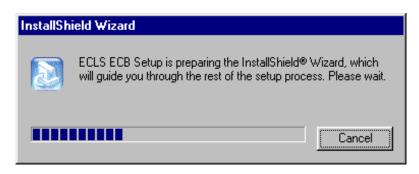
4. Type "D:\Setup.exe" into the Open field of the Run screen, shown in exhibit 8-1. If your CD-ROM drive is assigned a different drive letter, substitute that letter for the "D."

## Exhibit 8-1. Windows Run screen

Run	? ×
<u> </u>	Type the name of a program, folder, or document, and Windows will open it for you.
<u>O</u> pen:	D:\setup.exe
	OK Cancel <u>B</u> rowse

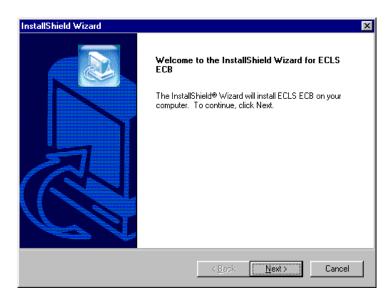
- 5. Click the OK button to start the installation. You will now see several installation screens, some of which will prompt you for a response.
- Depending on your PC's configuration, you may encounter warning messages during installation. To respond, always keep the newer version of a file being copied and ignore any access violations that occur during file copying.
- If you are installing multiple ECBs (not different versions of the same ECB) on your PC, you may receive a message warning that Setup is about to replace pre-existing files. To respond, always opt to continue the installation although the default is to cancel the setup. When you get a follow-up message to confirm whether the installation should be continued, press Yes to continue, although the default is No.
- 6. The screen shown in exhibit 8-2 indicates that the setup is being prepared.

## Exhibit 8-2. InstallShield Wizard



7. You will be prompted to continue with the installation in the Welcome window shown in exhibit 8-3. Click the Next button to continue.

## Exhibit 8-3. Welcome window



8. When you continue, you will be prompted to choose a destination location for the installation in the window shown in exhibit 8-4. If you wish to change the destination location, click the Browse button to change the directory. Click the Next button when the desired destination folder is shown.

Exhibit 8-4. Choose Destination Location

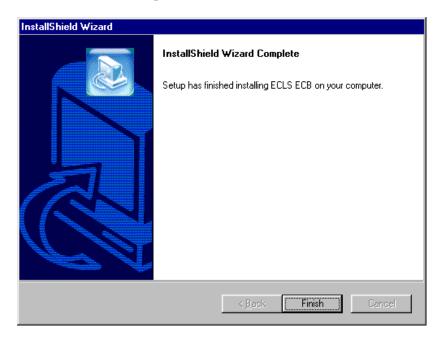
InstallShield Wizard	×
Choose Destination Location Select folder where Setup will install files.	
Setup will install ECLS ECB in the following	ng folder.
To install to this folder, click Next. To inst another folder.	tall to a different folder, click Browse and select
Destination Folder C:\Program Files\ECLS ECB	B <u>r</u> owse
InstallShield	< <u>B</u> ack <u>Next</u> Cancel

9. Setup will then start installing files. Exhibit 8-5 shows the setup status.

Exhibit 8-5. Setup Status

InstallShield Wiz	zard	×
Setup Status		
ECLS ECB Se	tup is performing the requested operations.	
Installing:		
C:\Program Fil	es\ECLS ECB\db\Ecls-k.hlp	
	15%	
InstallShield		
		Cancel

- 10. Once the installation is completed, the InstallShield Wizard Complete window shown in exhibit 8-6 will appear. Click the Finish button to finish the process and return to your PC's desktop.
- Exhibit 8-6. InstallShield Wizard Complete



11. The installation process should take about a minute, depending on the speed of the computer on which the ECB is being installed.

Another option for installing the ECB software is to go to My Computer, find the CD/DVD's root directory, and double-click the Setup.exe icon. Make sure the ECB CD-ROM is in the CD-ROM drive before starting. The process will begin at step 6 in the section above.

## 8.2.2 How to Start the ECB

• On the desktop screen, click the ECB desktop icon (exhibit 8-7a) shown below to initiate the program. Alternatively, on the desktop screen, click the Start button and then point to Programs (exhibit 8-7b). Click the ECB title to invoke the program.

Exhibit 8-7a. Desktop icon



	_				
		- <u>ò</u> -		📻 Accessories	≁
Mu	Computer			📻 Adobe Acrobat 4.0	►
my	compater			📻 Backpack	►
				📻 Blaise 4.5	►
	크림			📻 Blaise41	►
	letwork ghborhood			📻 Connections	►
меі	griborriood			📻 Dbmscopy	►
	<mark>₽</mark>			📻 Dell	+
	licrosoft			📻 GS Tools	•
	Dutlook			📻 Main	►
	<b>1</b>			📻 Microsoft Developer Network	+
_	খ			📻 Microsoft Hardware	►
Re	cycle Bin			📻 Microsoft Visual Basic 5.0	►
_	_			📻 Microsoft Visual Basic 6.0 👘	•
		Programs	•	📻 Microsoft Web Publishing	•
		Desuments	•	📻 Novell	•
		<u>D</u> ocuments		📻 QuickTime	•
	- 🔼 .	<u>S</u> ettings	►	📻 Real	•
		<u>F</u> ind		📻 Seagate Crystal Reports	•
				📻 Seagate Crystal Reports 6.0	•
ល្អ	1	<u>H</u> elp		📻 SPSS for Windows	•
	<u>.</u>	<u> R</u> un		📻 StartUp	►
Į		<u></u>		📻 The Office	►
Ηð	<b>I</b>	Suspe <u>n</u> d		📻 Utilities	►
Ę	l 🍝			📻 Weswin Login	►
5		Sh <u>u</u> t Down		📻 WinBatch	•
	Start			🔀 ECLS ECB	

Exhibit 8-7b. Desktop screen—click start

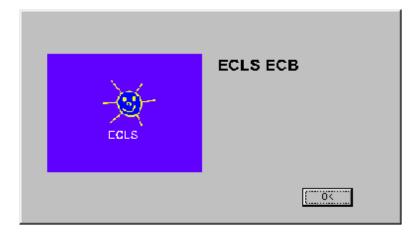
• If you are a first-time user of the ECB, exhibit 8-8 will appear and ask if you are a new ECB user.

Exhibit 8-8. First-time user dialog box

ECLS ECB 🛛 🕅				
Is this the first time you have used the ECLS ECB?				
<u>Yes</u> <u>N</u> o				

Click Yes if you are a first-time user. The ECB splash screen shown in exhibit 8-9 will appear.

Exhibit 8-9. ECB splash screen



• On the Select Catalog screen (exhibit 8-10), highlight the name of the catalog. (The ECLS-K:2011 base year ECB has only one catalog.)

Exhibit 8-10. Select Catalog screen

elect Catalog
Catalog Name
OK Cancel

• Click OK to open the main ECB screen, shown in exhibit 8-11.

Exhibit 8-11. Main ECB screen

	- Catalog Name - [Create Tag st Extract Tools Codebook <u>F</u>						_ 8 ×
	VARIABLE LIST				WORKING TAGLIST	New	
Narrow	Expand Reset	Go Field ID: 1		Save	Γ	Save As	
Variable Name	Variable Description	<b></b>		Variable Name	Variable Description		
VAR1	VARIABLE LABEL 1			VAR1	VARIABLE LABEL 1		
VAR2	VARIABLE LABEL 2		>	VAR2	VARIABLE LABEL 2		
VAR3	VARIABLE LABEL 3			VAR3	VARIABLE LABEL 3		
VAR4	VARIABLE LABEL 4		>>				
VAR5	VARIABLE LABEL 5						
VAR6	VARIABLE LABEL 6						
VAR7	VARIABLE LABEL 7		<<				
VAR8	VARIABLE LABEL 8						
VAR9	VARIABLE LABEL 9		<				
VAR10	VARIABLE LABEL 10		<u>`</u>				
VAB11	VARIABLE LABEL 11						
VAR12	VARIABLE LABEL 12						
VAR13	VARIABLE LABEL 13						
VAR14 VAR15	VARIABLE LABEL 14						
VAR15 VAR16	VARIABLE LABEL 15 VARIABLE LABEL 16						
VAR16 VAR17	VARIABLE LABEL 16						
VAR17 VAR18	VARIABLE LABEL 17						
VAR10	VARIABLE LABEL 19						
VAR20	VARIABLE LABEL 20						
VAR21	VARIABLE LABEL 21						
VAR22	VARIABLE LABEL 22						
VAR23	VARIABLE LABEL 23						
VAR24	VARIABLE LABEL 24						
VAR25	VARIABLE LABEL 25						
VAR26	VARIABLE LABEL 26						
VAR27	VARIABLE LABEL 27						
VAR28	VARIABLE LABEL 28						
VAR29	VARIABLE LABEL 29						
VAR30	VARIABLE LABEL 30						
VAR31	VARIABLE LABEL 31						
VAR32	VARIABLE LABEL 32	•					
		E		•			•
p							

• You are now ready to use the functions of the ECB as described in the following sections.

## 8.2.3 Exiting the ECB

The ECB can be shut down at any time; however, you will be prompted to save any unsaved information.

## How to Shut Down the ECB

1. From the File menu, click the Exit option as shown in exhibit 8-12.

## Exhibit 8-12. Exit screen

🕌 ECLS ECB - Catalog Name - [Create Taglist]								
<u>X File T</u> aglist <u>E</u> xti	ract Tools <u>C</u> odebook <u>H</u> elp							
Open Catalog.	VARIABLE LIST							
Print Se <u>t</u> up	Reset Go							
Vanabio Trans	able Description							
VAR1 VARIABLE LABEL 1								
VAR2 VARIABLE LABEL 2								

- 2. If you have not saved your Working Taglist (defined in section 8.4, below), you will be prompted with the dialog box shown in exhibit 8-13.
- Exhibit 8-13. Save working taglist dialog box

Save Changes?				
Save changes to working taglist?				
Yes No Cancel				

3. If you DO NOT wish to save your Working Taglist, click the No button. If you DO wish to save your Working Taglist, click the Yes button. For more information, refer to section 8.4.4, Saving Taglists.

## 8.2.4 Removing the ECB Program From Your Personal Computer

## How to Uninstall the ECB for Users with Windows XP<sup>®</sup>

- 1. Click the Windows Start button.
- 2. Select the Settings menu.
- 3. In the Control Panel window, click Add/Remove Programs.
- 4. Select ECB and click the Add/Remove button.

- 5. Follow any prompts. You will be prompted by the InstallShield Wizard to confirm the software removal and finish the process.
- 6. The program is designed so that the software removal process will keep the taglists when the ECB program is removed in order that all the saved taglists will be retained when the ECB is reinstalled. As a result, removing the software will not remove the directory where the ECB was located.

## How to Uninstall the ECB for Users with Windows 7<sup>®</sup> Operating Systems

- 1. Click the Windows Start Button.
- 2. Select the Control Panel tab.
- 3. In the Control Panel window, click the Programs and Features icon.
- 4. Select ECB and click the Uninstall button.
- 5. Follow any prompts. You will be prompted by the InstallShield Wizard to confirm the software removal and finish the process.
- 6. The program is designed so that the software removal process will keep the taglists when the ECB program is removed in order that all the saved taglists will be retained when the ECB is reinstalled. As a result, removing the software will not remove the directory where the ECB was located.

## 8.2.5 Title Bar

The Title Bar, shown below in exhibit 8-14, is the horizontal bar located at the top of the main screen. It will list the name of the program and the catalog that you have opened, and it will indicate that you are in the Create Taglist mode.

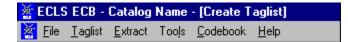
Exhibit 8-14. Title Bar

🖌 ECLS ECB - Catalog Name - [Create Taglist] 👘

## 8.2.6 Menu Bar

Selecting items from the pull-down menus listed on the Menu Bar (exhibit 8-15) provides access to the available action commands. Section 8.6 shows the choices and functions available within each menu.

Exhibit 8-15. Menu Bar



## How to access the Menu Bar items

- 1. Point to an item on the Menu Bar and click.
- 2. Click a command from the drop-down list.

The Menu Bar may also be activated and its options selected using the shortcut keys described in section 8.2.7.

## 8.2.7 Using Shortcut Keys to Navigate

The shortcut keys provide a means for selecting menu options and screen buttons without the use of a mouse. These shortcut keys are identified by an <u>underscore</u> under the shortcut letter within the option or button label. The menus that appear on the windows are activated by simultaneously selecting the  $\langle$ ALT $\rangle$  key and the underscored letter. An example of this is the activation of the Taglist Menu by selecting the key combination of  $\langle$ ALT $\rangle$  and  $\langle$ T $\rangle$ . Once the menu is activated and all options are displayed, the options can be selected by then pressing the underscored letter for the desired option or by pressing the arrow keys to move between the options.

Not all screens have shortcut keys. They may, however, be used without mouse capability by pressing the <TAB> key. The <TAB> key moves the cursor or highlight through the options and buttons within the windows. When the desired option or button is highlighted, it can be selected by pressing the <ENTER> key.

## 8.3 Variable List

The ECB main screen, shown in exhibit 8-16, comprises two primary lists that each provide functions for reviewing, grouping, and extracting variable data from the opened catalog. These lists include the Variable List and the Working Taglist.

	- Catalog Name - [Create Tag					_ 8 ×
<u>X</u> <u>F</u> ile <u>T</u> aglis		elp				그리즈
	VARIABLE LIST				WORKING TAGLIST New	
Narrow	Expand Reset	Go Field ID: 1		Save	Save As	]
Variable Name	Variable Description	<b>▲</b>		Variable Name	Variable Description	
[VAR1]	VARIABLE LABEL 1			VAR1	VARIABLE LABEL 1	
VAR2	VARIABLE LABEL 2		>	VAR2	VARIABLE LABEL 2	
VAR3	VARIABLE LABEL 3			VAR3	VARIABLE LABEL 3	
VAR4	VARIABLE LABEL 4		>>			
VAR5	VARIABLE LABEL 5					
VAR6	VARIABLE LABEL 6					
VAR7 VAR8	VARIABLE LABEL 7 VARIABLE LABEL 8		<<			
VAR9	VARIABLE LABEL 9					
VAR10	VARIABLE LABEL 10		<			
VAB11	VARIABLE LABEL 11					
VAB12	VARIABLE LABEL 12					
VAR13	VARIABLE LABEL 13					
VAB14	VARIABLE LABEL 14					
VAR15	VARIABLE LABEL 15					
VAR16	VARIABLE LABEL 16					
VAB17	VARIABLE LABEL 17					
VAR18	VARIABLE LABEL 18					
VAR19	VARIABLE LABEL 19					
VAR20	VARIABLE LABEL 20					
VAR21	VARIABLE LABEL 21					
VAR22	VARIABLE LABEL 22					
VAR23 VAR24	VARIABLE LABEL 23 VARIABLE LABEL 24					
VAB24 VAB25	VARIABLE LABEL 24 VARIABLE LABEL 25					
VAR25 VAR26	VARIABLE LABEL 25 VARIABLE LABEL 26					
VAR27	VARIABLE LABEL 27					
VAR28	VARIABLE LABEL 28					
VAR29	VARIABLE LABEL 29					
VAR30	VARIABLE LABEL 30					
VAR31	VARIABLE LABEL 31					
VAR32	VARIABLE LABEL 32	-				
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Exhibit 8-16. ECB main screen

The Variable List, shown in exhibit 8-17, is a list of all variables associated with the current catalog. When you first open a catalog, all variables contained in the catalog are displayed in the Variable List. Once the catalog is open and the Variable List is displayed, you can scroll through the list using the scrollbar controls at the right side of the Variable List screen. Additionally, you can press <PgUp> and <PgDn> to scroll the list one screen at a time. <Ctrl><Home> and <Ctrl><End> will move to the first and last variable in the list, respectively. Also, the arrow keys can be used to move through the list of variable names.

		VARIA	ABLE	LIST			
Narrow Exp	and	Re	eset		Go	Field ID: 1	
Variable Name	Var	iable De	escriptio	n			
VAR1		RIABLE					
VAR2		RIABLE		-			
VAR3		RIABLE		-			
VAR4		RIABLE		-			
VAR5		RIABLE		-			
VAR6		RIABLE		-			
VAR7		RIABLE					
VAR8		RIABLE		-			
VAR9		RIABLE		-			
VAR10		RIABLE					
VAR11		RIABLE					
VAR12		RIABLE					
VAR13		RIABLE					
VAR14		RIABLE					
VAR15		RIABLE					
VAR16		RIABLE					
VAB17		RIABLE					
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VAR21		RIABLE					
VAR22		RIABLE					
VAR23		RIABLE					
VAR24		RIABLE					
VAR25		RIABLE					
VAR26		RIABLE					
VAR27		RIABLE					
VAR28		RIABLE					
VAR29		RIABLE					
VAR30							
VAR31 VAR32							
VARIJZ	VA	RIABLE	LABEL	32			
<b> </b> •							•

The Field ID at the upper right corner of the Variable List shows the field ID of the selected variable on the Variable List. The field ID is the variable's number in the ECB—for example, CHILDID is the first variable appearing in the ECB, and it has FieldID=1.

The Variable List provides you with a comprehensive means of reviewing and identifying the variables that you want to use. To help you select the desired variables, the ECB provides you with the following capabilities:

- Perform searches of variable names and descriptions (see section 8.3.1);
- View codebook information for each variable (see section 8.4.8); and
- Move selected variables to a Working Taglist (see section 8.4.2).

## 8.3.1 Searching the Codebook for Variables

The ECB allows you to search the catalog's Variable List for variables meeting criteria you specify. The Narrow Search and Expand Search functions are used to develop and refine the variables listed in your Variable List before adding them to your Working Taglist. Help screens with topical variable groupings were designed for each catalog to expedite searching. The catalog-specific topical variable groupings can be found in appendix E on the CD-ROM.

## 8.3.1.1 Using the Go Button

Using the Go button, located at the top of the Variable List column, allows you to quickly move to a particular variable in the Variable List. You use the field ID presented in the Help screens described earlier.

## How to Use the Go Button

- 1. Type the field ID in the input box on the left of the Go button.
- 2. Click the Go button.
- 3. The Variable List will then scroll down automatically to show the selected variable.
- 4. The selected variable is highlighted.
- 5. The field ID of the current variable selected is shown on the right of the Go button (exhibit 8-18).
- 6. Click the Reset button to return to the top of the original Variable List (Field ID 1) or enter another field ID to scroll to another variable.

For field IDs that identify different groups of variables, please refer to appendix E on the CD-ROM for the catalog-specific topical variable groupings.

The Go button will not be available in a narrowed or expanded list. After a Narrow Search or an Expand Search, you must reset the Variable List (see section 8.3.1.4) before you can use the Go button.

## Exhibit 8-18. Go button

<u>X</u> <u>F</u> ile <u>T</u> aglist <u>E</u> i	tract Too <u>l</u> s <u>C</u> odebook <u>H</u> elp							
VARIABLE LIST								
Narrow Exp	and Reset 10 Go	Field ID: 10						
Variable Name	Variable Description	A						
VAR1	VARIABLE LABEL 1							
VAR2	VARIABLE LABEL 2							
VAR3	VARIABLE LABEL 3							
VAR4	VARIABLE LABEL 4							
VAR5	VARIABLE LABEL 5							
VAR6	VARIABLE LABEL 6							
VAR7	VARIABLE LABEL 7							
VAR8	VARIABLE LABEL 8							
VAR9	VARIABLE LABEL 9							
VAR10	VARIABLE LABEL 10	_						
VAR11	VARIABLE LABEL 11							
VAR12	VARIABLE LABEL 12							
VAR13	VARIABLE LABEL 13							
VAR14	VARIABLE LABEL 14							
VAR15	VARIABLE LABEL 15							
VAR16	VARIABLE LABEL 16							
VAR17	VARIABLE LABEL 17							
VAR18	VARIABLE LABEL 18							
VAR19 VAR20	VARIABLE LABEL 19 VARIABLE LABEL 20							
VAR20 VAR21	VARIABLE LABEL 20 VARIABLE LABEL 21							
VAR21 VAR22	VARIABLE LABEL 21 VARIABLE LABEL 22							
VAR23	VARIABLE LABEL 22							
VAR24	VARIABLE LABEL 23							
VAR25	VARIABLE LABEL 24							
VAR26	VARIABLE LABEL 25							
VAR20 VAR27	VARIABLE LABEL 27							
VAR28	VARIABLE LABEL 28							
VAR29	VARIABLE LABEL 29							
VAR30	VARIABLE LABEL 30							
VAR31	VARIABLE LABEL 31							
VAR32	VARIABLE LABEL 32							

The field ID remains active in a narrowed or expanded list. However, the field IDs indicate the order of the variables in the catalog rather than the order in the Variable List. As a result, the field IDs would not change in a narrowed or expanded list.

## 8.3.1.2 Narrowing Your Variable Search

The Narrow Search function can be used to narrow the list of variables displayed in the Variable List. Since some catalogs have several thousand variables, this feature helps eliminate the variables that do not apply to your analysis. In performing the Narrow Search, you can enter key characters, words, or phrases as your criteria for searching the variable names, variable descriptions, or both. Also, the Narrow Search can be performed multiple times, allowing you to repeatedly refine the list of variables displayed in the Variable List column. Note that ECB searches do not include the question text for each variable; users are advised to consult the ECLS-K:2011 survey instruments in addition to performing ECB searches to ensure that they are including all variables of interest to their analyses.

Performing the Narrow Search function will only narrow down the variables listed in the Variable List window and will not affect those in the Working Taglist window.

## How to Conduct a Narrow Search

- 1. Click the Narrow button located above the Variable List window.
- 2. The Narrow Search dialog box appears as shown in exhibit 8-19.

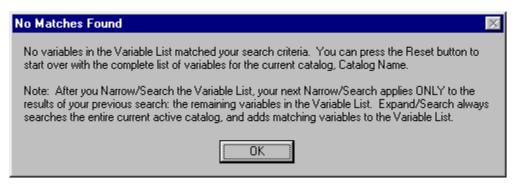
Exhibit 8-19. Narrow Search Text dialog box

Search Text			
Enter Narrow Text:			
Search:			
C Variable Name			
C Variable Description			
<ul> <li>Both Variable Name and Description</li> </ul>			
Search Cancel			

- 3. Enter a key character string, word, or phrase in the Enter Narrow Text field. Character strings can include a single alphanumeric character or a sequence of several characters. The search is not case sensitive. The results returned will be all entries that contain that exact sequence of letters, numbers, spaces, and words.
- 4. Click the Variable Name, Variable Description, or Both Variable Name and Description radio button to specify where to search.
- 5. Click the Search button to initiate the search.
- 6. The variables meeting the specified criteria will be displayed in the Variables List column.

If no variable names or descriptions in the catalog contain the specified search text, then the message shown in exhibit 8-20 will appear.

## Exhibit 8-20. No Matches Found message



7. Repeat the Narrow Search procedure if necessary. (A variable list that has been narrowed already can be narrowed further.)

Please note that the field ID at the upper right corner of the Variable List reflects the order of the variables in the catalog rather than that in the narrowed Variable List.

## **Example of Narrowing a Search**

The following example shows you how to narrow the Variable List. In this example, you want to include all the variables from the catalog that contain the text "edu" in the variable name or description. Do the following:

- 1. In the Variable List, click the Narrow button.
- 2. In the Search Text Box (shown in exhibit 8-21), type in "edu" and then click the Search button.

Exhibit 8-21. Example of narrowing a search

Search Text
Enter Narrow Text:
edu
Search:
C Variable Name
C Variable Description
Both Variable Name and Description
Search Cancel

3. The new Variable List will include only the variables that have the text "edu" in the variable name or the variable description.

The catalog-specific topical variable groupings can be found in appendix E on the CD-ROM. Simply find the topic of interest in the Topic column first and then enter in the Search Text Box the matching keywords in the Variable Identifier to narrow the search.

## 8.3.1.3 Expanding Your Variable Search

The Expand Search function can be used to expand a previously narrowed list of variables displayed in the Variable List. After performing a Narrow Search operation, you can add variables to your current Variable List that meet your specified criteria. In performing the Expand Search, you can enter key characters, words, or phrases as your criteria for searching the variable names, variable descriptions, or both. Also, the Expand Search can be performed multiple times, allowing you to repeatedly expand the list of variables displayed in the Variable List column.

Performing the Expand Search function will only expand the variables listed in the Variable List window and will not affect those in the Working Taglist window.

## How to Conduct an Expand Search

- 1. Click the Expand button located above the Variable List window.
- 2. The Expand Search dialog box will appear as shown in exhibit 8-22.

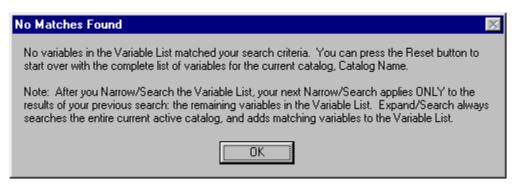
Exhibit 8-22. Expand Search Text dialog box

Search Text
Enter Expand Text:
Search:
Variable Name
C Variable Description
C Both Variable Name and Description
Search Cancel

- 3. Enter a key character string, word, or phrase in the Enter Expand Text field. Character strings can include a single alphanumeric character or a sequence of several characters. The search is not case sensitive. The results returned will be all entries that contain that exact sequence of letters, numbers, spaces, and words.
- 4. Click the Variable Name, Variable Description, or Both Variable Name and Description radio button to specify where to search.
- 5. Click the Search button to initiate the search.
- 6. The variables meeting the specified criteria will be added to the variables already displayed in the Variables List column.
- 7. Repeat the Expand Search procedure if necessary. (A variable list that has been expanded already can be expanded further.)

If no variable names or descriptions in the catalog contain the specified search text, then the "No matches found" message shown in exhibit 8-23 will appear.

## Exhibit 8-23. No Matches Found message



Please note that the field ID at the upper right corner of the Variable List reflects the order of the variables in the catalog rather than that in the expanded Variables List.

## 8.3.1.4 Resetting Your Variable List

Following a narrowing or expanding of the Variable List as described earlier, it is possible to reset the list to display *all* of the variables available in the catalog. The Variable List is reset by clicking on the Reset button located at the top of the Variable List column. Resetting the Variable List does not affect the variables listed in the Working Taglist.

## 8.4 Working Taglist

The Working Taglist, shown in exhibit 8-24, displays a list of variables that are currently selected or tagged for extraction. All Working Taglists contain a set of variables, called required variables, that will be automatically included in all data files that the user creates. The required variables provide a foundational dataset upon which other variables rely. These required variables cannot be untagged or deleted from the Working Taglist by the user. When a catalog is first opened, the default Working Taglist consists of only the required variables for that catalog. (See appendix E on the CD-ROM for the catalog-specific required variables.) To create a taglist, add the variables you have selected to the required variables.

# Exhibit 8-24. ECB Working Taglist

	WORKING TAGLIST New
Save	Save As
Variable Name	Variable Description
VAR1	VARIABLE LABEL 1
VAR2 VAR3	VARIABLE LABEL 2 VARIABLE LABEL 3
1010	

# 8.4.1 Opening a Taglist

The ECB allows you to open a predefined or previously saved taglist and display it in the Working Taglist column. Taglists, however, are saved as part of a particular catalog and can only be opened as part of the associated catalog.

#### How to Open a Taglist

- 1. Open a catalog.
- 2. Select Open from the Taglist pull-down menu.
- 3. The Open Taglist dialog box, shown in exhibit 8-25, appears.

Exhibit 8-25. Open Taglist dialog box

Open Taglist					
Taglist 1 Taglist 2	]				
Taglist 2					
		OK	1	Cancel	
				Cancer	

- 4. Highlight the taglist that you wish to open.
- 5. Click the OK button.

If you have made modifications to the taglist currently open in the Working Taglist column, you will be prompted to save your changes.

#### 8.4.2 Adding Variables to the Working Taglist

Variables can be added to your Working Taglist after you have identified the variables in the ECB's catalog that you want to extract. The user-selected variables can be added to the Working Taglist by selecting one of the two command buttons described in exhibit 8-26. The Working Taglist may also have variables added to it from a previously saved taglist. When moving or adding variables to the Working Taglist, the ECB will not permit variables to be listed multiple times. This is an automatic feature of the ECB.

Multiple variables can be selected by using the following Microsoft Windows<sup>©</sup> techniques:

- Simultaneously pressing the <SHIFT> + Up/Down arrow keys or
- Pressing <CTRL> + left-mouse clicking on the items to be selected (or deselected). Also, <SHIFT> + left-mouse clicking extends the selection to include all list items between the current selection and the location of the click.

# How to Add Variables to a Working Taglist

- 1. Highlight the variable(s) in the Variables List that you wish to add. (See Microsoft Windows<sup>©</sup> techniques discussed earlier.)
- 2. Click the Tag button, and the selected variables are added to your Working Taglist. To add all variables from the catalog displayed in the Variable List window to your Working Taglist, click the Tag All button.

Exhibit 8-26. Add variables buttons

Command Button	Description
>	The "Tag button" moves variables that are selected in the Variable List to the Working Taglist for extraction.
>>>	The "Tag All button" moves all variables in the Variable List to the Working Taglist for extraction.

#### How to Add Variables From Another Taglist

- 1. Click the Taglist pull-down menu to display the menu options.
- 2. Select the Add option to display a list of previously saved taglists, shown in exhibit 8-27.
- 3. Highlight the saved taglist whose variables you wish to add to your Working Taglist.
- 4. Click the OK button.
- 5. The new variables are added to your Working Taglist.

# Exhibit 8-27. Add Taglist dialog box

Add Taglist				
Taglist 1 Taglist 2	)			
		ок	Cancel	1
			Cancer	

## 8.4.3 Removing Variables From the Working Taglist

Variables are removed from your Working Taglist by selecting one or more of the nonrequired variables and clicking one of the two command buttons described in exhibit 8-28. All variables can be removed by clicking on the Untag All button. All but the required variables will be deleted from your Working Taglist. Required variables are variables that are automatically extracted for all user-created files and cannot be removed from the taglist by the user.

#### How to Untag Variables From the Working Taglist

- 1. Highlight the variable(s) in the Working Taglist that you wish to remove. (See Microsoft Windows<sup>©</sup> techniques discussed on page 8-26.)
- 2. Click the Untag button, and the selected variables are removed from your Working Taglist. To remove all nonrequired variables from the Working Taglist, click the Untag All button.

#### Exhibit 8-28. Remove variables buttons

Command button	Description
<	The Untag button removes variables that are selected from the Working Taglist.
<<	The Untag All button removes all non-required variables from the Working Taglist.

Removing or untagging required variables from the Working Taglist is not permitted by the ECB. A message will be displayed indicating that the required variable cannot be untagged.

## 8.4.4 Saving Taglists

The ECB has the ability to save the newly created or modified taglist displayed in the Working Taglist column. Taglists can be saved either under the name already assigned or under a new name. If you have opened a new taglist and have not yet assigned it a name, you will be presented with the Save As dialog box. If you have opened a predefined taglist and have made modifications to it, you must save the modified taglist to a new name. You will also be prompted to save your Working Taglist changes if you attempt to close the catalog or if you open or import another taglist.

## How to Save a New Taglist

- 1. Complete any changes you wish to make to the new taglist.
- 2. Click the Save or Save As button above the Working Taglist column. You can also select the Save or Save As options from the Taglist pull-down menu.
- 3. The Save Taglist As dialog box appears as shown in exhibit 8-29.
- 4. Enter the new name for the taglist in the Taglist Name field.
- 5. Click the Save button.
- 6. The newly assigned taglist name now appears in the Working Taglist header bar.

If a name that already exists is entered, you will be prompted to replace the old taglist with the new taglist. Click Yes only if you wish to replace the old taglist with the new taglist.

Exhibit 8-29. Save Taglist As dialog box

Save Taglist As		
Taglist Name :	Taglist 3	Save Cancel

## How to Save an Existing Taglist Under a New Name

- 1. Complete any changes you wish to make to the existing taglist.
- 2. Click the Save As button above the Working Taglist column. You can also click the Taglist pull-down menu and select the Save As option.
- 3. The Save Taglist As dialog box appears, shown in exhibit 8-30, with the current taglist name in the Taglist Name field.
- 4. Enter the new name of the taglist in the Taglist Name field.
- 5. Click the Save button.
- 6. The newly assigned taglist name now appears in the Working Taglist header bar.

If a name that already exists is entered, you will be prompted to replace the old taglist with the new taglist. Click Yes <u>only</u> if you wish to replace the old taglist with the new taglist or enter a unique name.

Exhibit 8-30. Save Taglist As dialog box (#2)

Save Taglist As		
Taglist 3		
Taglist Name :	Taglist 4	Save Cancel

## 8.4.5 Exporting Taglists

Taglists can be saved as external files (\*.tlt) for distribution. However, the exported files should be accessed only through the ECBs. Manually modifying the files outside of the ECB software is not recommended.

#### How to Export a Taglist

- 1. Add to the Working Taglist all the variables that you would like to export.
- 2. Click the Taglist pull-down menu (exhibit 8-31) and select the Export option.
- 3. The Export Working Taglist To dialog box appears (exhibit 8-32).
- 4. Enter the file name for your taglist.
- 5. Click the Save button.

If a name that already exists is entered, you will be prompted to replace the old taglist file with the new exported taglist file. Click Yes <u>only</u> if you wish to replace the old taglist with the new taglist or enter a unique name.

The Working Taglist will be saved under the file name you enter.

Exhibit 8-31. Pull-down menu to select Taglist Export

🕌 ECLS	ECB -	Catalog	Name	- [Create
🕌 <u>F</u> ile	<u>T</u> aglist	<u>E</u> xtract	Too <u>l</u> s	<u>C</u> odebo
	<u>N</u> ew	) Ctrl	+N	ABLE LI
Narrov	<u>0</u> pe		+0	(eset)
Variable VAR1 VAR2 VAR3	<u>D</u> ele A <u>d</u> d <u>S</u> ave Save	e Ctrl	+S	escription E LABEL 1 E LABEL 2 E LABEL 3
VAR4 VAR5	Impo	ort		E LABEL 4 E LABEL 5
VAR6	Expo			E LABEL 6
VAR7 <sup>*</sup> VAR8				E LABEL 7 E LABEL 8

# Exhibit 8-32. Export Taglist dialog box

Export Worki	ng Taglist To			? ×
Savejn:	🔄 ECLS ECB	•	<b>E</b>	
🔲 db 🔊 Taglist1.tlt				
I				
File <u>n</u> ame:	Taglist1.tlt			<u>S</u> ave
Save as <u>t</u> ype:	×.tlt		•	Cancel

# 8.4.6 Importing Taglists

Taglists can be imported to the Working Taglist from external \*.tlt files that are created by the ECB Taglist/Export function. Please note that only taglists exported from the same catalog of the same version ECB should be imported.

#### How to Import a Taglist

- 1. Save the current Working Taglist before importing the new taglist, if desired.
- 2. Click the Taglist pull-down menu (exhibit 8-33) and select the Import option.
- Exhibit 8-33. Pull-down menu to select Taglist Import

🔆 ECLS ECB - Catalog Name - [Creat					
🕌 <u>F</u> ile	9	<u>T</u> aglist <u>E</u> x	tract	Tools	<u>C</u> odebo
Narr	-	<u>N</u> ew Open	Ctrl+ Ctrl+		ABLE LI
Variat VAR1 VAR2 VAR3	_	<u>D</u> elete A <u>d</u> d <u>S</u> ave Save <u>A</u>	Ctrl-		escription LABEL 1 LABEL 2 LABEL 2
VAR4 VAR5 VAR6		Import Export			E LABEL 4 E LABEL 5 E LABEL 6
VAR7 VAR8	_				E LABEL I E LABEL I

- 3. You will be prompted to save the current Working Taglist if unsaved changes have been made. Save the taglist, if desired.
- 4. The Import Taglist From dialog box appears (exhibit 8-34).
- 5. Enter the file name for the taglist you want to import.
- 6. Click the Open button.

The Working Taglist will be replaced by the new imported taglist.

#### Exhibit 8-34. Import Taglist dialog box

Import Taglist	From				? ×
Look jn:	🔁 ECLS ECB	•	È	<del>d</del> *	
📄 db 🔊 Taglist1.tlt					
File <u>n</u> ame:	Taglist1.tlt				<u>O</u> pen
Files of <u>type</u> :	×.tlt		•		Cancel

## 8.4.7 Deleting Taglists

The ECB provides the capability to permanently delete previously saved taglists.

#### How to Delete a Taglist

- 1. Close the taglist currently displayed in the Working Taglist column by selecting the New option from the Taglist pull-down menu.
- 2. The Working Taglist will be replaced by a new taglist.
- 3. Click the Taglist pull-down menu and select the Delete option.
- 4. The Delete Taglist selection screen, shown in exhibit 8-35, appears with the taglists listed that may be deleted.
- 5. Highlight the taglist that is to be deleted and click the OK button.
- 6. A confirmation screen, shown in exhibit 8-36, verifies your intention to delete the taglist.
- 7. Click the Yes button to permanently delete the saved taglist.

Please note that you cannot delete the taglist that is currently open as the Working Taglist.

Exhibit 8-35. Delete Taglist selection

Delete Taglist	
Taglist 3 Taglist 4	
	OK Cancel

Exhibit 8-36. Delete Taglist confirmation window

Delete Taglist	X	1
Permanantly delete	e taglist Taglist 4?	
Yes	<u>N</u> o	

# 8.4.8 Viewing Codebook and Variable Information

The codebook for a taglist displayed in the Working Taglist column can be created, viewed, and printed from the ECB main screen. The codebook displays several pieces of information about each variable that are described in exhibit 8-37.

Field	Description
Question text	The question that was asked of the respondent by the interviewer or that was on the self-administered instruments.
Variable name/ Description	The name of the variable as it appears in the catalog and a brief description of its content.
Record number	The row number of the variable within the catalog data file.
Format	The format of the variable. The first character is either "A" or "N" for alphabetical or numeric. Most variables are numeric except the identifiers— which begin with an "A." The number following the "A" or "N" is the length of the variable. For numeric variables, the number after the decimal point is the number of decimal places.
Comment	Information to clarify specific information about a variable.
Position	The column number (position) of the variable within the catalog data file.
Response	A brief statement of each response code's meaning.
Codes	The numeric codes specifying each response.
Frequency	The numeric count of respondents providing the corresponding response code. The frequency counts are unweighted.
Percent	The percentage of respondents providing the corresponding response code. The percents are unweighted.

Exhibit 8-37. Codebook information

## How to View the Codebook for Tagged Variables

- 1. Complete any changes you wish to make to the displayed taglist.
- 2. Click the Codebook pull-down menu and select the View option.
- 3. The codebook for the current taglist opens in a new window as shown in exhibit 8-38.
- 4. Use the buttons described in exhibit 8-39 to navigate through the displayed codebook.

Exhibit 8-38. Codebook view

1 of 1 🕨 🕨	= 🛃 🛃 100% 💌
ECLS Electronic C	- d- b 1.
Catalog: Catalog N	
Catalog: Catalog H	me
Question text for vari	able # 1.
Variable Name	2 VAR1 VARIABLE LABEL 1
Record Number	: 1 - 1-1
Position	-
Format	: N1.0
Comment	: Comments for variable # 1.
	Unweighted
Response	Codes Frequency Percent
RESPONSE CATEGOR	
RESPONSE CATEGOR	2 2 900 90.0
	1,000 100.0%
Question text for vari	able #2
Variable Name	: VAR2 VARIABLE LABEL 2
Record Number	: 1
Position	: 2-2
Format	: N1.0
Comment	: Comments for variable # 2.
	Unweighted
	Codes Frequency Percent

Exhibit 8-39. Navigation buttons

Command button	Description
K	Click this button to change the displayed page to the first page.
	Click this button to change to the previous page.
	Click this button to advance to the next page.
	Click this button to change the displayed page to the last page.
	Click this button to discontinue a page change.
6	Click this button to print the codebook. Refer to the procedure below for steps on printing the codebook.
	Click this button to export the codebook to a different destination and save it as a different file format. Refer to the procedure below for steps on exporting the codebook.
100%	Click the drop-down arrow to select a display magnification of the codebook.

NOTE: The counter "1 of 1+" on the tool bar on top of the screen indicates the current page number and the last page number of the report. Users must navigate to the last page of the report to load the entire report. Once the user has viewed the last page of the report, the "+" sign will disappear and the correct last page number will show.

5. Once you have finished viewing the codebook, close the screen by clicking on the Windows "X" control located in the top right corner of the window. You may also close the window using the other standard Windows defaults: by clicking on the windows icon in the upper left corner and selecting Close, or by pressing <Alt> and<F4>.

## How to Print the Codebook

- 1. Complete any changes you wish to make to the displayed taglist. Note that including ALL variables in the taglist is not recommended, as this will create a very large codebook document that is unwieldy to print.
- 2. Go to the Codebook View screen as detailed above and select the Printer icon.
- 3. The Print dialogue box, shown in exhibit 8-40, will appear. Enter the print range and number of copies. Note that the codebook prints on your PC's default printer.
- 4. Select OK.
- 5. Click the Codebook pull-down menu and select the Print option.
- 6. The Printing Status screen, shown in exhibit 8-40, appears, and the codebook prints on your PC's default printer.

#### How to Export the Codebook

- 1. Complete any changes you wish to make to the displayed taglist.
- 2. Click the Codebook pull-down menu and select the View option.

#### Exhibit 8-40. Printing status screen

	Print		×
Printing Records	Printer:	System Printer (HP LaserJet 5S	і МХ) ОК
Copy: 1 Printing Page 5 Cancel Printing	Print Bar C <u>A</u> ll C Page Ere		Cancel <u>C</u> opies: 1 ✓ Collate Copjes

- 3. The codebook for the current taglist opens in a new window, similar to the one shown in exhibit 8-38.
- Click the Export codebook button: 4.

- 5. The Export codebook selection screen, shown in exhibit 8-41, appears.
- Exhibit 8-41. Export codebook selection screen

×		xport
	-	Format: Character-separated values
Cancel		Destination:
	<b>_</b>	

- Select the desired options from the Format pull-down menu and the Destination pull-6. down menu.
- 7. Click the OK button and complete any subsequent screens required for exporting the file.

Please note that exporting the codebook for a catalog in its entirety will take a long time due to the large size. In addition, users encountering difficulty with codebooks exported in Word format (due to variations in versions of Word or PC registry settings) should export the codebook using the Rich Text Format (RTF). The document can then be opened using Word or another text-based software package (Notepad, WordPad, TextPad, etc.).

The codebook and its variables can be selected to display their information from either the Variable List or the Working Taglist. The information that can be displayed for a variable includes the variable name and label, the question wording associated with the variable, the position and format of the variable on the data file, each response value and its label, unweighted frequencies, and the unweighted percentage distributions as listed in exhibit 8-37. The entire codebook can also be viewed after moving all of the catalog's variables to the Working Taglist. The following procedures describe how to view some or all codebook variables:

#### How to Display Information for a Single Codebook Variable

1. Locate the desired variable from either the Variable List or the Working Taglist. 2. Click the variable name to highlight it and press <ENTER> or double-click the variable name to view the variable information as shown in exhibit 8-42.

Exhibit 8-42. Variable Quick View

📓 ECLS ECB - Catalog Name - [Variable Quick View]			- 🗆 ×
Question text for variable #1.			
Variable Name : VAR1 (VARIABLE LABEL 1) Record Number : 1 Position : 1-1			
Format : N1.0 Comment : Comments for variable #1.			
Response	Code	Unweighted Freq.	Percent
RESPONSE CATEGORY 1	1	100	10.0%
RESPONSE CATEGORY 2	2	900	90.0%
Total		1,000	100.0%

The Variable Name is the only field that can be highlighted for displaying the variable's codebook information. Clicking on the variable description field will not activate the Variable Quick View.

3. When you are done reviewing the variable information, close the window by clicking the "X" in the upper right corner of the screen. This will return you to the main screen.

# How to Print Information for a Single Codebook Variable

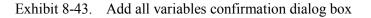
The ECB currently does not support printing the information for a single variable directly to the printer. If you must print the information for a single variable, follow these steps:

- 1. Double-click the variable to activate the Variable Quick View (see the previous "How to" section for details).
- 2. With the Variable Quick View being the active window on top, press <Alt> + <Print Screen> to save the image of the Variable Quick View window.

- 3. In any application that supports bitmap images (e.g., Microsoft Paint, Microsoft Word, etc.), paste the saved image.
- 4. Print the image to the printer using the print function of the application that you are using.

## How to Display and Print the Entire Codebook or Selected Pages

- 1. Move all of the catalog's variables displayed in the Variable List to the Working Taglist by clicking on the Tag All button.
- 2. Click the OK button of the Add All Variables Confirmation dialog box, shown in exhibit 8-43.



Add All Variables Con	firmation	×
Do you want to add all v	variables to your	taglist?
OK	Cancel	

- 3. All of the variables listed in the Variable List are now displayed in the Working Taglist.
- 4. Select View from the Codebook pull-down menu.
- 5. The entire codebook displays as shown in exhibit 8-44. Note that this view includes *all* variables in the catalog and spans several thousand. As noted above, printing a codebook document with all variables in the ECB is not recommended. The page number is in the upper left corner of the window.

Exhibit 8-44. View of the entire codebook

1 of 26	<u> </u>	🕨 = 💆 🛃 100	* 🔽			
CLS Electronic C	. da	book				
atalog: Catalog N						3/4/03
uestion text for vari	able	e #1.				
Variable Name	:	VAR1 VARI	ABLE LABEL 1			
Record Number	:	1				
Position	:	1-1				
Format	:	N1.0				
Comment	:	Comments for variable # 1.				
				Unweighted		
tesponse			Codes	Frequency	Percent	
RESPONSE CATEGOR	11		1	100	10.0	
RESPONSE CATEGOR	12		2	900	90.0	
				1,000	100.0%	
uestion text for vari	able	÷#2.				
Variable Name	:	VAR2 VARI	ABLE LABEL 2			
Record Number	:	1				
Position	:	2-2				
Format	:	N1.0				
Comment	:	Comments for variable $\%$ 2.				
				Unweighted		
				Frequency		

6. To print the entire codebook, click the printer icon displayed at the top of the codebook screen. Select All from the printer dialog box (exhibit 8-45). Enter the number of copies you want and click the OK button.

Exhibit 8-45. Printer dialog box

Print		×
Printer:	System Printer (HP LaserJet 5	Si MX) OK
Drint Day		Cancel
Print Bar	-	Copies: 1
• Page Er	esi om: 1 <u>I</u> o: 2	Collate Copies

7. To print selected pages of the codebook, select Pages from the printer dialog box. Enter the pages you want to print and the number of copies you want. Click the OK button. 8. When you are done viewing the entire codebook, close the window by clicking the "X" in the upper right corner of the screen. You will return to the main screen.

#### 8.5 Extracting Data From the ECB

Once the variables have been selected (tagged) for extraction and reside in the Working Taglist, the next step is to generate the code through which the statistical analysis software can retrieve and display the results. The ECB provides options for generating the code for analyzing data with the SAS, SPSS for Windows, or Stata statistical analysis programs.

To run these programs, you will need the appropriate statistical software and the ECB CD-ROM from which the program can extract data.

When extracting data to be used with either the SAS, SPSS for Windows, or Stata programs, a dialog box will be presented that allows the user to define the extract population through the Limiting Fields. See exhibit 8-46. The Limiting Fields include various subgroups of respondents that are typically of interest to analysts. These subgroups can be selected or deselected to narrow the data field that is extracted.

Also, please note that the ECB extract function allows the user to specify the drive letter of the CD-ROM drive. If you attempt to run the resulting SAS, SPSS, and Stata programs on a workstation with a different CD-ROM drive letter, you must alter the program code accordingly or regenerate the program code using the ECB.

The SAS, SPSS, or Stata source code generated by the ECB to read in the data may contain code statements that are "commented" out (e.g., with \* in SAS). These code statements either run descriptive statistics (e.g., frequencies, means, etc.) or associate formats with variables. They are commented out because not all analysts will want them included in the source code.

SAS users of versions prior to SAS Version 8 should note that although the ECB will allow dataset names larger than eight characters, the SAS system will reject these names at run-time.

## Exhibit 8-46. Limiting fields dialog box

	Label	Code	Select
VAR1	VARIABLE LABEL 1	RESPONSE CATEGORY 1 RESPONSE CATEGORY 2	Yes Yes
VAR2	VARIABLE LABEL 2	RESPONSE CATEGORY 1 RESPONSE CATEGORY 2	Yes Yes

Refer to appendix E for instructions on using and modifying the catalog-specific limiting variables.

## How to Extract a File to SAS Format

- 1. Complete any changes you wish to make to the displayed taglist.
- 2. Click the Extract pull-down menu and select the SAS option.
- 3. The Limiting Fields screen for the open catalog appears. Make your selections for each limiting variable indicator.
- 4. Verify that the ECB CD-ROM is loaded in your computer's default CD-ROM drive and then click the OK button.

5. Type the desired name of the extract program file in the file name field of the screen shown in exhibit 8-47.

Save As			? ×
Savejn:	🔁 ECLS ECB 💽 🖻	ď	<b></b>
С			
File <u>n</u> ame:	<		<u>S</u> ave
Save as type:	SAS Program Files (*.sas)		Cancel

Exhibit 8-47. Save SAS program file dialog box

6. To save the file to another directory, click the "Save in" drop-down menu button to browse to the new location, as shown in exhibit 8-48.

Exhibit 8-48. Save SAS program file location browse screen

Save As	?	X
Savejn:	😑 ECLS ECB 🔄 🖻 💼 📰	
C db	Desktop     My Computer     S½ Floppy (A:)     (C:)     Program Files     ECLS ECB     A     (D:)     S     (E:)	
File <u>n</u> ame:	<<< TYPE SAS PROGRAM FILE NAME >>> Save	]
Save as <u>type</u> :	SAS Program Files (*.sas)	

- 7. Click the Save button to store the file.
- 8. In the Save Data File As window (exhibit 8-49) type in the file name you want the data file to save to and then click Save.

Exhibit 8-49. Save SAS data file dialog box

Save Data Fi	e As ? X
Save jn:	🚖 ECLS ECB 🗾 🖻 📑 📰
db	Desktop  My Computer  3½ Floppy (A:)  (C:)  Program Files  ECLS ECC  20 (D:)  21 (E:)  V
File <u>n</u> ame:	<<< TYPE SAS DATA FILE NAME >>> Save
Save as <u>type</u> :	SAS data Files (*.sd2)

9. Run the saved extract program in SAS to extract the data.

## How to Extract a File to SPSS Format

- 1. Complete any changes you wish to make to the displayed taglist.
- 2. Click the Extract pull-down menu and select the SPSS option.
- 3. The Limiting Fields screen for the open catalog appears. Make your selections for each limiting variable indicator.
- 4. Verify that the ECB CD-ROM is loaded in your computer's default CD-ROM drive and then click the OK button.
- 5. Type the desired name of the extract program file in the file name field of the screen shown in exhibit 8-50.
- 6. To save the file to another directory, click the "Save in" drop-down menu button to browse to the new location, as shown in exhibit 8-51.
- 7. Click the Save button to store the file.

Exhibit 8-50. Save SPSS program file dialog box

Save As	? ×
Savejn:	🔄 ECLS ECB 💿 🖻 🖻 📰
ав	
File name:	
riie <u>n</u> ame.	
Save as <u>t</u> ype:	SPSS Program Files (*.sps)
l File <u>n</u> ame: Save as <u>t</u> ype:	<<< TYPE SPSS PROGRAM FILE NAME >>>     Save       SPSS Program Files (*.sps)     Cancel

Exhibit 8-51. Save SPSS program file location browse screen

Save As	? 🗙
Save in:	😑 ECLS ECB 💽 🖻 💼 📰
C db	Desktop  My Computer  3½ Floppy (A:)  (C:)  Program Files  (D:)  (D:)  (E:)  (E:)  (D:)  (D:)
File <u>n</u> ame:	<<< TYPE SPSS PROGRAM FILE NAME >>> Save
Save as <u>t</u> ype:	SPSS Program Files (*.sps)

- 8. In the Save Data File As window (exhibit 8-52), type in the file name you want the data file to save to and then click Save.
- 9. Run the saved extract program in SPSS to extract the data.

#### Exhibit 8-52. Save SPSS data file dialog box

Save Data Fi	le As		?	X
Save jn:	🔁 ECLS ECB 💽 💽		* 🔳	
C db	Desktop  My Computer  S½ Floppy (A:)  (C:)  Program Files  ECLS ECB  (D:)  (E:)  (E:)			
File <u>n</u> ame:	<		<u>S</u> ave	]
Save as type:	SPSS data Files (*.sav)	•	Cancel	

## How to Extract a File to Stata Format

- 1. Complete any changes you wish to make to the displayed taglist.
- 2. Click the Extract pull-down menu and select the Stata option.
- 3. The Limiting Fields screen for the open catalog appears. Make your selections for each limiting variable indicator.
- 4. Verify that the ECB CD-ROM is loaded in your PC's default CD-ROM drive and then click the OK button. Both a .do and a .dct file will be created.
- 5. Type the desired name of the extract program file in the file name field of the screen shown in exhibit 8-53.
- 6. To save the file to another directory, click the "Save in" drop-down menu button to browse to the new location, as shown in exhibit 8-54.
- 7. Click the Save button to store the file.
- 8. In the Save Data File As window (exhibit 8-55), type in the file name you want the data file to save to and then click Save.
- 9. Run the saved extract program in Stata to extract the data.

Exhibit 8-53. Save Stata program file dialog box

Save As		? ×
Save jn:	🔁 ECLS ECB 💽 🖻 📑	]
db		
File <u>n</u> ame:	<<< TYPE STATA PROGRAM FILE NAME >>> Save	
Save as type:	STATA Dictionary Files (*.dct)	

Exhibit 8-54. Save Stata program file location browse screen

Save As	? ×
Save jn:	🔄 ECLS ECB 💽 🖻 📑 📰
C db	Desktop  My Computer  3½ Floppy (A:)  (C:)  Program Files  (D:)  (D:)  (E:)  V
File <u>n</u> ame:	<<< TYPE STATA PROGRAM FILE NAME >>> Save
Save as <u>type</u> :	STATA Dictionary Files (*.dct)

Exhibit 8-55. Save Stata data file dialog box

Save Data Fi	e As ? 🗙	1
Save jn:	🔄 ECLS ECB 📃 🖻 📑 🗐	
🦲 db	Besktop  My Computer  Styre Floppy (A:)  C:)  Frogram Files  ECLS ECB  (D:)  (E:)  (E:)	
File <u>n</u> ame:	<<< TYPE STATA DATA FILE NAME >>> Save	
Save as <u>type</u> :	STATA data Files (*.dta)	

#### 8.5.1 Reviewing the Extract Specifications

Users should review the SAS, SPSS, or Stata program code that is generated before running it to check that any statements subsetting the data are correct. Note that the ECB sometimes outputs superfluous code for selecting cases; this code is consistent with extract specifications, but users may wish to delete it.

If a mistake in defining the criteria is made and it is not discovered until after writing out or running the extract program, it is very easy to correct if the taglist was saved before exiting the ECB program. Simply restart the ECB and select the appropriate catalog, open the taglist that you saved, define the extract criteria correctly, and produce the extract program again. The program should be reviewed before running it because it may need to be customized.

#### 8.5.2 Repairing and Compacting the Database

Periodically users may wish to repair and compact the database that contains the data of the ECB program. If many taglists are created and deleted on a regular basis, the database will contain lingering references to old taglists that are no longer needed. When the database is repaired and

compacted, the ECB program "cleans house" and makes the database more efficient. It also decreases the size of the database, so space is conserved.

## How to Repair and Compact the ECB Database

- 1. Select the Tools pull-down menu and select the Repair and Compact Database option.
- 2. After a few seconds, the screen shown in exhibit 8-56 appears indicating that the repair and compact of the database was successfully completed.

Exhibit 8-56. Repair database completed screen

Repair and Compact 🛛 🕅 🕅		
<b>i</b>	Repair and compact completed successfully.	
	OK	

3. Click the OK button.

# 8.6 Menu Bar Descriptions

Exhibit 8-57. Menu Bar descriptions

ECLS ECB - Catalog Name - [Create Taglist]		
<u>File</u> Open Catalog Print Se <u>t</u> up E <u>x</u> it	<ul> <li>The File menu contains the commands needed to do the following:</li> <li>Select and open a catalog;</li> <li>Set up your software for printing; and</li> <li>Exit the ECB.</li> </ul>	
TaglistExtractTooNewCtrl+NOpenCtrl+ODeleteAddSaveCtrl+SSave AsImportExport	<ul> <li>The Taglist menu contains the commands required to manipulate the variable lists once a catalog has been selected:</li> <li>Create a new taglist;</li> <li>Open a previously saved or predefined taglist;</li> <li>Delete a previously saved taglist;</li> <li>Add a previously saved or predefined taglist to the working taglist;</li> <li>Save the working taglist;</li> <li>Save a taglist with another name;</li> <li>Import a previously exported taglist as a working taglist; and</li> <li>Export the working taglist for distribution.</li> </ul>	
Extract SAS SPSS (Windows) STATA	<ul> <li>The Extract menu contains options to create a syntax file for the following:</li> <li>SAS;</li> <li>SPSS for Windows; and</li> <li>Stata.</li> </ul>	
Tools Repair and Compact Database	The Tools menu contains the command for repairing and compacting the database.	
<mark>⊆odebook</mark> ⊻iew <u>P</u> rint	<ul> <li>The Codebook menu contains the commands for the following:</li> <li>Viewing the codebook based on the working taglist; and</li> <li>Printing the codebook based on the working taglist. As previously noted, users are cautioned against printing the codebook for the entire ECB.</li> </ul>	
Help Contents About	The Help menu provides access to an online help system when such a system exists. The ECLS-K:2011 ECB does not have a help system.	

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#### APPENDIX A

#### DATA ANOMALIES AND ERRATA

This appendix provides information on data anomalies and errata, which are referenced in the data considerations section at the beginning of this manual. Those listed here were identified during the editing and review of these data and represent anomalies and errors known at the time this manual was prepared. Other anomalies and errata may exist in the data. This section also discusses one other issue for users to consider when analyzing the data, additional categories that were added for coding some openended questions. Appendix A of the user's manual provided with the restricted-use data documents more anomalies and errata than are described here. The material appearing below has been revised to be suitable for public release by removing references to issues that can only be seen or fixed, or both, in the restricted data. For example, information about incorrect values for specific, listed cases has been removed if the affected variables are suppressed or if the specific values have been masked through categorization in the public file. An exception is that issues with the instrumentation used to collect the data and reporting errors that affect many cases are described even if the only data affected are restricted; this allows analysts who might be interested in those data to decide whether the issues are significant enough to keep them from requesting access to the restricted data.

The information presented here will be more easily understood, and is most useful, *after* the survey items or variables to be used in analyses have been identified. Each anomaly, error, or data consideration is associated with a specific survey question or variable in the data file (or both). Rather than read through this entire appendix, users may find it easier to identify any issues associated with their data of interest by searching on the survey question number, variable name, or key word in this appendix. For example, an analyst who is interested in information about treating ear infections with ear tubes could search (1) CHQ110, which is the number of the question in which this information was asked in the parent interview; (2) P1U2TUBE, which is the name of the variable in which data on ear tubes from question CHQ110 is stored; and (3) "ear," "tube," or "ear tube."

These anomalies, errors, and considerations are noted so that users are aware these issues with the data exist. However, leaving the anomalous or erroneous data as they are will not significantly affect most analyses, because the number of cases affected is generally very small. An exception to this is the programming errors that affect entire groups of cases that should have been asked certain questions. Additionally, analyses focused on a small subpopulation or examining rare characteristics could be

significantly affected by data issues with even a small number of cases. Therefore, analysts doing such analyses should consider the impact these data issues may have on their results.

This appendix is organized as follows:

## Parent Interview

- Fall 2010 anomalies and errata
- Fall 2010 errors in the CAI programming
- Spring 2011 anomalies and errata
- Spring 2011 errors in the CAI programming

# Hard-Copy Questionnaires

- School Administrator Questionnaire
- Teacher Questionnaires
- Before- and After-School Care (BASC) Questionnaires
- **Composite Variable Anomalies, Errata, and Considerations**
- Other (Specify) Variables

#### Parent Interview: Fall 2010 Anomalies and Errata

There are 9 cases for which a father/male guardian was identified after data collection (CHILDID=10015236, 10015552, 10011399, 10016048, 10001140, 10002341, 10004530, 10006902, 10009138). Because no father/male guardian was identified during the interview, these cases followed the skip specifications for households with no father/male guardian and were not asked questions about the father, including fathers' race/ethnicity. The race and ethnicity items for these cases are set to -9. In the spring 2012 data, the fathers that were erroneously left out of the household roster in fall 2010 were added to the roster. In one case, by spring 2012, the father/male guardian left and was no longer in the household. In two other cases, there was no spring 2012 parent interview.

- There are 7 cases where a household member has valid race/ethnicity data but does not appear to meet the design criteria for collecting this information (CHILDID=10004013, 10004059, 10010110, 10017053, 10004449, 10015181, 10017209). This inconsistency resulted from post-data collection editing. Since each of the cases involves the spouse of the respondent (who is a parent figure), the race data were retained because they were used in the parent composites and statistical processing.
- There is 1 case (10018131) where PLQ060 (P1PRMLNG)<sup>1</sup> is missing (-9) and the second set of PLQ items are set to -9. For this case (10018131), the focal child's adoptive parents are in roster positions 1 and 3 (P1 and P3). These parents, who are the respondent and respondent's spouse, are likely to also be the child's grandparents based on age and last name. The household also contains the child's biological mother (P4) and the child's stepfather (P5). Because the grandparents were initially identified as parents, the items in section PLQ were asked of the respondent ("adoptive father," who may be the grandfather), and the child's biological mother. When the data were corrected in editing, the biological mother's PLQ data were stored in the first set of PLQ items, and the second set of PLQ items were set to -9 (as the information was NOT collected about the stepfather).
- For case 10005685, the interviewer initially completed the interview through CCQ, backed up and changed responses to some previously completed items (consequently changing the skip patterns that should have been followed in the interview), and then broke off the interview after CCQ260 (P1CTRNOW). As a result, some items PRIOR to the final breakoff point that should have been asked were skipped. In particular, the interviewer changed the response to PLQ020 (P1ANYLNG) (are any languages other than English spoken in your home?) from NO to YES, thus rerouting the case to some items dependent upon a "yes" response to PLQ020. Items HEQ020 (P1NOENG), HEQ035 (P1RDOTHL), and HEQ045 (P1BKOTHL) are three of those items. These variables have been set to -9 for this case.
- Case 10016933 has multiple problems with data collected in section CCQ. The interviewer completed the interview through section CCQ and then backed up to question CCQ030 (P1NUMREL). At that point the case broke off, deleting the information that had been collected for the remaining questions in this section.
- There are cases in the fall parent interview where the relationship between the respondent and the respondent's spouse seems unusual. For example, the respondent identified himself or herself as an aunt, uncle, other relative, or other nonrelative, but indicated that he or she was married or partnered with the child's parent/guardian. Users should review the data for these cases to ensure that the responses make sense for their analyses. For 4 of these cases (CHILDID= 10000159, 10012776, 10013246, and 10017311), it is likely that a family member was serving as an informal translator

<sup>&</sup>lt;sup>1</sup> Throughout this document, the interview item number is referenced followed by its corresponding variable name. For example, PLQ060 (P1PRMLNG) refers to the interview question "What is the primary language spoken in your home?" and its corresponding variable name is (P1PRMLNG). Question wording for all interview item numbers and variable names can be located by searching the Electronic Codebook (ECB). The data collection instruments are also available in Appendix A on the CD-ROM and online at <u>http://nces.ed.gov/ecls</u>.

and did not always report the family relationships consistently during the interview. For example, in case 10012776, the respondent was a teenage biological sister who indicated that she was married to the biological father. It is more likely that the sister was acting as a translator for the biological mother (who was also in the household), and her response indicates that the biological parents were married to each other. However, for case 10002814, for example, it looks like a child was responding accurately for his non-English speaking mother. For 3 other cases (CHILDID=10009077, 10018019, 10012320), the respondent was an aunt or other female relative and had a spouse who was the father/male guardian. In the first two cases, it is likely that the respondent was also the female guardian. In the third case, a grandmother respondent was in the household with a mother and father, with the father reported as her spouse/partner.

- There are 10 cases that appear as if they should not have been asked about contacting the care provider for the Before- and After-School Care (BASC) component because data in the data file indicate that the children either were not in care for 5 or more hours or the information needed to determine whether the case was eligible for the BASC component was missing (10011376, 10015028, 10007620, 10009465, 10004647, 10009721, 10008690, 10002848, 10013574, 10008905). For each of these cases, the parent initially indicated that the child had eligible care but then refused to give the contact information for the caregivers. The interviewers then backed up for these cases, changing the answers, but the consent to contact variable CCQ380 (P1CONTCC) had already been set equal to 2.
- One case (CHILDID=10002529) appears to have a data entry error for NRQ040 (P1BDCON). In the answers about who was in the household, the household had an adoptive mother, no adoptive father, and no biological parents. The biological parents were nonresident parents and were reported to be living. In section NRQ, which asks about contact with a nonresident parent, it appears the interviewer incorrectly coded the variable P1BDCON (NRQ040) for an "adoptive father" when a "biological father" should have been selected.
- Sections PLQ, PEQ, and EMQ can have -9 values for the individual parent items if the parent was not appropriately identified in FSQ during the interview. For example, for case 10002341, person 3 was initially identified as an "other" nonrelative. Subsequent coding of the other (specify) text indicated that person 3 was actually the child's stepfather. Because he was not properly identified in FSQ, the CAI program did not ask questions about him in sections PEQ or EMQ. As a result, valid EMQ data are available for the mother and for the last few household-level items in section EMQ, but data from section EMQ are all missing for the stepfather. Other cases affected by not having household members identified correctly are 10000652, 10001946, 10007293, 10008007, 10011256, 10001510, 10006671, 10008963, 10014397, 10015552, 10018131, 10000618, 10007934, 10004744, and 10017336.

## Parent Interview: Fall 2010 Errors in the CAI Programming

- The CAI programming for Box 5 in section MHQ of the fall parent interview did not follow the programmer specifications. Cases with respondent biological parents who were never married and never lived together were inadvertently skipped over MHQ175 (P1BIMMAR) and MHQ180 (B1BIMLIV); this skip is not specified in the Box 5 programmer specifications. According to Box 5, only cases for which the biological mother was married/living as married at the time of child's birth should have skipped MHQ175/180 (P1BIMMAR/B1BIMLIV).
- The CAI programming for Box 3 of HRQ did not follow the specifications. For cases for which the biological mother was not living (HRQ030 (P1NRMOLV=2)) AND the mother's birth year was not provided (HRQ040B (P1BIOBY=-7 or -8)), questions about the mother's age at and year of death were mistakenly not asked. Cases affected by this error were mistakenly skipped to question HRQ090 (HRP1MOMHSP).

The same problem occurred for biological fathers. If the biological father was not living (HRQ030 (P1BIDLIV=2)) AND the father's birth year was not provided (HRQ040B (P1BIODBY=-7 or -8)), questions about the father's age at and year of death were mistakenly not asked. Cases affected by this error were skipped to question HRQ090 (P1DADHSP).

- The CAI programming for Box 3 in section NRQ and Box 1 in section CFQ did not match the programming specifications. Box 3 in section NRQ indicates that if the response for HRQ030 (P1NRMOLV, P1BIDLIV) was 2, 3, 8, or 9 (parent not living, don't know biological parent, refused, or don't know, respectively), the case should skip to Box 4, therefore NRQ040 was not asked and was assigned a value of -1. Cases for which NRQ040 is -1 were not routed to CFQ010 (P1LIKMOM) and CFQ020 (P1GRNDMA, P1BIOMTHR, P1STPMOM, P1ADPTMA, P1FOSMOM, P1RESPM, P1TCHMOM, P1CLGMOM, P1AUNT, P1SIBMOM, P1FRDMOM, P1SITMOM, P1OTHMOM, P1NONRMA) as they should have been according to the programmer specifications. Because a large number of cases (about 150) were incorrectly skipped out of these items and the error was not random, users should not use these data.
- There are over 300 cases where CFQ030 (P1LIKDAD) and CFQ040 (P1GRNDPA, P1BIOFTHR, P1STPDAD, P1FOSDAD, P1RESPD, P1TCHDAD, P1UNCLE, P1SIBDAD, P1FRDDAD, P1SITDAD, P1OTHDAD, P1NONRDA) were skipped because respondents indicated that the biological father was not alive, they did not know who the nonresident father was, or the respondent answered "refused" or "don't know" to HRQ030 (P1BIDLIV). Because a large number of cases were incorrectly skipped out of these items and the error was not random, users should not use these data.
- There are two different problems related to the skip instructions in Box 3 of section EMQ. The first is a design error and the second is a Blaise programming error. Because of the design error, cases with two responses to EMQ070 that included an answer of 1, 2, 3, 4, or 5 in combination with a 6 were routed to Box 4 and skipped EMQ100 (P1TAK\_1, P1TAK\_2). The programming error was such that the program

did not follow the design whenever there was an answer of 91 in combination with any other answer in EMO070. According to the specifications in Box 3, a response of 91 for EMQ070 should have routed a case to EMQ100 (P1TAK 1, P1TAK 2). For example, if responses of 6 and a 91 were provided for EMQ070, the response of 91 should have led to EMQ100 being asked, but it was not. The same is true for answers such as 1, 6, and 91. The data have been edited in the data file so that all cases with a response of 1 through 5 or 91 for EMQ070 have either valid data or -9 for EMQ100, and all other cases have EMQ100 set to -1 (indicating they were correctly skipped out of this question). Additionally, three cases (10000652, 10011256, and 10008007) have P1TAK 1 set to -9 because they had an answer of "don't' know" for the parent figure's sex. One case (10000552) also had P1TAK 2 set to -9 because of a "don't' know" answer for the second parent figure's sex. There is also a case (10000652) set to -9 on P1TAK 2 because the stepfather was initially coded as an "other nonrelative"; subsequent coding of the other (specify) text for this case identified the individual as a stepfather. Because he was not appropriately identified as a parent figure during the interview, questions were not asked about this parent in section EMO.

Section CMQ was supposed to contain skip instructions so that CMQ695 (P1WHRITV/P2WHRITV), which asks where was the interview conducted, was only asked for interviews conducted in person. That skip was mistakenly omitted and CMQ695 (P1WHRITV/P2WHRITV) was asked of everyone. Because most interviews were conducted on the telephone, the interviewer did not really know where the respondent was at the time of the interview. Information in CMQ695 is only meaningful for interviews that were conducted in person. Users may wish to set CMQ690 (P1WHRITV/P2WHRITV) to -1, (not applicable) for cases completed by telephone or for which the mode was not ascertained, CMQ680 (P1MODE=1 or -9.)

#### Parent Interview: Spring 2011 Anomalies and Errata

There are cases in the parent interview where the relationship between the respondent and the respondent's spouse seems unusual. For example, the respondent identified himself or herself as an aunt, uncle, other relative, or other nonrelative, but indicated that he or she was married or partnered with the child's parents/guardian. Users should review the data for these cases to ensure that the responses make sense for their analyses. For 3 of these cases (CHILDID=10010293, 10006123, and 10017404), it is likely that a family member was serving as an informal translator and did not always report the family relationships consistently during the interview. For example, for CHILDID=10010293 the respondent was a teenage sister and her spouse was the child's father. There are 13 cases where the respondent appears to have been both the aunt or grandmother or cousin and female guardian. Also the respondent may report his or her spouse's relationship to the child as father/male guardian when the spouse may also be considered the grandfather or uncle or partner of the guardian. These situations apply to the following cases: 10008789, 10007742, 10018019, 10018054, 10014059, 10015399, 10000272, 10016886, 10000679, 10011509, 10016442, and 10013393. There are 3 other cases (CHILDID= 10016155, 10012789, 10016745) where the grandmother's spouse is listed as the child's uncle. An additional case (CHILDID=10007257) lists the respondent as a half-sister and her spouse as a halfbrother. There are 3 cases (CHILDID=10009281, 10005906, and 10000788) where the interviewer may not have picked the correct person from the fall household roster as the respondent.

- There are some household members that have data for race and ethnicity even though the rules in the specifications indicate that they would not be asked these questions. One reason for this is that there were different household members in fall 2010 than in spring 2011. For example, in fall 2010, if a nonrelative female was the respondent and the grandfather was the nonrelative's spouse, and there was not a parent in the household, race and ethnicity would be asked about the nonrelative female and her spouse, the grandfather. This is because if there are no parents in the household, the race and ethnicity questions are asked about the respondent and his/her spouse/partner. If there are parents in the household, the race and ethnicity questions are only asked about the parents. In spring 2011, if these household members were still in the home, but the biological mother moved in, race and ethnicity would be asked about the biological mother, and the race of the grandfather and his spouse would also be carried forward despite the fact that their race data does not fit the skip pattern for race data collection in spring 2011. The race and ethnicity of these household members were retained so that if the household composition changed in the future and the grandfather and his nonrelative spouse were candidates for race data collection again, race and ethnicity would not need to be collected a second time for the same people. In other cases, there are household members with values for race and ethnicity because an interviewer initially set the family structure section (FSQ) relationship codes such that we collected data for the spouse/partner of the respondent, but then the interviewer backed up and changed the relationship values such that the spouse/partner was no longer eligible for the race and ethnicity questions. The race data were eliminated from section FSQ in these instances, but the data were not removed from the permanent roster. In each of these instances, the spouse is actually one of the two parent "figures" in the household; thus the race and ethnicity data for these individuals were retained.
- For 1 case (CHILDID=10011120) the respondent is identified in the data as the grandfather, but during the process of data cleaning it was determined that the respondent was actually the child's biological mother.
- For 1 case (CHILDID=10017805,) the grandmother began the interview, but the father took over the interview at item PIQ090 and answered the remaining questions.
- There are 83 cases that do not have household roster information. These 83 cases all have a value of -9 for X2RESID (round 2 respondent roster number). These 83 cases include 81 cases that did not respond to the fall kindergarten parent interview and completed the SPQ section of the spring kindergarten parent interview (which included questions only asked of fall nonrespondents) but did not complete the FSQ section (family structure questions) in the spring. Two of the 83 cases (10006399 and 10016064) have incomplete household roster data in section FSQ due to a bug in the Blaise application that was subsequently fixed. In both cases the household roster questions were erroneously skipped due to the Blaise issue, but marital status was asked in FSQ200 (P2CURMAR) and answered. Unfortunately, without the household roster information, it is not possible to indicate which household member is the

respondent's spouse, so FSQ120 (P2SPOUSE) for these cases is set to -9. There is also one additional case (10014051) that has missing household roster data because the case broke off in the household roster before it was completed and before questions about the household members' relationship to the study child were asked.

- Cases 10005155, 10006399, 10009174, 10014653, 10016064 are otherwise complete interviews that had problems with the household roster information resulting in data being missing in sections of the interview that are dependent upon the roster data to route respondents through the sections. Two of these cases completed the interview with no household roster (CHILDID=10016064 and 10006399). The others had roster data entered after the interview.
- There are 5 cases that have P2HIG\_1 and P2HIG\_2 set to -1. As noted above, two of these cases (CHILDID=10006399, 10016064) do not have household roster data because of a technical problem in the interview program that was corrected after these interviews were completed. The composite variables associated with household composition and child and parent characteristics are coded as -9 (not ascertained) for these cases. For another two cases (CHILDID=10009174, 10014653), the household roster data are included in the data file, but the cases were incorrectly skipped out of the FSQ question asking about parent's country of origin (FSQ212 (P2PARCT1, P2PARCT2)) and highest level of education (FSQ221 (P2HIG\_1, P2HIG\_2)); thus these variables are set to -9. These two cases originally did not have data in the household roster (thus causing the skip error), but the data were entered later from updates from the field. The remaining case (10005155) is a partially complete case that broke off after the question about parent's country of origin was asked.
- The structure of the questionnaire was such that when asking for information about the parents or guardians, a set of questions within a section was first asked about parent 1, and then the same set of questions was asked about parent 2. In the fall in opposite-sex parent households, questions were first asked about the "key female" (mother/female guardian) in the household, and then asked for the "key male" (father/male guardian) in the household. In the spring, the order was changed, and information was collected for the father/male guardian first, then for the mother/female guardian. In both the fall and spring, data for the mother/female guardian are stored in the parent 1 variables and data for the father/male guardian are stored in the parent 2 variables. In the spring, there are some cases that have country of origin and education information for parent 2 (the male parent figure) but not for parent 1 (the female parent figure), because for various reasons this information was collected for fathers but not for mothers. For example, if the data were collected for fathers, then the interview broke off before the questions could be asked for mothers.
- Ages for household members other than the child were not incremented from fall to spring. However, because of editing and interviewer comments, there are six cases for which a household member's age changed from the fall to the spring interview (CHILDID=10001976, 10009790, 10002814, 10001513, 10015099, 10008501).
- There are 11 cases for which the age the parent first moved to the United States, as reported in FSQ213 (P2PAREM1, P2PAREM2), is older than the parent's current age (X2PAR1AGE/X2PAR2AGE) (CHILDID=10005643, 10012331, 10010416,

10015360, 10003657, 10016569, 10007079, 10014856, 10007293, 10013381, and 10003870.) The interview was designed to prompt the interviewer to verify if such inconsistent information was correct before continuing with the interview. This was done to prevent interviewer entry errors. However, the consistency check allowed for the age the parent moved to the United States to be older than the parent's current age in case the age recorded for the household member in a previous interview or in the current interview was incorrect. Three of these 11 cases (10005643, 10007293, 10003870) included interviewer notes indicating correct ages that were used to update the data. No additional information is available for the other cases.

One case (CHILDID=10002307) does not contain data in section SSQ although there are data for a later section (DWQ). The interviewer entered data through section DWQ and then returned to section SSQ, deleting some of the data. The interview ended before the interview was complete. Data in section SSQ have been coded -9.

# Parent Interview: Spring 2011 Errors in the CAI Programming

- There is an error in Step 4 of Box 2 in section NRQ; an "or 2" phrase should have been included in step 4. This error resulted in households with both an adoptive father (identified in FSQ150 (P2DAD\_\*=2)) and an adoptive mother (identified in FSQ140 (P2MOM\_\*=2)) mistakenly being asked about a nonresident adoptive father.
- For case CHILDID=10012336, the biological father was mistakenly identified as an adoptive father in the fall. Thus, in section NRQ the interview asked about a nonresident biological father even though section NRQ was not applicable for this respondent in either the fall 2010 or spring 2011 interviews, given the presence of a biological father in the household.
- In section NRQ, there are about 330 cases that should have been asked the child support questions: NRQ261 (P2CSCRT, P2CSWRT, P2CSINF, P2CSPEN, P2CSNOAG, P2CSOTH); NRQ265 (P2RECPAY); NRQ266 (P2PAYREG); and NRQ264 (P2CSBIOF, P2CSBIOM, P2CSADPF, P2CSADPM), if relevant, but were not because the programming instructions in Box 5 mistakenly resulted in these cases, for which NRQ040 (P2BMCON, P2BDCON) was equal to 4 "no contact since birth," being skipped out of those questions. In Box 5, the specifications exclude nonresident parents for whom the response to NRQ040 (P2BMCON, P2ADMCON, P2BDCON, P2ADMCON, P2BDCON) is 5 (parent deceased), 6 (no contact since adoption), 7 (no adoptive mother/father), or 8 (parent unknown/only a donor), but not 4 (no contact since birth). Subsequently, those same 330 or so cases were not considered in the specifications in Box 6 used to determine whether NRQ264 would be asked.
- A programming error in the spring CAI instrument caused the relationship data collected in the household roster in the fall to be eliminated when an interviewer opened a case and then closed the case without entering any new household roster data. This error was fixed as soon as it was identified during data collection, but roughly 240 cases were affected before the error was fixed. The fall relationship data were restored for these cases because the fall data accurately reflected the spring household composition (since no new roster data needed to be entered for these cases

in the spring). However, this caused problems with the skip patterns for questions in sections CFQ, DWQ, NRQ, and PPQ that are based on the presence or absence of parents in the household. This is reflected in the larger number of cases coded -9 for some of the variables pertaining to these sections. Other cases are coded -9 on these variables because they broke off the interview or there were changes made to the household composition as a result of data editing.

- In section CFQ, programming errors caused 219 cases to skip question CFQ100 (P2RELSHP) and 274 cases to skip questions CFQ300 (P2DADHOM) and CFQ310 (P2DADHM2).
- In section DWQ, box 1 determined if the respondent was the mother/female guardian or father/male guardian; if so, items DWQ010 (P2WARMCL) through DWQ060 (P2FLANGR) were asked of that parent/guardian. DWQ010 through DWQ060 were to be asked of a nonparental respondent only if there were no parents or guardians currently living in the household. For 221 cases, it was mistakenly recorded that there was at least one parent/guardian in the household; therefore, DWQ010 through DWQ060 were not asked of the nonparental respondent when they should have been.
- Similar to the issue noted above for section DWQ, in section PPQ, for 240 cases it was mistakenly recorded that there was at least one parent/guardian in the household, and thus items PPQ100 (P2BOTHER) through PPQ260 (P2RPRVHP) were not asked.
- There are 64 cases that are coded -9 for PPQ270 (P2BFNDHP) and PPQ280 (P2BFRVHP) that are not breakoffs. Of these 64 cases, 48 were edited after the interview was completed to show a biological parent in the household who was not the respondent. If it had been known there was a biological parent in the household during the interview, PPQ270 (P2BFNDHP) and PPQ280 (P2BFRVHP) would have been asked. The other 16 cases were not asked these questions because of the problem described above that caused the fall relationship data to be deleted.

#### Parent Interview: Spring 2011 Problems with the Spanish Translation

There were problems with the Spanish translation for three questions in the parent interview that could have resulted in parents who were administered the interview in Spanish interpreting the items differently than parents who were administered the interview in English. Variables P1LANGUA and P2LANGUA can be used to identify those cases for which the parent interview was conducted in Spanish in the fall and spring data collections, respectively.

Questions FSQ140 and FSQ150 ask parents to identify the specific relationship of the mother and father figures in the household to the study child. Category 4 is meant to be used for foster mothers and other legal guardians, while category 5 is meant to be used for other guardians or parental figures who are not legally in charge of the affairs of the child. However, the Spanish text for category 5 referred to "another maternal figure or legal guardian" ("otra figura materna o guardiana legal"), which could have

led parents who were interviewed in Spanish to report legal guardians in category 5. Researchers may wish to combine categories 4 and 5 for their analyses.

- In English, question HEQ310 included baseball as an example in the question text. Baseball was omitted as an example in the Spanish text.
- In English, question FDQ130c asked parents how true it was that the family "couldn't afford to eat balanced meals." The Spanish translation asked parents how true it was that the family "couldn't afford to eat more balanced meals" ("una alimentación más balanceada").

# Hard-Copy Questionnaires

# School Administrator Questionnaire: Spring 2011

- Administrators were asked to report the average daily attendance at school as either a percentage (S2ADA, question A4) or as the average number attending. In some cases, administrators reported both a number and a percentage, and the calculation of the percentage using the number attending and total school enrollment was different from the reported percentage by more than could be attributed to rounding; the reported percentages were retained.
- About 755 children attended schools in which the administrators reported that zero percent of students come from the local neighborhood (school administrator questionnaire, question A8).
- School administrators were asked to report the date by which children were required to turn 5 years old in order to start kindergarten (question A11, S2NOCUTO, S2MMFIVE, S2DDFIVE, S2YYFIVE). More than 5,000 of the 18,174 children in the base-year data file attended schools in which the administrators reported a year of 2009 or earlier. This suggests that these school administrators misinterpreted the question as referring to birth date rather than the date the child turned age 5.
- About 255 children attended schools in which the administrators reported in A10 no half-day kindergarten classes (S2HLFKIN) but reported wrap-around care for half-day kindergartners (S2HLFDAY, question C1b).
- At the beginning of section F of the school administrator questionnaire (concerning Title I and Title III programs), administrators of private schools were instructed to check a skip box and go to section G. In some cases, administrators of private schools did not do so, and in other cases, administrators of public schools did so. Data for children in schools for which the administrator checked the box and skipped to section G are coded as -1 (not applicable) on the section F items; data for children in schools for which the administrator did not answer the questions are coded -9 (not ascertained).

- Eighty children attended public schools in which the administrators reported that third-graders attended the school and reported requirements for adequate yearly progress (AYP) in reading, math, or science of 0 to 7 percent (S2RDPTRQ, S2MTPTRQ, S2SCPTRQ, question F12).
- There are 153 children who attended schools in which administrators reported time spent each week on several activities at item H5 (S2INSTRU, S2INRMGT, S2DISCAT, S2MONITR, S2TEACH, S2TALKPT, S2STUDNT, S2PPRWRK) that sum to more than 168, the total number of hours in a week.

# **Teacher Questionnaire: Fall 2010**

- There was some inconsistency in teachers' reporting of information about classroom characteristics across columns for morning, afternoon, or full-day kindergarten classes. Some teachers used columns inconsistent with the class type(s) they reported. When possible to do so unambiguously, the data were realigned to match the class type reported by the teacher.
- There are discrepancies between the reported individual student counts by age, sex, and race and the sums of students the classroom. For these three questions (age, sex, and race of students in the classroom), the sums were calculated based on the individual counts and comparison against the other count questions.

#### **Teacher Questionnaire: Spring 2011**

• One teacher reported completing the questionnaire in November, 2011. However, this questionnaire was received in April, 2011.

# Teacher Questionnaire B (New Teachers): Spring 2011

• One teacher reported completing the form in October, 2011. However, this questionnaire was received in in May, 2011.

# Before- and After-School Care Teachers/Care Providers, Child-Level Questionnaire (WCQ)

- Question 9 (Z2LNGTCH) was formatted as a "mark one" question though the language of the question was such that it read as a "mark all that apply" question. Providers who provided more than one response have Z2LNGTCH set to -9 (not ascertained).
- There are two cases (0312014 and 0470020) for which the youngest calculated ages and age unit (Z2CHDAGE and Z2AGUNIT) are unexpectedly high (e.g., 607 months old). The providers' questionnaires were reviewed, and the data are as reported by the providers.

■ There are two cases (0324004 and 0324007) linked to the same provider where the number of hours of adult-directed whole class activities (Z2WHLCLH) reporter by the provider is 25. The providers' questionnaires were reviewed, and the data are as reported.

# **Composite Variable Anomalies, Errata, and Considerations**

Chapter 7 of this manual provides detailed information about the composite variables that were created and included on the data file. In this section, several data considerations related to the composite variables are described. Analysts are encouraged to carefully review the descriptions of the composite measures of interest to them in chapter 7.

- The computer-assisted interview (CAI) application for the ECLS-K:2011 parent interviews was programmed in a way that did not capture information on both parent figures in a small number of households. As described in chapter 7, missing values were imputed for parent education (X12PAR1ED\_I and X12PAR2ED\_I) and parent occupational prestige (X1PAR1SCR\_I and X1PAR2SCR\_I). In a small number of cases, however, the second parent was identified after imputation took place and, as a result, these cases have missing data for X12PAR2ED (10017525, 10016769, 10017336, 10001179, and 10012475).
- In two households (10016769 and 10017525), the spring 2011 respondent refused to provide information (name, age, sex, etc.) about the other parent. In one of these cases, the father respondent appears as parent 1 (X2IDP1) due to the absence of information about the other parent figure, who is identified as parent 2 (X2IDP2). In the other case (10017525), the biological mother respondent appears as parent 1 (X2IDP1) and her spouse/partner appears as parent 2 (X2IDP2). In this case, the biological mother would have appeared as parent 1 regardless of the sex and relationship of the other parent to the child.
- For case 10018131, the child is reported as having two father figures and two mother figures in the household. The detailed relationship questions indicate that the household contains the biological mother and stepfather, as well as two older persons identified as adoptive parents. Based on established priorities for the designation of parents, the biological mother and adoptive father were chosen as parent figures for whom the composite variables were created. Analysts will wish to use their own judgment in how to treat the adult household members in their own analyses.
- As noted above, there are 83 cases without information on household members. Most composite variables based on the parent interview are coded as not ascertained (-9) for these cases. These 83 cases can be easily identified by specifying X2RESID (the spring 2011 respondent ID) = -9. An additional case (10014051) is coded -9 for X2IDP1, X2IDP2, and other household composites because the respondent ended the

interview before data about additional household members or their relationship to the study child could be obtained.

- There are two cases (10007781 and 10012950) where the coding of the composite race variable X2PAR2RAC may appear to be anomalous. In these cases, race and ethnicity were asked twice for the same parent, because that parent was listed twice during the enumeration of the household members, and race was reported differently in each instance. The final composite variable value was based on an assessment of the responses.
- The ECLS-K:2011 was not designed to specifically identify whether a child sampled for the study was a twin or sibling of another sampled child. Following the base-year data collection, attempts were made to determine whether any of the children had a twin in the study by matching information on their school, date of birth, last name, and race. See chapter 7 for more information on the identification of twins and the variables X12TWIN and TWIN\_ID.
- There are cases identified as having twins in which the siblings were listed in the one twin's interview, but section FSQ was not completed in the other twin's interview (10000652/10007287, 10001609/10000322, 10003290/10009465, 10004865/10001271, 10004984/10017615, 10007319/10017174, 10008007/10016793, 10009910/10008721, 10013415/10013189, 10014926/10014579, 10015026/10007194, 10015417/10009390).
- There are some twin pairs that have different ages listed in the household matrix for the twin in one of the two interviews. All twin pairs have the same birthdate, but there were differences in the reporting of ages. For example, the twin is listed in the household matrix as the same age as the focal child in cases 10000128, 10005321, 10014435, 10012521, and 10011688; however, in the twin pairs for these cases the twins are listed as different ages than the focal child or not listed (cases 10003630, 10004908, 10009486, 10012017, 10013873). This difference in ages could occur because the focal child's date of birth determines the age in the household roster, but the ages of siblings are reported by the respondent. In the cases noted above, the respondents were the same for both interviews. Errors in respondent report or interviewer entry may have caused the differences in ages. In the spring of 2011, there also may be mismatches between the ages of twins in a household because the focal children's ages were updated based on their date of birth and the interview date, but the ages of siblings in the household matrix were not incremented in age. Thus, ages that matched between the focal child and the twin in the fall of 2010 may not appear to match in the spring of 2011, even though the birthdates of the two children are the same.
- Information on hours in nonparental care arrangements was collected in the fall kindergarten parent interview. If the child's primary arrangement of a given type (for example, relative care) occurred less than once per week, the hours of care were not asked for that arrangement. However, the total weekly hours for other arrangements of that type (if the child had any) were collected. If the child had only that one type of care (relative care but not nonrelative or center-based care), the composite X1HRSNOW is calculated to be zero, even though the child did receive nonparental

care. Information for irregular care was not asked because it leads to significant response burden on the part of the respondent to recall information about child care that is used infrequently. It is also difficult to generalize from child care that is not used regularly because it is not clear how much exposure the child has to each care arrangement.

- The variable X1BASC indicates the type of arrangement that was selected for the Before- and After-School Care (BASC) component. If a respondent did not provide enough information about a particular type of care to determine a child's primary arrangement, but the respondent did provide enough information about another type of care that qualified for the BASC component, the child care arrangement that had complete data was selected for the BASC component. If a child had no child care arrangements that were eligible, if the data needed to determine whether the case could be selected for the BASC (e.g., hours in care) were coded -7 (refused) or -8 (don't know), if the parent did not give permission to contact the child's child care provider in parent interview question CHQ380, or if the child care provider was less than 18 years old, X1BASC is coded as -1 (not applicable). If the respondent to the parent interview broke off the interview in the child care section, and the parent interview question CHQ380 is coded -9 (not ascertained), X1BASC is also coded as -9 (not ascertained).
- In the spring collection, 29 study children were identified as homeschoolers. These children have values of -1, not applicable, for school variables such as X2LOCALE, X2PUBPRI (public/private school), and X2KSCTYP (school type). While they have a value for S2\_ID (spring school ID number) for data processing purposes, all homeschooled children have the same value for S2 ID.
- There are 512 cases of children whose recorded height is shorter in the spring than it was in the fall. In about half of these cases (n=252), the difference in height is an inch or less, which could be attributed to differences in the shoes they were wearing, their hair style on the day of measurement, or slouching. However, in 260 cases, the difference in height was greater than an inch, and in some cases more than 3, 4, or 5 inches shorter. Analysts should use their own judgment in how to classify these cases in their analysis.
- There are some anomalous responses related to the calculation of X1PAR1EMP and X1PAR2EMP (parent employment status). In some cases, a respondent reported that a parent was looking for work, but the strategies he or she used in looking for work included only reading want ads or some other strategy that did not qualify as "actively" looking for work according to definitions based on those used by the U. S. Department of Labor. These are parents for whom P1LOK\_1 = 1 but P1DO1\_1 through P1DO5\_1 are all equal to 2 (for parent 1), or P1LOK\_2 = 1 but P1DO1\_2 through P1DO5\_2 are all equal to 2 (for parent 2). These parents are classified as not in the labor force rather than looking for work.
- Occupation data were collected for parents who stated that they were looking for work (specifically, they were asked for information about their most recent occupation). However, as noted above, some of these parents were not using strategies that qualified as "actively" looking for work. Occupation data were retained for these

parents and appear in composite variables  $X1PAR1OCC_I$  (for parent 1) and  $X1PAR2OCC_I$  (for parent 2).

- For case 10012475, the parent occupation code and occupational prestige code were assigned to the wrong parent. Specifically, X1PAR2OCC\_I and X1PAR2SCR\_I correctly belong to parent 1 (X1PAR1OCC\_I, X1PAR1SCR\_I) rather than parent 2. In a different case, 10017336, variables X1PAR2OCC\_I and X1PAR2SCR\_I should be -9 and are not.
- Cases 10007811 and 10008017 originally had household members listed in the parent interview who were not actually in the household. These persons were edited out of the variables indicating relationship to the study child, but their presence in the household is still reflected in X1HTOTAL and X1LESS18. For case 10007811, X1HTOTAL should be 9 rather than 10, and X1LESS18 should be 7 rather than 8. For case 10008017, X1HTOTAL should be 3 rather than 4, and X1LESS18 should be 1 rather than 2.
- Three cases (10002683, 10012672, 10013143) with missing data for the location of child care were set to -9 (not ascertained) on X12PRIMPK, but should have been set to 6 (non-relative care location varies/not asked).
- Case 10012665 has a correct value for X1TQCDAT (X1TQCDAT=0) because all the teacher questionnaire data were -9 (not ascertained)), but it has a valid weight associated with analysis of teacher data from the child-level teacher questionnaire because this issue was discovered late in data processing after weighting had already been completed.
- Due to inconsistencies in reporting by teachers, it is not always clear which variables should be used for the specific class in which the child is enrolled. Some teachers did not always report data in the column associated with the type of class he or she indicated teaching (for example, in TQA the teacher reported teaching a full-day kindergarten class but reported data in the A.M. kindergarten column), some teachers did not report teaching the same type of kindergarten class in which he or she indicated the child was enrolled (for example, in TQA the teacher reported teaching only a half-day P.M. kindergarten class but reported in TQC that the child was in an A.M. kindergarten class), and some teachers reported teaching another class in addition to the type of class in which the child was enrolled (for example, in TQA the teacher reported teaching both half-day A.M. and P.M. kindergarten classes and reported in TQC that the child was in an A.M. kindergarten class). There are composite variables, X1CLASS and X2CLASS, that were created as indicators of the agreement in class type information between the TQA and TQC and to tell users which set of variables (A.M., P.M., or full-day) describe the particular kindergarten classroom in which the child was enrolled.

#### **Other (Specify) Variables**

In reviewing "other (specify)" responses to questions, there were times when a sufficient number of common responses were given to warrant the addition of a new category to the response options. The categories added after data collection ended, during review of the data, are listed in Exhibit A-1. Users should keep in mind that had these new categories been offered as response options to all respondents during data collection, it is possible that more respondents would have chosen them.

Item No.	Instrument	Question text	Added new response categories
A19	Teacher Questionnaire, Fall, 2010	What languages are used for academic instruction in each of your classes?	<ul><li>Asian Indian language</li><li>Sign language</li></ul>
A20	Teacher Questionnaire, Fall, 2010	In which languages other than English are the books or other written materials in your classroom?	<ul><li>Asian Indian language</li><li>Sign language</li></ul>
A22	Teacher Questionnaire, Fall, 2010	Which languages other than English are spoken by one or more children in each of your classes?	<ul><li>Asian Indian language</li><li>Sign language</li></ul>
A27	Teacher Questionnaire, Fall, 2010	Which languages other than English are spoken by you or any other teacher or aide to the ELL children in each of your classes for instructional support or conversation?	<ul><li>Asian Indian language</li><li>Sign language</li></ul>
F5	Teacher Questionnaire, (Child Level), Spring, 2011	Why has this child fallen behind in school work?	<ul> <li>ELL/Language issues</li> </ul>
F10	Teacher Questionnaire, (Child Level), Spring, 2011	Would you say the instruction this child receives is primarily	<ul> <li>English-instruction only</li> </ul>
PLQ040	Parent Interview, Fall, 2010	What languages other than English are spoken in your home?	<ul> <li>Native American languages</li> <li>Sign Language)</li> <li>Middle Eastern languages</li> <li>Western European languages</li> <li>Indian Subcontinental languages</li> <li>Southeast Asian languages</li> <li>Pacific Islander</li> </ul>
PLQ041	Parent Interview, Fall, 2010	What is the primary language that {you/NAME} {speak/speaks} in your home?	<ul> <li>African Languages</li> <li>Eastern European Languages</li> <li>Native American Languages</li> <li>Sign Language</li> <li>Middle Eastern Languages</li> <li>Western European Languages</li> <li>Indian Subcontinental Languages</li> <li>South East Asian Languages</li> <li>Pacific Islander Languages</li> </ul>

Exhibit A-1. New response categories: ECLS-K:2011 instruments

See note at end of exhibit.

Item No.	Instrument	Question text	Added new response categories
PLQ060	Parent Interview, Fall, 2010	What is the primary language spoken in your home?	<ul> <li>African Languages</li> <li>Eastern European Languages</li> <li>Native American Languages</li> <li>Sign Language</li> <li>Middle Eastern Languages</li> <li>Western European Languages</li> <li>Indian Subcontinental Languages</li> <li>South East Asian Languages</li> <li>Pacific Islander Languages</li> </ul>
CHQ110	Parent Interview, Fall, 2010	Before 2 years, or 24 months of age, how were {CHILD}'s {ear infections/ear aches} treated by your doctor, nurse, or other medical professional?	<ul> <li>Flushing the ear/irrigation/ear wax removal</li> <li>Remove tonsils/adenoids</li> <li>Chiropractic treatments</li> </ul>
CHQ140	Parent Interview, Fall, 2010	After your child's second birthday (24 months or older), how were {CHILD}'s {ear infections/ear aches} treated by your doctor, nurse, or other medical professional?	<ul> <li>Flushing the ear/irrigation/ear wax removal</li> <li>Remove tonsils/adenoids Chiropractic treatments</li> </ul>
EMQ070	Parent Interview, Fall, 2010	What {have you/has {NAME}} been doing in the past 4 weeks to find work?	<ul> <li>"Internet Search" was upcoded to be included in category 6. READ WANT- ADS</li> </ul>
EMQ080	Parent Interview, Fall, 2010	What {were you/was {NAME}} doing most of last week? Would you say	<ul> <li>"or other family members" was upcoded to be included in category 1. Keeping house, or caring for children</li> </ul>
CMQ690	Parent Interview, Fall, 2010	Was this interview conducted in English, Spanish, or another language?	Chinese Language
PIQ492	Parent Interview, Spring, 2011	How does {CHILD} usually get to school in the morning?	<ul> <li>Relative other than parent drives/takes child to school</li> <li>Nonrelative/paid service drives/takes child to school</li> </ul>
FSQ180	Parent Interview, Spring, 2011	Are you/Is {NAME} {CHILD}'s?	Roster error for nonrelative relation type
HEQ470 g	Parent Interview, Spring, 2011	Where did [CHILD] eat these breakfasts?	• On the way to school

Exhibit A-1. New response categories: ECLS-K:2011 instruments—Continued

See note at end of exhibit.

Item No.	Instrument	Question text	Added new response categories
CHQ024	Parent Interview, Spring, 2011	How have {CHILD}'s {ear infections/ear aches} been treated by your doctor, nurse, or other medical professional since {she/he} entered kindergarten?	<ul> <li>Flushing the ear/irrigation/ear wax removal</li> <li>Remove tonsils/adenoids</li> <li>Chiropractic treatments</li> <li>No infections since starting kindergarten</li> </ul>
CHQ070	Parent Interview, Spring, 2011	What types of exercise or physical activity does {CHILD} get?	<ul> <li>Interactive video dance/exercise game</li> </ul>
CHQ125	Parent Interview, Spring, 2011	What was the diagnosis or were the diagnoses?	<ul> <li>Sensory Deficit Disorder</li> <li>"Asperger's Disorder/Pervasive Developmental Disorder (PDD)/Other Autism Spectrum Disorder" was upcoded to be included in the category: Autism</li> </ul>
CHQ246	Parent Interview, Spring, 2011	What was the diagnosis?	<ul> <li>Hearing diagnosis-cause unknown</li> </ul>
CHQ301	Parent Interview, Spring, 2011	What was the diagnosis?	<ul> <li>Vision diagnosis-required glasses</li> </ul>
CMQ690	Parent Interview, Spring, 2011	Was this interview conducted in English, Spanish, or another language?	<ul> <li>Chinese language</li> </ul>

Exhibit A-1. New response categories: ECLS-K:2011 instruments-Continued

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), fall 2010 and spring 2011.

#### **APPENDIX B**

# **CREATING A SCHOOL-LEVEL FILE**

Because the ECLS-K:2011 randomly selected kindergartners from a nationally representative sample of schools containing kindergarten classes, it is possible to create a school-level file for the kindergarten data and conduct analyses representative of schools educating kindergartners and kindergarten-age children. The SAS code to create a school-level file is presented below (Exhibit B-1). Users should note that creating such a file and conducting a school-level analysis will not be appropriate in subsequent rounds of the study, because children move to new schools or leave the sample, and the participating schools will not necessarily be representative of schools that educate first-graders.

Exhibit B-1. SAS code for creation of school-level file

/\* PROGRAM NAME: ECLSK base-year school-level.sas\*/ /\* PURPOSE: This program will create an ECLS-K base-year school-level file\*/ OPTIONS NOFMTERR; %LET datasetname = ExtractData; /\* Give the ECB input dataset name here \*/ LIBNAME BaseData "C:\ECLS";  $/\star$  Instead of , put the directory path where the ECB input dataset is located \*/ /\*\* This procedure displays the contents of the ECB SAS dataset\*\*/ /\*\*PROC CONTENTS DATA=basedata.&datasetname.; RUN; \*\*/ /\*\* This procedure sorts the contents of the SAS dataset by S2 ID \*\*/ **PROC SORT** DATA=basedata.&datasetname. OUT=NewData NODUPKEY; BY S2 ID; RUN; /\*\* This Data step creates an output dataset called SchoolFile with only the required variables \*\*/ DATA SchoolFile; Set NewData; keep S1 ID S2 ID X1LOCALE X1REGION X DISTPOV X2LOCALE X2REGION X12YRRND--X2SCHEYY F1CCDLEA--F2CENTRC S2NUMDAY--S2COMPYY W2SCH0 W2SCH1--W2SCH80 ; RUN;

/\*\* This Step creates a lst file with the contents of the SchoolFile
dataset\*\*/
PROC CONTENTS DATA=SchoolFile;
RUN;

# APPENDIX C SUPPLEMENTAL GUIDE FOR THE KINDERGARTEN-FIRST GRADE PUBLIC-USE DATA FILE

This guide provides information specific to the Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011) kindergarten–first grade public-use data file, referred to hereinafter as the K–1 PUF, which includes data from the base-year (kindergarten) and first-grade data collections. This guide is a supplemental document that describes the edits made to the restricted-use file in order to produce the public-use file. Though this user's manual focuses on the kindergarten rounds of data collection, this supplemental guide includes information about first-grade variables in the public-use file because the kindergarten data were first released in a public version together with the first-grade data.

The K–1 PUF is derived from the K–1 restricted-use file, or RUF, and is identical in format. All the variables from the K–1 restricted-use file are included in the same order on the K–1 public-use file. Like the RUF, the PUF is a child-level file that contains assessment data and parent, teacher, and school information collected for all 18,174 study children who are considered base-year respondents. Data masking techniques were applied to variables in the K–1 RUF to make it suitable for release to researchers without a restricted-use license. These masking techniques, which are described further in the next section, include suppression of sensitive data or variables that apply to only a small subset of study participants, collapsing variable categories, top- or bottom-coding values that are unusually low or unusually high, and converting continuous variables to categorical variables. These techniques are applied to the data to minimize the risk that any study participant can be identified using the information provided in the data file about them.

As noted above, the masking techniques used to produce the ECLS-K:2011 public-use data file include variable recoding and suppression. The purpose of masking is to provide data in a format that minimizes the potential for a respondent to be identified because of that respondent's characteristics or a unique combination of characteristics. For example, there is potential for the principal of a school to be identified if the ZIP code of that school, the number of students in the school, and the age and race/ethnicity of that principal are all provided in the data file. To guard against this potential disclosure, ZIP code and principal race/ethnicity are suppressed (i.e., not provided) in the PUF, and the number of students in the school and principal age are provided in categories rather than as exact values. There are several types of modifications to variables in the K–1 PUF, as described below.

- Outliers (that is, unusually high or unusually low values) are top- or bottom-coded to prevent identification of unique schools, teachers, parents, and children without affecting overall data quality. The category value labels for variables that are top- and bottom-coded in the PUF are edited versions of the RUF category labels and reflect the new highest and lowest categories.
- Some continuous variables are converted into categorical variables, and some categorical variables have their categories collapsed in the K-1 PUF. Category value labels are provided for continuous variables that are converted into categorical variables.
- Variables with too few cases and/or a sparse distribution are suppressed in the K–1 PUF. The values for these variables are set to -2 or -4 and labeled "suppressed" in the ECB. The value -2 means that the data for this variable are suppressed to protect the respondent's confidentiality. The value -4 means that the data for this variable are suppressed because of an error in the administration of the instrument; there are only 23 variables with a value -4, and they are all from the kindergarten parent interview.
- Variables that provide a particularly identifying characteristic, such as a specific disability, or information that could be matched against external data sources to obtain a specific identifying characteristic, such as exact date of marriage or divorce, are also suppressed. The values for these variables are set to -2.

There is a comment field in the variable frequency distribution view screen of the ECB that displays a comment for each masked variable indicating whether the variable from the restricted-use file has been recoded or suppressed in the K-1 PUF.

Exhibits 1 to 12 below present the lists of masked variables for the base year. The exhibits display the variable name, variable label, and a comment indicating whether the variable was recoded or suppressed. When applicable, the reason for suppression is also provided. Exhibits 13 to 21 present the lists of masked variables for first grade. Section 7.1 of the user's manuals explain the variable naming conventions.

All variables from the special education teacher questionnaire part A (i.e., all variables with the prefix D2 or D4) and from the special education teacher questionnaire part B (i.e., all variables with the prefix E2 or E4) are suppressed on the K–1 PUF. In addition, all variables from the teacher-level questionnaire for children in kindergarten in the spring 2012 round of data collection are suppressed, with the exception of the variable indicating the year the questionnaire was completed. For brevity, these variables are not included in the exhibits.

Variable name	Variable description	Comments
C1HGT1	C1 ACQ005 HEIGHT MEASUREMENT 1	Data recoded for respondent confidentiality
C1WGT1	C1 ACQ010 WEIGHT MEASUREMENT 1	Data recoded for respondent confidentiality
C1HGT2	C1 ACQ015 HEIGHT MEASUREMENT 2	Data recoded for respondent confidentiality
C1WGT2	C1 ACQ020 WEIGHT MEASUREMENT 2	Data recoded for respondent confidentiality
C1SPECAC	C1 ACQ045 SPECIAL ACCOMMODATION LISTED	Data suppressed for respondent confidentiality
C1ACCOM	C1 ONE OF LISTED ACCOMMODATIONS PROVIDED	Data suppressed for respondent confidentiality
C1SETTNG	C1 ACQ055 ACCMMDTNS PROVIDED - SETTING	Data suppressed for respondent confidentiality
C1SCHEDL	C1 ACQ055 ACCMMDTNS PROVIDED - SCHEDULE	Data suppressed for respondent confidentiality
C1AIDE	C1 ACQ055 ACCMMDTNS PROVIDED - AIDE	Data suppressed for respondent confidentiality
C1DEVICE	C1 ACQ055 ACCMMDTNS PROVIDED - DEVICE	Data suppressed for respondent confidentiality
C1IEPPRO	C1 ACQ055 ACCMMDTNS PROVIDED - IEP	Data suppressed for respondent confidentiality
C1BREAKS	C1 ACQ055 ACCMMDTNS PROVIDED - BREAKS	Data suppressed for respondent confidentiality
C1EXTTIM	C1 ACQ055 ACCMMDTNS PROVIDED - EXT TIME	Data suppressed for respondent confidentiality
C1STAFF	C1 ACQ055 ACCMMDTNS PROVIDED - STAFF	Data suppressed for respondent confidentiality
C1BRKRES	C1 REASON FOR THE BREAKOFF	Data suppressed for respondent confidentiality

Exhibit 1. ECLS-K:2011 masked variables, fall kindergarten child assessment

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) Kindergarten–First Grade (K-1) Public-Use Data File.

Variable name	Variable description	Comments
C2HGT1	C2 ACQ005 HEIGHT MEASUREMENT 1	Data recoded for respondent confidentiality
C2WGT1	C2 ACQ010 WEIGHT MEASUREMENT 1	Data recoded for respondent confidentiality
C2HGT2	C2 ACQ015 HEIGHT MEASUREMENT 2	Data recoded for respondent confidentiality
C2WGT2	C2 ACQ020 WEIGHT MEASUREMENT 2	Data recoded for respondent confidentiality
C2SPECAC	C2 ACQ045 SPECIAL ACCOMMODATION LISTED	Data suppressed for respondent confidentiality
C2ACCOM	C2 ONE OF LISTED ACCOMMODATIONS PROVIDED	Data suppressed for respondent confidentiality
C2SETTNG	C2 ACQ055 ACCMMDTNS PROVIDED - SETTING	Data suppressed for respondent confidentiality
C2SCHEDL	C2 ACQ055 ACCMMDTNS PROVIDED - SCHEDULE	Data suppressed for respondent confidentiality
C2AIDE	C2 ACQ055 ACCMMDTNS PROVIDED - AIDE	Data suppressed for respondent confidentiality
C2DEVICE	C2 ACQ055 ACCMMDTNS PROVIDED - DEVICE	Data suppressed for respondent confidentiality
C2IEPPRO	C2 ACQ055 ACCMMDTNS PROVIDED - IEP	Data suppressed for respondent confidentiality
C2BREAKS	C2 ACQ055 ACCMMDTNS PROVIDED - BREAKS	Data suppressed for respondent confidentiality
C2EXTTIM	C2 ACQ055 ACCMMDTNS PROVIDED - EXT TIME	Data suppressed for respondent confidentiality
C2STAFF	C2 ACQ055 ACCMMDTNS PROVIDED - STAFF	Data suppressed for respondent confidentiality
C2BRKRES	C2 REASON FOR THE BREAKOFF	Data suppressed for respondent confidentiality

Exhibit 2. ECLS-K:2011 masked variables, spring kindergarten child assessment

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) Kindergarten–First Grade (K-1) Public-Use Data File.

Variable name	Variable description	Comments
P1CHDOBY	P1 INQ060C CHILD DATE OF BIRTH YEAR	Data recoded for respondent confidentiality
P1CHDOLD	P1 INQ090 HOW OLD IS CHILD	Data suppressed for respondent confidentialit
P1SCHOOL	P1 PIQ060 SCHOOL ASSIGNED OR SELECTED	Data recoded for respondent confidentiality
P1ATTSCH	P1 PIQ065 DOES CHILD ATTEND SCHOOL	Data suppressed for respondent confidentialit
P1HRSSCH	P1 PIQ066 HOURS IN SCHOOL PER WEEK	Data suppressed for respondent confidentialit
P1YEARK	P1 PIQ080 CHILDS YEAR OF KINDERGARTEN	Data recoded for respondent confidentiality
P1CURMAR	P1 FSQ200 CURRENT MARITAL STATUS	Data recoded for respondent confidentiality
P1YRSLV	P1 FSQ205A YEARS RESPONDENT LIVE W/CHILD	Data recoded for respondent confidentiality
P1ARABIC	P1 PLQ040 OTHER LANGUAGE - ARABIC	Data suppressed for respondent confidentialit
P1FLPNO	P1 PLQ040 OTHER LANGUAGE - FILIPINO	Data suppressed for respondent confidentialit
P1FRENCH	P1 PLQ040 OTHER LANGUAGE - FRENCH	Data suppressed for respondent confidentialit
P1GERMAN	P1 PLQ040 OTHER LANGUAGE - GERMAN	Data suppressed for respondent confidentialit
P1GREEK	P1 PLQ040 OTHER LANGUAGE - GREEK	Data suppressed for respondent confidentialit
P1ITALN	P1 PLQ040 OTHER LANGUAGE - ITALIAN	Data suppressed for respondent confidentialit
<b>P1JAPNES</b>	P1 PLQ040 OTHER LANGUAGE - JAPANESE	Data suppressed for respondent confidentialit
P1KOREAN	P1 PLQ040 OTHER LANGUAGE - KOREAN	Data suppressed for respondent confidentialit
P1POLISH	P1 PLQ040 OTHER LANGUAGE - POLISH	Data suppressed for respondent confidentialit
P1PORTUG	P1 PLQ040 OTHER LANGUAGE - PORTUGUESE	Data suppressed for respondent confidentialit
P1VIETNM	P1 PLQ040 OTHER LANGUAGE - VIETNAMESE	Data suppressed for respondent confidentialit
P1FARSI	P1 PLQ040 OTHER LANGUAGE - FARSI	Data suppressed for respondent confidentialit
P1HMONG	P1 PLQ040 OTHER LANGUAGE - HMONG	Data suppressed for respondent confidentialit
P1OTHLNG	P1 PLQ040 OTHER LANGUAGE - OTHER	Data suppressed for respondent confidentialit
P1NATVAM	P1 PLQ040 OTHER LANGUAGE - NATIVE AMER	Data suppressed for respondent confidentialit
P1SIGNLG	P1 PLQ040 OTHER LANGUAGE - SIGN LANG	Data suppressed for respondent confidentialit
P1MIDEST_R	P1 PLQ040 OTHER LANG - MIDDLE EASTRN-REV	Data suppressed for respondent confidentialit
P1WSTEUR_R	P1 PLQ040 OTHER LANG - WESTRN EUROPN-REV	Data suppressed for respondent confidentialit
PISOASIA	P1 PLQ040 OTHER LANGUAGE - SOUTHEAST ASN	Data suppressed for respondent confidentialit
P1PACISL	P1 PLQ040 OTHER LANGUAGE - PACIFIC ISLDR	Data suppressed for respondent confidentialit
P1PRMLN1	P1 PLQ041 PRIMARY LANG AT HOME-PARENT 1	Data recoded for respondent confidentiality
P1PRMLN2	P1 PLQ041 PRIMARY LANGUAGE AT HOME-PAR 2	Data recoded for respondent confidentiality
P1PRMLNG	P1 PLQ060 WHAT PRIMARY LANGUAGE AT HOME	Data recoded for respondent confidentiality
P1RAGEYR	P1 CCQ020A 1ST REL CARE-CHILD AGE (YRS)	Data recoded for respondent confidentiality
P1NUMREL	P1 CCQ030 # REL CARE ARRANGE YR BEFORE K	Data recoded for respondent confidentiality
P1RDAYPK	P1 CCQ040 # DAYS/WK REL CARE YR BEFORE K	Data recoded for respondent confidentiality
P1RELLNG	P1 CCQ050B RELATIVE CARE LANGUAGE	Data recoded for respondent confidentiality
P1REL18Y	P1 CCQ050C RELATIVE OLDER THAN 18	Data suppressed for respondent confidentialit
P1RELNUM	P1 CCQ060 # REL CARE ARRANGMNTS NOW	Data recoded for respondent confidentiality
P1RELMST	P1 CCQ065 WHICH RELATIVE GIVES MOST CARE	Data recoded for respondent confidentiality

Variable name	Variable description	Comments
P1RELC18	P1 CCQ066 MOST CARE NOW REL OLDER THN 18	Data suppressed for respondent confidentialit
P1RDAYS	P1 CCQ085 # OF DAYS/WK OF REL CARE	Data recoded for respondent confidentiality
P1RPDREL	P1 CCQ093A REL CARE PAID BY OTH RELATIV	Data suppressed for respondent confidentialit
P1RPDTNF	P1 CCQ093B REL CARE PAID BY TANF	Data suppressed for respondent confidentialit
P1RPDSOC	P1 CCQ093C REL CARE PAID BY SOC SERVC	Data suppressed for respondent confidentialit
P1RPDEMP	P1 CCQ093D REL CARE PAID BY EMPLOYER	Data suppressed for respondent confidentialit
P1RPDOTH	P1 CCQ093E REL CARE PAID BY OTHER	Data suppressed for respondent confidentialit
P1RAMTCH	P1 CCQ096 AMT PD REL CARE # OF CHILD	Data recoded for respondent confidentiality
P1RHROTH	P1 CCQ110 # HRS/WK OTH REL CARE FOR CH	Data recoded for respondent confidentiality
P1NAGEYR	P1 CCQ125A 1ST NREL CARE-CHILD AGE (YRS)	Data recoded for respondent confidentiality
P1NUMNON	P1 CCQ135 # NONREL CARE ARRANGE YR BFR K	Data recoded for respondent confidentiality
P1NDAYPK	P1 CCQ145 # DAYS/WK NONREL CARE YR BFR K	Data recoded for respondent confidentiality
P1NRCGLG	P1 CCQ155B NONREL CAREGIVER LANGUAGE	Data recoded for respondent confidentiality
P1NR18Y	P1 CCQ155C NONREL CG 18 OR OLDER	Data suppressed for respondent confidentialit
P1NRNUM	P1 CCQ165 # NONREL CARE ARRANGMNTS NOW	Data recoded for respondent confidentiality
P1NRLC18	P1 CCQ166 NONREL CURR CG 18 OR OLDER	Data suppressed for respondent confidentialit
P1NDAYS	P1 CCQ185 # OF DAYS/WK OF NONREL CARE	Data recoded for respondent confidentiality
P1NPDREL	P1 CCQ193A NR CARE PAID BY OTH RELATIVE	Data suppressed for respondent confidentialit
P1NPDTNF	P1 CCQ193B NR CARE PAID BY TANF	Data suppressed for respondent confidentialit
P1NPDSOC	P1 CCQ193C NR CARE PAID BY SOC SERVC	Data suppressed for respondent confidentialit
P1NPDEMP	P1 CCQ193D NR CARE PAID EMPLOYER	Data suppressed for respondent confidentialit
P1NPDOTH	P1 CCQ193E NR CARE PAID BY OTHER	Data suppressed for respondent confidentialit
P1NAMTCH	P1 CCQ196 AMT PD NONREL CARE	Data recoded for respondent confidentiality
P1NHROTH	P1 CCQ205 # HRS/WK OTHER NONREL CARE	Data suppressed for respondent confidentialit
P1CAGEYR	P1 CCQ275B 1ST CNTR CARE-CHILD AGE (YRS)	Data recoded for respondent confidentiality
P1CNUMPK	P1 CCQ285 # CENTER CARE ARRANGE YR BEF K	Data recoded for respondent confidentiality
P1CTRSCH	P1 CCQ301 LOCATION OF PROGRAM	Data recoded for respondent confidentiality
P1CDAYPK	P1 CCQ305 # DAYS/WK CNTR CARE YR BEF K	Data recoded for respondent confidentiality
P1TCHLNG	P1 CCQ320 TEACHER SPOKE WHAT LANG	Data recoded for respondent confidentiality
P1CWKEND	P1 CCQ335 WHEN PROGRAM - WEEKENDS	Data suppressed for respondent confidentialit
P1CDAYS	P1 CCQ350 # OF DAYS/WK OF CENTER CARE	Data recoded for respondent confidentiality
P1CPDREL	P1 CCQ370A CNTR CARE PD BY OTH REL	Data suppressed for respondent confidentiality
P1CPDTCF	P1 CCQ370B CENTER CARE PAID BY TANF	Data suppressed for respondent confidentialit
P1CPDSOC	P1 CCQ370C CNTR CARE PD BY SOC SVC	Data suppressed for respondent confidentialit
P1CPDEMP	P1 CCQ370D CENTER CARE PAID BY JOB	Data suppressed for respondent confidentialit
P1CPDOTH	P1 CCQ370E CNTR CARE PAID BY OTHER	Data suppressed for respondent confidentialit
P1CAMTCH	P1 CCQ373 AMT PD CENTER CARE	Data recoded for respondent confidentiality
P1CHROTH	P1 CCQ375 #HRS/WK AT OTHER PROGRAMS	Data suppressed for respondent confidentialit

Variable name	Variable description	Comments
P1SELFCA	P1 CCQ376 CHILD CARES FOR SELF	Data suppressed for respondent confidentiality
P1SCHRWK	P1 CCQ377 HR/WK CHILD CARES FOR SELF	Data suppressed for respondent confidentiality
P1PRAG18	P1 CCQ450 PROVIDER 18 YEARS OR OLDER	Data suppressed for respondent confidentialit
P1WEIGHP	P1 CHQ006A CHILD WEIGHT AT BIRTH-POUNDS	Data recoded for respondent confidentiality
P1WEIGHG	P1 CHQ007 CHILD WEIGHT AT BIRTH-GRAMS	Data recoded for respondent confidentiality
P1WEIGH5	P1 CHQ010 MORE THAN 5.5 POUNDS AT BIRTH	Data suppressed for respondent confidentialit
P1WEIGH3	P1 CHQ015 MORE THAN 3 POUNDS AT BIRTH	Data suppressed for respondent confidentialit
P1MORE10	P1 CHQ016 WEIGHT MORE THAN 10 LBS	Data suppressed for respondent confidentialit
P1ERLYUN	P1 CHQ030A HOW PREMATURE - UNIT	Data suppressed for respondent confidentialit
P1EARLY	P1 CHQ030BC HOW PREMATURE - NUMBER	Data suppressed for respondent confidentialit
P1BRFDUN	P1 CHQ032A AGE QUIT BREASTFEED UNITS	Data suppressed for respondent confidentialit
P1BRFDNM	P1 CHQ032B AGE QUIT BREASTFEED NUMBER	Data suppressed for respondent confidentialit
P1BRFDMO	P1 CHQ033 # MONTHS QUIT BREASTFEED	Data suppressed for respondent confidentialit
P1MULTIP	P1 CHQ035 CHILD PART OF MULTIPLE BIRTH	Data recoded for respondent confidentiality
P1MULSIB	P1 CHQ070 MULTIPLE SIBLING STATUS	Data suppressed for respondent confidentialit
P1FEBRIL	P1 CHQ090 COMPLICATION 1 - FEBRILE	Data suppressed for respondent confidentialit
P1ABRUPT	P1 CHQ090 COMPLICATION 4 - ABRUPTIO PLAC	Data suppressed for respondent confidentialit
P1PLCNTP	P1 CHQ090 COMPLICATION 5 - PLACENTA PREV	Data suppressed for respondent confidentialit
P1BLEED	P1 CHQ090 COMPLICATION 6 - OTH BLEEDING	Data suppressed for respondent confidentialit
P1SEIZE	P1 CHQ090 COMPLICATION 7 - SEIZURES	Data suppressed for respondent confidentialit
P1FAST	P1 CHQ090 COMPLICATION 8 - FAST LABOR	Data suppressed for respondent confidentialit
P1PROLPS	P1 CHQ090 COMPLICATION 13 - CORD PROLAPS	Data suppressed for respondent confidentialit
P1ANESTH	P1 CHQ090 COMPLICATION 14 - ANESTH COMP	Data suppressed for respondent confidentialit
P1U2WAIT	P1 CHQ110A EAR TRTMT BEF 2 - WATCH/WAIT	Data suppressed for respondent confidentialit
P1U2DECN	P1 CHQ110B EAR TRTMT BEF 2 - DECONGEST	Data suppressed for respondent confidentialit
P1U2NODR	P1 CHQ110G EAR TRTMT BEF 2 - NO DR VISIT	Data suppressed for respondent confidentialit
P1U2OTHR	P1 CHQ110H EAR TRTMT BEF 2 - OTHER	Data suppressed for respondent confidentialit
P1U2FLSH	P1 CHQ110I EAR TRTMT BEF 2 - FLUSH/IRRIG	Data suppressed for respondent confidentialit
P1U2TONS	P1 CHQ110J EAR TRTMT BEF 2-TONSILS/ADNOID	Data suppressed for respondent confidentialit
P1U2CHIR	P1 CHQ110K EAR TRTMT BEF 2-CHIROPRACTOR	Data suppressed for respondent confidentialit
P1U2ETLO	P1 CHQ120 EAR TUBES IN WHICH EAR BEF 2	Data suppressed for respondent confidentialit
P1U2NOET	P1 CHQ125 # NO EAR TREATMENT BEFORE 2	Data recoded for respondent confidentiality
P1O2NEAR	P1 CHQ135 # EAR PROB FROM 2 TO SCHOOL	Data recoded for respondent confidentiality
P1O2WAIT	P1 CHQ140A EAR TRTMT 2 TO SCH-WATCH/WAIT	Data suppressed for respondent confidentialit
P1O2DECN	P1 CHQ140B EAR TRTMT 2 TO SCH-DECONGEST	Data suppressed for respondent confidentialit
P1O2NODR	P1 CHQ140G EAR TRTMT 2 TO SCH-NO DR VIST	Data suppressed for respondent confidentialit
P1O2NOIN	P1 CHQ140H NO INFECTIONS SINCE 2ND BDAY	Data suppressed for respondent confidentialit
P1O2OTHR	P1 CHQ140I EAR TRTMT 2 TO SCH-OTHER	Data suppressed for respondent confidentialit

Variable name	Variable description	Comments
P1O2FLSH	P1 CHQ140J EAR TRTMT 2 TO SCH-FLUSH/IRRIG	Data suppressed for respondent confidentialit
P1O2TONS	P1 CHQ140K EAR TRTMT BEF 2-TONSILS/ADNOID	Data suppressed for respondent confidentialit
P1O2CHIR	P1 CHQ140L EAR TRTMT BEF 2-CHIROPRACTOR	Data suppressed for respondent confidentialit
P1O2WHER	P1 CHQ150 EAR TUBES WHICH EAR 2 TO SCH	Data suppressed for respondent confidentialit
P1O2NOET	P1 CHQ155 # NO EAR TREATMENT 2 TO SCHOOL	Data recoded for respondent confidentiality
P1HSCALE	P1 CHQ330 SCALE OF CHILDS HEALTH	Data recoded for respondent confidentiality
P1LEGMAR	P1 MHQ020 RESBIODAD MARRIED TO RESBIOMOM	Data recoded for respondent confidentiality
P1MRRYMO	P1 MHQ025A MONTH WHEN RESP-BIOPAR MARRIED	Data suppressed for respondent confidentialit
P1MRRYYR	P1 MHQ025B YEAR WHEN RESP-BIOPAR MARRIED	Data recoded for respondent confidentiality
P1LIVTOG	P1 MHQ030 RESBIOMOM-RESBIODAD LIVE TGTHR	Data suppressed for respondent confidentialit
P1LIVMO	P1 MHQ035A MNTH RESBIOMOM-DAD START COHAB	Data suppressed for respondent confidentialit
P1LIVYR	P1 MHQ035B YR RESBIOMOM-DAD START COHAB	Data suppressed for respondent confidentialit
P1CURMAM	P1 MHQ050A MONTH CURRENT MARRIAGE STARTED	Data suppressed for respondent confidentialit
P1CURMAY	P1 MHQ050B YEAR CURRENT MARRIAGE STARTED	Data suppressed for respondent confidentialit
P1CURLVM	P1 MHQ055A MNTH RESP-NONBIOPAR STRT COHAB	Data suppressed for respondent confidentialit
P1CURLVY	P1 MHQ055B YR RESP-NONBIOPAR START COHAB	Data suppressed for respondent confidentialit
P1BIOMRY	P1 MHQ060 CHILDS BIOPARENTS ARE MARRIED	Data suppressed for respondent confidentialit
P1BIOMRM	P1 MHQ065A MONTH WHEN BIOPARENTS MARRIED	Data suppressed for respondent confidentialit
P1BIOMYR	P1 MHQ065B YEAR WHEN BIOPARENTS MARRIED	Data suppressed for respondent confidentialit
P1BIOLIV	P1 MHQ070 BIOPARS TOGETHER LIKE MARRIED	Data suppressed for respondent confidentialit
P1BIOLVM	P1 MHQ075A MNTH BIOPARS BEGAN LIVE TGTHR	Data suppressed for respondent confidentialit
P1BIOLVY	P1 MHQ075B YEAR BIOPARS BEGAN LIVE TGTHR	Data suppressed for respondent confidentialit
P1RESBIO	P1 MHQ080 RESP AND BIOPAR ARE MARRIED	Data suppressed for respondent confidentialit
P1RESWHM	P1 MHQ085A MNTH RESP & BIOPAR GOT MARRIED	Data suppressed for respondent confidentialit
P1RESWHY	P1 MHQ085B YEAR RESP & BIOPAR GOT MARRIED	Data suppressed for respondent confidentialit
P1RESLIV	P1 MHQ090 RESP-BIOPAR TOGETHER LIKE MARR	Data suppressed for respondent confidentialit
P1RESLVM	P1 MHQ095A MNTH RESP-RESBIOPAR STRT COHAB	Data suppressed for respondent confidentialit
P1RESLVY	P1 MHQ095B YR RESP-RESBIOPAR START COHAB	Data suppressed for respondent confidentialit
P1BIOLE1	P1 MHQ096 RESPONDENT LEGALLY MARRIED	Data suppressed for respondent confidentialit
P1WHNMAM	P1 MHQ097A MONTH RESPS MARRIAGE BEGAN	Data suppressed for respondent confidentialit
P1WHNMAY	P1 MHQ097B YEAR RESPS MARRIAGE BEGAN	Data suppressed for respondent confidentialit
P1RESLVO	P1 MHQ098 RESP LIVING W/ SOMEONE	Data suppressed for respondent confidentialit
P1LVOTM	P1 MHQ099A MONTH RESP START COHAB	Data suppressed for respondent confidentialit
P1LVOTY	P1 MHQ099B YEAR RESP START COHAB	Data suppressed for respondent confidentialit
P1BIOMYM	P1 MHQ105A MONTH RESPS MARRIAGE BEGAN	Data suppressed for respondent confidentialit
P1BIOMYY	P1 MHQ105B YEAR RESPS MARRIAGE BEGAN	Data suppressed for respondent confidentialit
P1RESOTH	P1 MHQ110 RESP LIVING W/ SOMEONE	Data suppressed for respondent confidentialit
P1OTHWHM	P1 MHQ115A MONTH RESP START COHAB	Data suppressed for respondent confidentialit

Variable name	Variable description	Comments
P1OTHWHY	P1 MHQ115B YEAR RESP START COHAB	Data suppressed for respondent confidentiality
P1KNOWLE	P1 MHQ120 NONRES BIOPAR CURR MARRIED	Data suppressed for respondent confidentiality
P1BIOPAR	P1 MHQ125 BIOPAR EVER MARRIED TO BIOPAR	Data suppressed for respondent confidentiality
P1MDWHM	P1 MHQ130A MNTH NONRESBIOPAR MARRIAGE BGN	Data suppressed for respondent confidentiality
P1MDWHY	P1 MHQ130B YR NONRESBIOPAR MARRIAGE BEGAN	Data suppressed for respondent confidentiality
P1KNOWL2	P1 MHQ135 HOW NONRESBIOPAR MARRGE ENDED	Data suppressed for respondent confidentiality
P1ENDMO	P1 MHQ136A MNTH NONRESBIOPAR MARRIAGE END	Data suppressed for respondent confidentiality
P1ENDYR	P1 MHQ136B YR NONRESBIOPAR MARRIAGE END	Data suppressed for respondent confidentiality
P1STOPMM	P1 MHQ145A MNTH CHD STOP LIVING W/ BIOPAR	Data suppressed for respondent confidentiality
P1STOPYY	P1 MHQ145B YR CHILD STOP LIVING W/ BIOPAR	Data suppressed for respondent confidentiality
P1BIOPA2	P1 MHQ150 BIOPARENTS EVER LIVED TOGETHER	Data suppressed for respondent confidentiality
P1LIVEMO	P1 MHQ155A MNTH BIOPAR 1ST LIVED TOGETHER	Data suppressed for respondent confidentiality
P1LIVEYR	P1 MHQ155B YR BIOPAR 1ST LIVED TOGETHER	Data suppressed for respondent confidentiality
P1LSTLVM	P1 MHQ160A MNTH BIOPAR LAST LIVE TOGETHER	Data suppressed for respondent confidentiality
P1LSTLVY	P1 MHQ160B YR BIOPAR LAST LIVED TOGETHER	Data suppressed for respondent confidentiality
P1OLDMOM	P1 MHQ165 BIOMOMS AGE AT 1ST BIRTH	Data recoded for respondent confidentiality
P1BIMMAR	P1 MHQ175 BIOMOM MARRIED AT BIRTH	Data suppressed for respondent confidentiality
P1BIMLIV	P1 MHQ180 BIOMOM IN MARLIKE REL AT BIRTH	Data suppressed for respondent confidentiali
P1NRMOLV	P1 HRQ030 NONRES BIOLOGICAL MOM LIVING	Data suppressed for respondent confidentiali
P1BIOMBM	P1 HRQ040A NONRES BIOMOM MONTH OF BIRTH	Data suppressed for respondent confidentiali
P1BIOMBY	P1 HRQ040B NONRES BIOMOMS YEAR OF BIRTH	Data suppressed for respondent confidentiali
P1BIOMAG	P1 HRQ060 NONRESIDENT BIOMOMS AGE	Data suppressed for respondent confidentiality
P1BIOMDM	P1 HRQ080A MNTH WHEN CHILDS BIOMOM DIED	Data suppressed for respondent confidentiality
P1BIOMDY	P1 HRQ080B YEAR WHEN CHILDS BIOMOM DIED	Data suppressed for respondent confidentiality
P1MOMHSP	P1 HRQ090 NONRES BMOM IS HISPANIC/LATINO	Data suppressed for respondent confidentiality
P1MOMAIA	P1 HRQ100 NONRES BMOM IS AM IND/ALSK NAT	Data suppressed for respondent confidentiality
P1MOMASN	P1 HRQ100 NONRES BIOMOM IS ASIAN	Data suppressed for respondent confidentiali
P1MOMBLK	P1 HRQ100 NRES BMOM IS BLACK/AFRICAN AMR	Data suppressed for respondent confidentiality
P1MOMHPI	P1 HRQ100 NRES BMOM IS NAT HAWI/PAC ISL	Data suppressed for respondent confidentiality
P1MOMWHT	P1 HRQ100 NONRES BIOMOM IS WHITE	Data suppressed for respondent confidentiality
P1CHLVBM	P1 HRQ110 CH EVER LIVED WITH BIOMOM	Data suppressed for respondent confidentiality
P1CHMOMM	P1 HRQ120A MNTH BIOMOM-CHD LAST LVD TGTHR	Data suppressed for respondent confidentiali
P1CHMOMY	P1 HRQ120B YR BIOMOM-CHD LAST LIVED TGTHR	Data suppressed for respondent confidentiali
P1BIDLIV	P1 HRQ030 NONRES BIOLOGICAL DAD LIVING	Data suppressed for respondent confidentiali
P1BIODBM	P1 HRQ040A NONRES BIODAD MONTH OF BIRTH	Data suppressed for respondent confidentiali
P1BIODBY	P1 HRQ040B NONRES BIODADS YEAR OF BIRTH	Data suppressed for respondent confidentiali
P1BIODAG	P1 HRQ060 NONRESIDENT BIODADS AGE	Data suppressed for respondent confidentialit
P1BIODDM	P1 HRQ080A MONTH WHEN CHDS BIODAD DIED	Data suppressed for respondent confidentialit

Exhibit 3.	ECLS-K:2011 masked variables, f	fall kindergarten parent interview—Continued
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Variable name	Variable description	Comments
P1BIODDY	P1 HRQ080B YEAR WHEN CHILDS BIODAD DIED	Data suppressed for respondent confidentiality
P1DADHSP	P1 HRQ090 NONRES BDAD IS HISPANIC/LATINO	Data suppressed for respondent confidentiality
P1DADAIA	P1 HRQ100 NONRES BDAD IS AM IND/ALSK NAT	Data suppressed for respondent confidentiality
P1DADASN	P1 HRQ100 NONRES BIODAD IS ASIAN	Data suppressed for respondent confidentiality
P1DADBLK	P1 HRQ100 NRES BDAD IS BLACK/AFRICAN AMR	Data suppressed for respondent confidentiality
P1DADHPI	P1 HRQ100 NRES BDAD IS NAT HAWI/PAC ISL	Data suppressed for respondent confidentiality
P1DADWHT	P1 HRQ100 NONRES BIODAD IS WHITE	Data suppressed for respondent confidentiality
P1CHLVBD	P1 HRQ110 CH EVER LIVED WITH BIODAD	Data suppressed for respondent confidentiality
P1CHDADM	P1 HRQ120A MNTH BIODAD-CHD LAST LVD TGTHR	Data suppressed for respondent confidentiality
P1CHDADY	P1 HRQ120B YR BIODAD-CHD LAST LIVD TGTHR	Data suppressed for respondent confidentiality
P1BMCON	P1 NRQ040 TIME FROM LAST CONTACT-BIOMOM	Data recoded for respondent confidentiality
P1BMDYWK	P1 NRQ050 #DAYS CHD SAW BIOMOM LAST 4WKS	Data suppressed for respondent confidentiality
P1ADOPTM	P1 NRQ030 CHILD HAS NONRES ADPT MOM	Data suppressed for respondent confidentialit
P1ADMCON	P1 NRQ040 TIME FROM LAST CONTACT-ADPMOM	Data suppressed for respondent confidentialit
P1AMDYWK	P1 NRQ050 #DAYS CHD SAW ADPMOM LAST 4WKS	Data suppressed for respondent confidentialit
P1BDCON	P1 NRQ040 TIME FROM LAST CONTACT-BIODAD	Data recoded for respondent confidentiality
P1ADOPTD	P1 NRQ030 CHILD HAS NONRES ADOPTIVE DAD	Data suppressed for respondent confidentialit
P1ADDCON	P1 NRQ040 TIME FROM LAST CONTACT-ADPDAD	Data suppressed for respondent confidentialit
P1LIKDAD	P1 CFQ030 ANY OTHER LIKE FATHER TO CHILD	Data suppressed due to administration error
P1GRNDPA	P1 CFQ040 GRANDFATHER LIKE FATHER	Data suppressed due to administration error
P1BIOFTHR	P1 CFQ040 BIOLOGICAL FATHER LIKE FATHER	Data suppressed due to administration error
P1STPDAD	P1 CFQ040 STEPFATHER LIKE FATHER	Data suppressed due to administration error
P1ADPTDA	P1 CFQ040 ADOPTIVE FATHER LIKE FATHER	Data suppressed due to administration error
P1FOSDAD	P1 CFQ040 FOSTER FATHER LIKE FATHER	Data suppressed due to administration error
P1RESPD	P1 CFQ040 RESPONDENT PARTNER LIKE FATHER	Data suppressed due to administration error
P1TCHDAD	P1 CFQ040 TEACHER/COACH LIKE FATHER	Data suppressed due to administration error
P1CLGDAD	P1 CFQ040 CLERGY LIKE FATHER	Data suppressed due to administration error
P1UNCLE	P1 CFQ040 UNCLE LIKE FATHER	Data suppressed due to administration error
P1SIBDAD	P1 CFQ040 CHILDS SIBLING LIKE FATHER	Data suppressed due to administration error
P1FRDDAD	P1 CFQ040 FAMILY FRIEND LIKE FATHER	Data suppressed due to administration error
P1SITDAD	P1 CFQ040 BABYSITTER/CGVR LIKE FATHER	Data suppressed due to administration error
P1OTHDAD	P1 CFQ040 OTHER RELATIVE LIKE FATHER	Data suppressed due to administration error
P1NONRDA	P1 CFQ040 OTHER NONRELATIVE LIKE FATHER	Data suppressed due to administration error
P1ADDYWK	P1 NRQ050 #DAYS CHD SAW ADPDAD LAST 4WKS	Data suppressed for respondent confidentiality
P1HIG_1	P1 PEQ020 PERS 1 HIGHEST EDUCATION LEVEL	Data recoded for respondent confidentiality
1	P1 PEQ080 PERS 1 HRS/WK IN TRAINING	Data recoded for respondent confidentiality
P1HIG_2	P1 PEQ020 PERS 2 HIGHEST EDUCATION LEVEL	Data recoded for respondent confidentiality
P1WKL 2	P1 PEQ080 PERS 2 HRS/WK IN TRAINING	Data recoded for respondent confidentiality

Exhibit 3.	ECLS-K:2011 n	nasked variables	fall kindergarten	parent interview-	-Continued

See note at end of exhibit.

Variable name	Variable description	Comments
P1GRD_N1	P1 PEQ020 NONRES BIOMOM HIGHEST ED LEVEL	Data recoded for respondent confidentiality
P1GRD_N2	P1 PEQ020 NONRES ADOMOM HIGHEST ED LEVEL	Data suppressed for respondent confidentiality
P1SCH_N2	P1 PEQ030 NONRES ADOMOM HS DIPLOMA/GED	Data suppressed for respondent confidentiality
P1GRD_N3	P1 PEQ020 NONRES BIODAD HIGHEST ED LEVEL	Data recoded for respondent confidentiality
P1GRD_N4	P1 PEQ020 NONRES ADODAD HIGHEST ED LEVEL	Data suppressed for respondent confidentiality
P1SCH_N4	P1 PEQ030 NONRES ADODAD HS DIPLOMA/GED	Data suppressed for respondent confidentiality
P1JOB_1	P1 EMQ040 PERSON 1 NUMBER OF CUR JOBS	Data recoded for respondent confidentiality
P1JOB_2	P1 EMQ040 PERSON 2 NUMBER OF CUR JOBS	Data recoded for respondent confidentiality
P1DOW_1	P1 EMQ080 WHAT PERSON 1 DOING LAST WEEK	Data recoded for respondent confidentiality
P1DOW_2	P1 EMQ080 WHAT PERSON 2 DOING LAST WEEK	Data recoded for respondent confidentiality
P1NUMPLA	P1 CMQ010 NUMBER OF PLACES CHD LIVED	Data recoded for respondent confidentiality
P1YRSLIV	P1 CMQ030A YEARS CHD LIVED IN LATEST HOME	Data recoded for respondent confidentiality
P1LANGUA	P1 CMQ690 LANGUAGE INTERVIEW CONDUCTED	Data recoded for respondent confidentiality

Exhibit 3. ECLS-K:2011 masked variables, fall kindergarten parent interview—Continued

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) Kindergarten–First Grade (K-1) Public-Use Data File.

Variable name	Variable description	Comments
P2CHDOBY	P2 INQ170C CHILD DATE OF BIRTH YEAR	Data recoded for respondent confidentiality
P2CHDOLD	P2 INQ176 HOW OLD IS CHILD	Data suppressed for respondent confidentialit
P2BTHPLC	P2 INQ300 CHILD BORN IN THIS COUNTRY	Data suppressed for respondent confidentialit
P2CNTRYB	P2 INQ310 COUNTRY OF BIRTH	Data suppressed for respondent confidentialit
P2YRCOME	P2 INQ320 YEAR CAME TO UNITED STATES	Data suppressed for respondent confidentialit
P2WEIGHP	P2 SPQ065A CHILD WEIGHT AT BIRTH-POUNDS	Data recoded for respondent confidentiality
P2WEIGH5	P2 SPQ070 MORE THAN 5.5 POUNDS AT BIRTH	Data suppressed for respondent confidentialit
P2WEIGH3	P2 SPQ080 MORE THAN 3 POUNDS AT BIRTH	Data suppressed for respondent confidentialit
P2MORE10	P2 SPQ085 WEIGHT MORE THAN 10 LBS	Data suppressed for respondent confidentialit
P2EARLY	P2 SPQ100 HOW PREMATURE - NUMBER	Data suppressed for respondent confidentialit
P2ERLYUN	P2 SPQ105 HOW PREMATURE - UNIT	Data suppressed for respondent confidentialit
P2MULTIP	P2 SPQ106 CHILD PART OF MULTIPLE BIRTH	Data recoded for respondent confidentiality
P2PRIMLN	P2 SPQ157 WHAT PRIMARY LANGUAGE AT HOME	Data recoded for respondent confidentiality
P2GTTSCH	P2 PIQ492 HOW CHILD GETS TO SCHOOL	Data recoded for respondent confidentiality
P2REASL1	P2 FSQ015 REASON LEFT - PERS 1	Data suppressed for respondent confidentialit
P2REASL2	P2 FSQ015 REASON LEFT - PERS 2	Data suppressed for respondent confidentialit
P2REASL3	P2 FSQ015 REASON LEFT - PERS 3	Data suppressed for respondent confidentialit
P2REASL4	P2 FSQ015 REASON LEFT - PERS 4	Data suppressed for respondent confidentialit
P2REASL5	P2 FSQ015 REASON LEFT - PERS 5	Data suppressed for respondent confidentialit
P2REASL6	P2 FSQ015 REASON LEFT - PERS 6	Data suppressed for respondent confidentialit
P2REASL7	P2 FSQ015 REASON LEFT - PERS 7	Data suppressed for respondent confidentialit
P2REASL8	P2 FSQ015 REASON LEFT - PERS 8	Data suppressed for respondent confidentialit
P2REASL9	P2 FSQ015 REASON LEFT - PERS 9	Data suppressed for respondent confidentialit
P2REASL10	P2 FSQ015 REASON LEFT - PERS 10	Data suppressed for respondent confidentialit
P2REASL11	P2 FSQ015 REASON LEFT - PERS 11	Data suppressed for respondent confidentialit
P2REASL12	P2 FSQ015 REASON LEFT - PERS 12	Data suppressed for respondent confidentialit
P2REASL13	P2 FSQ015 REASON LEFT - PERS 13	Data suppressed for respondent confidentialit
P2REASL14	P2 FSQ015 REASON LEFT - PERS 14	Data suppressed for respondent confidentialit
P2REASL15	P2 FSQ015 REASON LEFT - PERS 15	Data suppressed for respondent confidentialit
P2REASL16	P2 FSQ015 REASON LEFT - PERS 16	Data suppressed for respondent confidentialit
P2REASL17	P2 FSQ015 REASON LEFT - PERS 17	Data suppressed for respondent confidentialit
P2REASL18	P2 FSQ015 REASON LEFT - PERS 18	Data suppressed for respondent confidentialit
P2REASL19	P2 FSQ015 REASON LEFT - PERS 19	Data suppressed for respondent confidentialit
P2REASL20	P2 FSQ015 REASON LEFT - PERS 20	Data suppressed for respondent confidentialit
P2REASL21	P2 FSQ015 REASON LEFT - PERS 21	Data suppressed for respondent confidentialit
P2REASL22	P2 FSQ015 REASON LEFT - PERS 22	Data suppressed for respondent confidentialit
P2REASL23	P2 FSQ015 REASON LEFT - PERS 23	Data suppressed for respondent confidentialit
P2REASL24	P2 FSQ015 REASON LEFT - PERS 24	Data suppressed for respondent confidentialit

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview

Variable name	Variable description	Comments
P2REASL25	P2 FSQ015 REASON LEFT - PERS 25	Data suppressed for respondent confidentiality
P2CURMAR	P2 FSQ200 CURRENT MARITAL STATUS	Data recoded for respondent confidentiality
P2PARCT1	P2 FSQ212 PARENT 1'S HOME COUNTRY	Data recoded for respondent confidentiality
P2PARCT2	P2 FSQ212 PARENT 2'S HOME COUNTRY	Data recoded for respondent confidentiality
P2PAREM1	P2 FSQ213 AGE PARENT 1 MOVED TO US	Data recoded for respondent confidentiality
P2HIG_1	P2 FSQ221 PERS 1 HIGHEST EDUCATION LEVEL	Data recoded for respondent confidentiality
P2HIG_2	P2 FSQ221 PERS 2 HIGHEST EDUCATION LEVEL	Data recoded for respondent confidentiality
P2BMCON	P2 NRQ040 TIME FROM LAST CONTACT-BIOMOM	Data recoded for respondent confidentiality
P2BMDAYS	P2 NRQ120 # DAYS SCHEDULED TO SEE BIOMOM	Data recoded for respondent confidentiality
P2BMRELS	P2 NRQ124 DESCRIBE RELATION W/BIOMOM	Data recoded for respondent confidentiality
P2BMLVMN	P2 NRQ250 BIOMOM LIVES # MINUTES AWAY	Data recoded for respondent confidentiality
P2ADMCON	P2 NRQ040 TIME FROM LAST CONTACT-ADPMOM	Data suppressed for respondent confidentialit
P2AMDYWK	P2 NRQ050 #DAYS CHD SAW ADPMOM LAST 4WKS	Data suppressed for respondent confidentialit
P2AMDAYS	P2 NRQ120 # DAYS SCHLD TO SEE ADPMOM	Data suppressed for respondent confidentialit
P2AMNITE	P2 NRQ121 # NIGHTS STAYED WITH ADPMOM	Data suppressed for respondent confidentialit
P2AMMISS	P2 NRQ122 MISSED SCHLD VISIT W/ ADPMOM	Data suppressed for respondent confidentialit
P2AMPHON	P2 NRQ123 # TALKED ON PHONE W/ADPMOM	Data suppressed for respondent confidentiality
P2AMRELS	P2 NRQ124 DESCRIBE RELATION W/ADPMOM	Data suppressed for respondent confidentialit
P2AMOPNH	P2 NRQ130 ADPMOM ATTEND SCH OPEN HOUSE	Data suppressed for respondent confidentialit
P2AMCONF	P2 NRQ135 ADPMOM ATTENDED PARENT-TCH MTG	Data suppressed for respondent confidentialit
P2AMACTV	P2 NRQ140 ADPMOM ATTENDED SCH ACTIVITY	Data suppressed for respondent confidentialit
P2AMVOL	P2 NRQ145 ADPMOM VOLUNTEERED AT SCHOOL	Data suppressed for respondent confidentialit
P2AMLVMN	P2 NRQ250 ADPMOM LIVES	Data suppressed for respondent confidentialit
P2AMLVST	P2 NRQ251 ADPMOM LIVES IN SAME STATE	Data suppressed for respondent confidentialit
P2BDCON	P2 NRQ040 TIME FROM LAST CONTACT-BIODAD	Data recoded for respondent confidentiality
P2BDDAYS	P2 NRQ120 # DAYS SCHEDULED TO SEE BIODAD	Data recoded for respondent confidentiality
P2BDRELS	P2 NRQ124 DESCRIBE RELATION W/BIODAD	Data recoded for respondent confidentiality
P2BDLVMN	P2 NRQ250 BIODAD LIVES # MINUTES AWAY	Data recoded for respondent confidentiality
P2CRT_N3	P2 NRQ210 ESTABLISHED LEGAL PATERNITY	Data suppressed for respondent confidentialit
P2ADDCON	P2 NRQ040 TIME FROM LAST CONTACT-ADPDAD	Data suppressed for respondent confidentialit
P2ADDYWK	P2 NRQ050 #DAYS CHD SAW ADPDAD LAST 4WKS	Data suppressed for respondent confidentialit
P2ADDAYS	P2 NRQ120 # DAYS SCHLD TO SEE ADPDAD	Data suppressed for respondent confidentialit
P2ADNITE	P2 NRQ121 # NIGHTS STAYED WITH ADPDAD	Data suppressed for respondent confidentialit
P2ADMISS	P2 NRQ122 MISSED SCHLD VISIT W/ ADPDAD	Data suppressed for respondent confidentialit
P2ADPHON	P2 NRQ123 # TALKED ON PHONE W/ADPDAD	Data suppressed for respondent confidentialit
P2ADRELS	P2 NRQ124 DESCRIBE RELATION W/ADPDAD	Data suppressed for respondent confidentialit
P2ADOPNH	P2 NRQ130 ADPDAD ATTEND SCH OPEN HOUSE	Data suppressed for respondent confidentialit
P2ADCONF	P2 NRQ135 ADPDAD ATTENDED PARENT-TCH MTG	Data suppressed for respondent confidentialit

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview-Continued

Variable name	Variable description	Comments
P2ADACTV	P2 NRQ140 ADPDAD ATTENDED SCH ACTIVITY	Data suppressed for respondent confidentiality
P2ADVOL	P2 NRQ145 ADPDAD VOLUNTEERED AT SCHOOL	Data suppressed for respondent confidentiality
P2ADLVMN	P2 NRQ250 ADPDAD LIVES	Data suppressed for respondent confidentiality
P2ADLVST	P2 NRQ251 ADPDAD LIVES IN SAME STATE	Data suppressed for respondent confidentiality
P2CSCRT	P2 NRQ261 CHILD SUPPORT-AWARDED BY COURT	Data suppressed due to administration error
P2CSWRT	P2 NRQ261 CHILD SUPPORT-AGREED IN WRITNG	Data suppressed due to administration error
P2CSINF	P2 NRQ261 CHILD SUPPORT-INFRML AGREEMENT	Data suppressed due to administration error
P2CSPEN	P2 NRQ261 CHILD SUPPORT-AWARD PENDING	Data suppressed due to administration error
P2CSNOAG	P2 NRQ261 CHILD SUPPORT-NO AGREEMENT	Data suppressed due to administration error
P2CSOTH	P2 NRQ261 CHILD SUPPORT PAYMENT - OTHER	Data suppressed due to administration error
P2CSBIOF	P2 NRQ264 AGREEMENT W/ BIOLOGICAL FATHER	Data suppressed for respondent confidentiality
P2CSBIOM	P2 NRQ264 AGREEMENT W/ BIOLOGICAL MOTHER	Data suppressed for respondent confidentiality
P2CSADPF	P2 NRQ264 AGREEMENT W/ ADOPTIVE FATHER	Data suppressed for respondent confidentiality
P2CSADPM	P2 NRQ264 AGREEMENT W/ ADOPTIVE MOTHER	Data suppressed for respondent confidentiality
P2RECPAY	P2 NRQ265 RCVD CH SUPPORT PAYMT LAST YR	Data suppressed due to administration error
P2PAYREG	P2 NRQ266 RCVD CH SUPT REGULARLY LAST YR	Data suppressed due to administration error
P21STWRD	P2 CHQ005 AGE SPOKE FIRST WORD	Data recoded for respondent confidentiality
P21STSTP	P2 CHQ006 AGE AT FIRST STEP W/O SUPPORT	Data recoded for respondent confidentiality
P2DENTIS	P2 CHQ010 LAST VISIT TO DENTIST	Data recoded for respondent confidentiality
P2DOCTOR	P2 CHQ020 LAST VISIT-ROUTINE HEALTH CARE	Data recoded for respondent confidentiality
P2DIAEAR	P2 CHQ023 DIAGNSE EAR INFECT SINCE ENT K	Data recoded for respondent confidentiality
P2KDECN	P2 CHQ024B EAR TREATMENT - DECONGEST	Data suppressed for respondent confidentiality
P2KTUBE	P2 CHQ024D EAR TREATMENT - EAR TUBES	Data suppressed for respondent confidentiality
P2KNODR	P2 CHQ024G EAR TREATMENT - NO DR VISIT	Data suppressed for respondent confidentiality
P2KOTHR	P2 CHQ024H EAR TREATMENT - OTHER	Data suppressed for respondent confidentiality
P2KFLSH	P2 CHQ024 EAR TREATMENT - FLUSH/IRRIG	Data suppressed for respondent confidentiality
P2KTONS	P2 CHQ024 EAR TREATMENT - TONSILS/ADNOID	Data suppressed for respondent confidentiality
P2KCHIR	P2 CHQ024 EAR TREATMENT - CHIROPRACTOR	Data suppressed for respondent confidentiality
P2KETLO	P2 CHQ025 EAR TUBES IN WHICH EAR	Data suppressed for respondent confidentiality
P2LRNDIS	P2 CHQ125 DIAGNOSIS - LEARN DISABILITY	Data suppressed for respondent confidentiality
P2ADD	P2 CHQ125 DIAGNOSIS - ADD	Data suppressed for respondent confidentiality
P2ADHA	P2 CHQ125 DIAGNOSIS - ADHD	Data suppressed for respondent confidentiality
P2DEVDLY	P2 CHQ125 DIAGNOSIS - DEVELOP DELAY	Data suppressed for respondent confidentiality
P2AUTSM	P2 CHQ125 DIAGNOSIS - AUTISM	Data suppressed for respondent confidentiality
P2DYSLXA	P2 CHQ125 DIAGNOSIS - DYSLEXIA	Data suppressed for respondent confidentiality
P2DYSCLC	P2 CHQ125 DIAGNOSIS - DYSCALCULIA	Data suppressed for respondent confidentiality
P2COGNTV	P2 CHQ125 DIAGNOSIS - SEVERE COGNITIVE	Data suppressed for respondent confidentiality
P2ORTHOP	P2 CHQ125 DIAGNOSIS - ORTHOPEDIC IMPAIR	Data suppressed for respondent confidentiality

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview—Continued

See note at end of exhibit.

Variable name	Variable description	Comments
P2EMODIS	P2 CHQ125 DIAGNOSIS - SER EMOTION DISTURB	Data suppressed for respondent confidentiali
P2TRMBRI	P2 CHQ125 DIAGNOSIS - TRAUMATIC BRAIN INJ	Data suppressed for respondent confidentiali
P2PNCDIS	P2 CHQ125 DIAGNOSIS - PANIC DISORDER	Data suppressed for respondent confidentiali
P2SEPANX	P2 CHQ125 DIAGNOSIS - SEPARATION ANXIETY	Data suppressed for respondent confidentiali
P2OCD	P2 CHQ125 DIAGNOSIS - OCD	Data suppressed for respondent confidentiali
P2GENANX	P2 CHQ125 DIAGNOSIS - GEN ANXIETY DIS	Data suppressed for respondent confidentiali
P2OTHANX	P2 CHQ125 DIAGNOSIS - OTHER ANXIETY DIS	Data suppressed for respondent confidentiali
P2BIPOLR	P2 CHQ125 DIAGNOSIS - BIPOLAR DISORDER	Data suppressed for respondent confidentiali
P2DEPRESS	P2 CHQ125 DIAGNOSIS - DEPRESSION	Data suppressed for respondent confidentiali
P2SENSDF	P2 CHQ125 DIAGNOSIS - SENSORY DEFICIT	Data suppressed for respondent confidentiali
P2AUTSPC	P2 CHQ126 TYPE OF AUTISM SPECRM DISORDER	Data suppressed for respondent confidentiali
P2AGELD	P2 CHQ130 AGE AT 1ST DIAGNS-LRN DISABLTY	Data suppressed for respondent confidentiali
P2AGELDU	P2 CHQ131 AGE 1ST DIAGNS-LRN DISBL UNIT	Data suppressed for respondent confidentiali
P2AGELDM	P2 CHQ135A AGE 1ST DIAGNS-LRN DIS MONTH	Data suppressed for respondent confidentiali
P2AGELDY	P2 CHQ135B AGE 1ST DIAGNS-LRN DIS YEAR	Data suppressed for respondent confidentiali
P2MEDLD	P2 CHQ140 TAKE PRESCRIPTION FOR LRN DIS	Data suppressed for respondent confidentiali
P2MEDLDL	P2 CHQ173 HOW LONG TAKING MED - LRN DIS	Data suppressed for respondent confidentiali
P2AGEADD	P2 CHQ130 AGE AT 1ST DIAGNS-ADD	Data suppressed for respondent confidentiali
P2AGEADU	P2 CHQ131 AGE 1ST DIAGNS-ADD UNIT	Data suppressed for respondent confidentiali
P2AGEADM	P2 CHQ135A AGE 1ST DIAGNS-ADD MONTH	Data suppressed for respondent confidentiali
P2AGEADY	P2 CHQ135B AGE 1ST DIAGNS-ADD YEAR	Data suppressed for respondent confidentiali
P2MEDAD	P2 CHQ140 TAKING PRESCRIPTION FOR ADD	Data suppressed for respondent confidentiali
P2RITALN1	P2 CHQ145A TAKING RITALIN-ADD	Data suppressed for respondent confidentiali
P2ADDRAL1	P2 CHQ145B TAKING ADDERALL-ADD	Data suppressed for respondent confidentiali
P2DEXEDR1	P2 CHQ145C TAKING DEXEDRINE-ADD	Data suppressed for respondent confidentiali
P2METADT1	P2 CHQ145D TAKING METADATE-ADD	Data suppressed for respondent confidentiali
P2CONCER1	P2 CHQ145E TAKING CONCERTA-ADD	Data suppressed for respondent confidentiali
P2STRTRR1	P2 CHQ145F TAKING STRATERRA-ADD	Data suppressed for respondent confidentiali
P2ADMDOT1	P2 CHQ145G TAKING SOMETHING ELSE-ADD	Data suppressed for respondent confidentiali
P2ADLTYP1	P2 CHQ150 TYPE OF ADDERALL-ADD	Data suppressed for respondent confidentiali
P2LOCMED1	P2 CHQ155 LOCATION TAKING RX-ADD	Data suppressed for respondent confidentiali
P2AGEAHD	P2 CHQ130 AGE AT 1ST DIAGNS-ADHD	Data suppressed for respondent confidentiali
P2AGEHDU	P2 CHQ131 AGE 1ST DIAGNS-ADHD UNIT	Data suppressed for respondent confidentiali
P2AGEHDM	P2 CHQ135A AGE 1ST DIAGNS-ADHD MONTH	Data suppressed for respondent confidentiali
P2AGEHDY	P2 CHQ135B AGE 1ST DIAGNS-ADHD YEAR	Data suppressed for respondent confidentiali
P2MEDHD	P2 CHQ140 TAKE PRESCRIPTION FOR ADHD	Data suppressed for respondent confidentiali
P2RITALN2	P2 CHQ145A TAKING RITALIN-ADHD	Data suppressed for respondent confidentiali
P2ADDRAL2	P2 CHQ145B TAKING ADDERALL-ADHD	Data suppressed for respondent confidentiali

Variable name	Variable description	Comments
P2DEXEDR2	P2 CHQ145C TAKING DEXEDRINE-ADHD	Data suppressed for respondent confidentialit
P2METADT2	P2 CHQ145D TAKING METADATE-ADHD	Data suppressed for respondent confidentialit
P2CONCER2	P2 CHQ145E TAKING CONCERTA-ADHD	Data suppressed for respondent confidentialit
P2STRTRR2	P2 CHQ145F TAKING STRATERRA-ADHD	Data suppressed for respondent confidentialit
P2ADMDOT2	P2 CHQ145G TAKING SOMETHING ELSE-ADHD	Data suppressed for respondent confidentialit
P2ADLTYP2	P2 CHQ150 TYPE OF ADDERALL-ADHD	Data suppressed for respondent confidentialit
P2LOCMED2	P2 CHQ155 LOCATION TAKING RX-ADHD	Data suppressed for respondent confidentialit
P2MEDLAD	P2 CHQ173 HOW LONG TAKING MED - ADD	Data suppressed for respondent confidentialit
P2MEDLHD	P2 CHQ173 HOW LONG TAKING MED - ADHD	Data suppressed for respondent confidentialit
P2AGEDV	P2 CHQ130 AGE AT 1ST DIAGNS-DEV DELAY	Data suppressed for respondent confidentialit
P2AGEDVU	P2 CHQ131 AGE 1ST DIAGNS-DEV DEL UNIT	Data suppressed for respondent confidentialit
P2AGEDVM	P2 CHQ135A AGE 1ST DIAGNS-DEV DEL MONTH	Data suppressed for respondent confidentialit
P2AGEDVY	P2 CHQ135B AGE 1ST DIAGNS-DEV DEL YEAR	Data suppressed for respondent confidentialit
P2MEDDV	P2 CHQ140 TAKE PRESCRIPTION FOR DEV DEL	Data suppressed for respondent confidentialit
P2MEDDVL	P2 CHQ173 HOW LONG TAKING MED - DEV DEL	Data suppressed for respondent confidentialit
P2AGEAU	P2 CHQ130 AGE AT 1ST DIAGNS-AUTISM	Data suppressed for respondent confidentialit
P2AGEAUU	P2 CHQ131 AGE 1ST DIAGNS-AUTISM UNIT	Data suppressed for respondent confidentialit
P2AGEAUM	P2 CHQ135A AGE 1ST DIAGNS-AUTISM MONTH	Data suppressed for respondent confidentialit
P2AGEAUY	P2 CHQ135B AGE 1ST DIAGNS-AUTISM YEAR	Data suppressed for respondent confidentialit
P2MEDAU	P2 CHQ140 TAKE PRESCRIPTION FOR AUTISM	Data suppressed for respondent confidentialit
P2MEDAUL	P2 CHQ173 HOW LONG TAKING MED - AUTISM	Data suppressed for respondent confidentialit
P2AGEDL	P2 CHQ130 AGE AT 1ST DIAGNS-DYSLXIA	Data suppressed for respondent confidentialit
P2AGEDLU	P2 CHQ131 AGE 1ST DIAGNS-DYSLXIA UNIT	Data suppressed for respondent confidentialit
P2AGEDLM	P2 CHQ135A AGE 1ST DIAGNS-DYSLXIA MONTH	Data suppressed for respondent confidentialit
P2AGEDLY	P2 CHQ135B AGE 1ST DIAGNS-DYSLXIA YEAR	Data suppressed for respondent confidentialit
P2MEDDL	P2 CHQ140 TAKE PRESCRIPTION FOR DYSLXIA	Data suppressed for respondent confidentialit
P2MEDDLL	P2 CHQ173 HOW LONG TAKING MED - DYSLXIA	Data suppressed for respondent confidentialit
P2AGEDC	P2 CHQ130 AGE AT 1ST DIAGNS-DYSCALCULIA	Data suppressed for respondent confidentialit
P2AGEDCU	P2 CHQ131 AGE 1ST DIAGNS-DYSCLC UNIT	Data suppressed for respondent confidentialit
P2AGEDCM	P2 CHQ135A AGE 1ST DIAGNS-DYSCLC MONTH	Data suppressed for respondent confidentialit
P2AGEDCY	P2 CHQ135B AGE 1ST DIAGNS-DYSCLC YEAR	Data suppressed for respondent confidentialit
P2MEDDC	P2 CHQ140 TAKE PRESCRIPTION FOR DYSCLC	Data suppressed for respondent confidentialit
P2MEDDCL	P2 CHQ173 HOW LONG TAKING MED - DYSCLC	Data suppressed for respondent confidentialit
P2AGECD	P2 CHQ130 AGE AT 1ST DIAGNS-COGN DIS/MR	Data suppressed for respondent confidentialit
P2AGECDU	P2 CHQ131 AGE 1ST DIAGNS-COG/MR UNIT	Data suppressed for respondent confidentialit
P2AGECDM	P2 CHQ135A AGE 1ST DIAGNS-COG/MR MONTH	Data suppressed for respondent confidentialit
P2AGECDY	P2 CHQ135B AGE 1ST DIAGNS-COG/MR YEAR	Data suppressed for respondent confidentialit
P2MEDCD	P2 CHQ140 TAKE PRESCRIPTION FOR COG/MR	Data suppressed for respondent confidentialit

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview-Continued

Variable name	Variable description	Comments
P2MEDCDL	P2 CHQ173 HOW LONG TAKING MED - COG/MR	Data suppressed for respondent confidentialit
P2AGEOR	P2 CHQ130 AGE AT 1ST DIAGNS-ORTHO IMPAIR	Data suppressed for respondent confidentialit
P2AGEORU	P2 CHQ131 AGE 1ST DIAGNS-ORTHO UNIT	Data suppressed for respondent confidentialit
P2AGEORM	P2 CHQ135A AGE 1ST DIAGNS-ORTHO MONTH	Data suppressed for respondent confidentialit
P2AGEORY	P2 CHQ135B AGE 1ST DIAGNS-ORTHO YEAR	Data suppressed for respondent confidentialit
P2MEDOR	P2 CHQ140 TAKE PRESCRIPTION FOR ORTHO	Data suppressed for respondent confidentialit
P2MEDORL	P2 CHQ173 HOW LONG TAKING MED - ORTHO	Data suppressed for respondent confidentialit
P2AGEEM	P2 CHQ130 AGE AT 1ST DIAGNS-EMOT DISTRB	Data suppressed for respondent confidentialit
P2AGEEMU	P2 CHQ131 AGE 1ST DIAGNS-EMOT UNIT	Data suppressed for respondent confidentialit
P2AGEEMM	P2 CHQ135A AGE 1ST DIAGNS-EMOT MONTH	Data suppressed for respondent confidentialit
P2AGEEMY	P2 CHQ135B AGE 1ST DIAGNS-EMOT YEAR	Data suppressed for respondent confidentialit
P2MEDEM	P2 CHQ140 TAKE PRESCRIPTION FOR EMOT	Data suppressed for respondent confidentialit
P2MEDEML	P2 CHQ173 HOW LONG TAKING MED - EMOT	Data suppressed for respondent confidentialit
P2AGEBR	P2 CHQ130 AGE AT 1ST DIAGNS-BRAIN INJRY	Data suppressed for respondent confidentialit
P2AGEBRU	P2 CHQ131 AGE 1ST DIAGNS-BRAIN UNIT	Data suppressed for respondent confidentialit
P2AGEBRM	P2 CHQ135A AGE 1ST DIAGNS-BRAIN MONTH	Data suppressed for respondent confidentialit
P2AGEBRY	P2 CHQ135B AGE 1ST DIAGNS-BRAIN YEAR	Data suppressed for respondent confidentialit
P2MEDBR	P2 CHQ140 TAKE PRESCRIPTION FOR BRAIN	Data suppressed for respondent confidentialit
P2MEDBRL	P2 CHQ173 HOW LONG TAKING MED - BRAIN	Data suppressed for respondent confidentiality
P2AGEPC	P2 CHQ130 AGE AT 1ST DIAGNS-PANIC DIS	Data suppressed for respondent confidentialit
P2AGEPCU	P2 CHQ131 AGE 1ST DIAGNS-PANIC UNIT	Data suppressed for respondent confidentialit
P2AGEPCM	P2 CHQ135A AGE 1ST DIAGNS-PANIC MONTH	Data suppressed for respondent confidentialit
P2AGEPCY	P2 CHQ135B AGE 1ST DIAGNS-PANIC YEAR	Data suppressed for respondent confidentialit
P2MEDPC	P2 CHQ140 TAKE PRESCRIPTION FOR PANIC	Data suppressed for respondent confidentialit
P2MEDPCL	P2 CHQ173 HOW LONG TAKING MED - PANIC	Data suppressed for respondent confidentialit
P2AGESA	P2 CHQ130 AGE AT 1ST DIAGNS-SEP ANXTY	Data suppressed for respondent confidentialit
P2AGESAU	P2 CHQ131 AGE 1ST DIAGNS-SEP ANX UNIT	Data suppressed for respondent confidentialit
P2AGESAM	P2 CHQ135A AGE 1ST DIAGNS-SEP ANX MONTH	Data suppressed for respondent confidentialit
P2AGESAY	P2 CHQ135B AGE 1ST DIAGNS-SEP ANX YEAR	Data suppressed for respondent confidentialit
P2MEDSA	P2 CHQ140 TAKE PRESCRIPTION FOR SEP ANX	Data suppressed for respondent confidentialit
P2MEDSAL	P2 CHQ173 HOW LONG TAKING MED - SEP ANX	Data suppressed for respondent confidentialit
P2AGEOC	P2 CHQ130 AGE AT 1ST DIAGNS-OCD	Data suppressed for respondent confidentiality
P2AGEOCU	P2 CHQ131 AGE 1ST DIAGNS-OCD UNIT	Data suppressed for respondent confidentiality
P2AGEOCM	P2 CHQ135A AGE 1ST DIAGNS-OCD MONTH	Data suppressed for respondent confidentialit
P2AGEOCY	P2 CHQ135B AGE 1ST DIAGNS-OCD YEAR	Data suppressed for respondent confidentialit
P2MEDOC	P2 CHQ140 TAKE PRESCRIPTION FOR OCD	Data suppressed for respondent confidentialit
P2MEDOCL	P2 CHQ173 HOW LONG TAKING MED - OCD	Data suppressed for respondent confidentialit
P2AGEGA	P2 CHQ130 AGE AT 1ST DIAGNS-GAD	Data suppressed for respondent confidentialit

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview-Continued

Variable name	Variable description	Comments
P2AGEGAU	P2 CHQ131 AGE 1ST DIAGNS-GAD UNIT	Data suppressed for respondent confidentiality
P2AGEGAM	P2 CHQ135A AGE 1ST DIAGNS-GAD MONTH	Data suppressed for respondent confidentiality
P2AGEGAY	P2 CHQ135B AGE 1ST DIAGNS-GAD YEAR	Data suppressed for respondent confidentiality
P2MEDGA	P2 CHQ140 TAKE PRESCRIPTION FOR GAD	Data suppressed for respondent confidentiality
P2MEDGAL	P2 CHQ173 HOW LONG TAKING MED - GAD	Data suppressed for respondent confidentiality
P2AGEAN	P2 CHQ130 AGE AT 1ST DIAGNS-OTH ANXTY DS	Data suppressed for respondent confidentiality
P2AGEANU	P2 CHQ131 AGE 1ST DIAGNS-ANXTY UNIT	Data suppressed for respondent confidentiality
P2AGEANM	P2 CHQ135A AGE 1ST DIAGNS-ANXTY MONTH	Data suppressed for respondent confidentiality
P2AGEANY	P2 CHQ135B AGE 1ST DIAGNS-ANXTY YEAR	Data suppressed for respondent confidentiality
P2MEDAN	P2 CHQ140 TAKE PRESCRIPTION FOR ANXTY	Data suppressed for respondent confidentiality
P2MEDANL	P2 CHQ173 HOW LONG TAKING MED - ANXTY	Data suppressed for respondent confidentiality
P2AGEBI	P2 CHQ130 AGE AT 1ST DIAGNS-BIPOLAR	Data suppressed for respondent confidentiality
P2AGEBIU	P2 CHQ131 AGE 1ST DIAGNS-BIPLR UNIT	Data suppressed for respondent confidentiality
P2AGEBIM	P2 CHQ135A AGE 1ST DIAGNS-BIPLR MONTH	Data suppressed for respondent confidentiality
P2AGEBIY	P2 CHQ135B AGE 1ST DIAGNS-BIPLR YEAR	Data suppressed for respondent confidentiality
P2MEDBI	P2 CHQ140 TAKE PRESCRIPTION FOR BIPLR	Data suppressed for respondent confidentiality
P2MEDBIL	P2 CHQ173 HOW LONG TAKING MED - BIPLR	Data suppressed for respondent confidentiality
P2AGEDE	P2 CHQ130 AGE AT 1ST DIAGNS-DEPRSSION	Data suppressed for respondent confidentiality
P2AGEDEU	P2 CHQ131 AGE 1ST DIAGNS-DEPRSS UNIT	Data suppressed for respondent confidentiality
P2AGEDEM	P2 CHQ135A AGE 1ST DIAGNS-DEPRSS MONTH	Data suppressed for respondent confidentiality
P2AGEDEY	P2 CHQ135B AGE 1ST DIAGNS-DEPRSS YEAR	Data suppressed for respondent confidentiality
P2MEDDE	P2 CHQ140 TAKE PRESCRIPTION FOR DEPRSS	Data suppressed for respondent confidentiality
P2MEDDEL	P2 CHQ173 HOW LONG TAKING MED - DEPRSS	Data suppressed for respondent confidentiality
P2AGEOT	P2 CHQ130 AGE AT 1ST DIAGNS-OTHER	Data suppressed for respondent confidentiality
P2AGEOTU	P2 CHQ131 AGE 1ST DIAGNS-OTH UNIT	Data suppressed for respondent confidentiality
P2AGEOTM	P2 CHQ135A AGE 1ST DIAGNS-OTH MONTH	Data suppressed for respondent confidentiality
P2AGEOTY	P2 CHQ135B AGE 1ST DIAGNS-OTH YEAR	Data suppressed for respondent confidentiality
P2MEDOT	P2 CHQ140 TAKE PRESCRIPTION FOR OTH	Data suppressed for respondent confidentiality
2MEDOTL	P2 CHQ173 HOW LONG TAKING MED - OTH	Data suppressed for respondent confidentiality
P2CHEW	P2 CHQ206C COMMUN ISSUE - CHEWING	Data suppressed for respondent confidentiality
P2SWALLO	P2 CHQ206D COMMUN ISSUE - SWALLOW	Data suppressed for respondent confidentiality
P2CLEFT	P2 CHQ206F COMMUN ISSUE- CLEFT	Data suppressed for respondent confidentiality
P2ABNRML	P2 CHQ206G COMMUN ISSUE - ABNORMAL	Data suppressed for respondent confidentiality
P2MALFRM	P2 CHQ206H COMMUN ISSUE - MALFORM EAR	Data suppressed for respondent confidentiality
P2DEHEAR	P2 CHQ216 DESCRIBE HEARING	Data recoded for respondent confidentiality
P2HEARWH	P2 CHQ217 HEAR WHISPER IN QUIET ROOM	Data suppressed for respondent confidentiality
P2HEARNO	P2 CHQ218 HEAR NORMAL IN QUIET ROOM	Data suppressed for respondent confidentiality
P2HEARQT	P2 CHQ219 HEAR SHOUT IN QUIET ROOM	Data suppressed for respondent confidentiality

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview-Continued

Variable name	Variable description	Comments
P2HEARYL	P2 CHQ220 HEAR WHEN SHOUT IN EAR	Data suppressed for respondent confidentiality
P2DESCHR	P2 CHQ222 BEST DESCRIBES HEARING	Data suppressed for respondent confidentiality
P2EARWX	P2 CHQ246 HEARING DIAGNOSIS-EAR WAX	Data suppressed for respondent confidentialit
P2CLDFRM	P2 CHQ246 HEARING DIAGNOSIS-CANAL DEFORM	Data suppressed for respondent confidentialit
P2EARSCK	P2 CHQ246 HEARING DIAGNOSIS-EAR INFECTN	Data suppressed for respondent confidentialit
P2FLDNER	P2 CHQ246 HEARING DIAGNOSIS-FLUID IN EAR	Data suppressed for respondent confidentialit
P2EARDRM	P2 CHQ246 HEARING DIAGNOSIS-EAR DRUM PRB	Data suppressed for respondent confidentialit
P2ILLNES	P2 CHQ246 HEARING DIAGNOSIS-ILLNESS	Data suppressed for respondent confidentialit
P2CMV	P2 CHQ246 HEARING DIAGNOSIS-CMV	Data suppressed for respondent confidentialit
P2OTOTXC	P2 CHQ246 HEARING DIAGNOSIS-OTOTOXIC	Data suppressed for respondent confidentialit
P2NOISE	P2 CHQ246 HEARING DIAGNOSIS-NOISE EXP	Data suppressed for respondent confidentialit
P2GENES	P2 CHQ246 HEARING DIAGNOSIS-GENETIC	Data suppressed for respondent confidentialit
P2HDINJY	P2 CHQ246 HEARING DIAGNOSIS-HEAD INJURY	Data suppressed for respondent confidentialit
P2SURGRY	P2 CHQ246 HEARING DIAGNOSIS-SURGERY	Data suppressed for respondent confidentialit
P2NRVDF	P2 CHQ246 HEARING DIAGNOSIS-NERVE DEAF	Data suppressed for respondent confidentialit
P2CAPDIS	P2 CHQ246 HEARING DIAGNOSIS-CAP DISORDER	Data suppressed for respondent confidentialit
P2DEAF	P2 CHQ246 HEARING DIAGNOSIS-DEAF	Data suppressed for respondent confidentialit
P2HROTHR	P2 CHQ246 HEARING DIAGNOSIS-OTHER	Data suppressed for respondent confidentialit
P2HRLSDK	P2 CHQ246 HEARING DIAGNOSIS-CAUSE UNKNWN	Data suppressed for respondent confidentialit
P2AGHCM1	P2 CHQ250B AGE 1ST DIAGNS-COMMUN MO	Data suppressed for respondent confidentialit
P2AGHCY1	P2 CHQ250C AGE 1ST DIAGNS-COMMUN YR	Data suppressed for respondent confidentialit
P2DTHCM1	P2 CHQ255A L1 COMMUN DIAG DATE - MONTH	Data suppressed for respondent confidentialit
P2DTHCY1	P2 CHQ255B L1 COMMUN DIAG DATE - YEAR	Data suppressed for respondent confidentialit
P2AGHCU2	P2 CHQ250A AGE 1ST DIAGNS-HEARING UNT	Data suppressed for respondent confidentialit
P2AGHCM2	P2 CHQ250B AGE 1ST DIAGNS-HEARING MO	Data suppressed for respondent confidentialit
P2AGHCY2	P2 CHQ250C AGE 1ST DIAGNS-HEARING YR	Data suppressed for respondent confidentialit
P2DTHCM2	P2 CHQ255A L2 HEARING DIAG DATE - MONTH	Data suppressed for respondent confidentialit
P2DTHCY2	P2 CHQ255B L2 HEARING DIAG DATE - YEAR	Data suppressed for respondent confidentialit
P2EVHAID	P2 CHQ256 EVER WORN HEARING AID	Data suppressed for respondent confidentialit
P21REHAU	P2 CHQ257A 1ST RECOMMEND HEARING AID - UNIT	Data suppressed for respondent confidentialit
P21REHAM	P2 CHQ257B 1ST RECOMMEND HEARING AID - MONTH	Data suppressed for respondent confidentialit
P21REHAY	P2 CHQ257C 1ST RECOMMEND HEARING AID - YEAR	Data suppressed for respondent confidentialit
P2AIDSCH	P2 CHQ258 HOW OFTEN HEAR AID IN SCHOOL	Data suppressed for respondent confidentialit
P2AIDWHS	P2 CHQ259 HEAR WHISPER IN QUIET RM W/AID	Data suppressed for respondent confidentialit
P2AIDREG	P2 CHQ260 HEAR NORMAL IN QUIET RM W/AID	Data suppressed for respondent confidentialit
P2AIDSHT	P2 CHQ261 HEAR SHOUT IN QUIET RM W/AID	Data suppressed for respondent confidentialit
P2AIDEAR	P2 CHQ262 HEAR SHOUT INTO EAR W/AID	Data suppressed for respondent confidentialit
P2DRREHA	P2 CHQ263 DOCTOR RECOMMEND HEAR AID	Data suppressed for respondent confidentiality

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview-Continued

Variable name	Variable description	Comments
P2DR1REU	P2 CHQ264A DOCTOR 1ST RECOM AID - UNIT	Data suppressed for respondent confidentiality
P2DR1REM	P2 CHQ264B DOCTOR 1ST RECOM AID - MONTH	Data suppressed for respondent confidentiality
P2DR1REY	P2 CHQ264C DOCTOR 1ST RECOM AID - YEAR	Data suppressed for respondent confidentiality
P2COCHLE	P2 CHQ270 CHILD HAS COCHLEAR IMPLANTS	Data suppressed for respondent confidentiality
P2IMPLNT	P2 CHQ271 YEAR OF IMPLANT	Data suppressed for respondent confidentiality
P2COAGEU	P2 CHQ272A AGE AT IMPLANT - UNIT	Data suppressed for respondent confidentiality
P2COAGEM	P2 CHQ272B AGE AT IMPLANT - MONTH	Data suppressed for respondent confidentiality
P2COAGEY	P2 CHQ272C AGE AT IMPLANT - YEAR	Data suppressed for respondent confidentiality
P2LIMPYR	P2 CHQ273 LEFT EAR IMPLANT YEAR	Data suppressed for respondent confidentiality
P2RIMPYR	P2 CHQ274 RIGHT EAR IMPLANT YEAR	Data suppressed for respondent confidentiality
P2ALIMPU	P2 CHQ275A AGE L IMPLANT - UNIT	Data suppressed for respondent confidentiality
P2ALIMPM	P2 CHQ275B AGE L IMPLANT - MONTH	Data suppressed for respondent confidentiality
P2ALIMPY	P2 CHQ275C AGE L IMPLANT - YEAR	Data suppressed for respondent confidentiality
P2ARIMPU	P2 CHQ276A AGE R IMPLANT - UNIT	Data suppressed for respondent confidentiality
P2ARIMPM	P2 CHQ276B AGE R IMPLANT - MONTH	Data suppressed for respondent confidentiality
P2ARIMPY	P2 CHQ276C AGE R IMPLANT - YEAR	Data suppressed for respondent confidentiality
P2COCHWH	P2 CHQ277 HR WHISPER IN QUIET RM W/COCH	Data suppressed for respondent confidentiality
P2COCHRG	P2 CHQ278 HEAR NORMAL IN QUIET RM W/COCH	Data suppressed for respondent confidentiality
P2COCHSH	P2 CHQ279 HEAR SHOUT IN QUIET RM W/COCH	Data suppressed for respondent confidentiality
P2COCHER	P2 CHQ280 HEAR SHOUT INTO EAR W/COCH	Data suppressed for respondent confidentiality
P2VISCLR	P2 CHQ301 VISION DIAGNOSIS - COLOR BLIND	Data suppressed for respondent confidentiality
P2VISCRS	P2 CHQ301 VISION DIAGNOSIS - CROSS EYED	Data suppressed for respondent confidentiality
P2VISRET	P2 CHQ301 VISION DIAGNOSIS - RETINOPATHY	Data suppressed for respondent confidentiality
P2VISBLN	P2 CHQ301 VISION DIAGNOSIS - BLINDNESS	Data suppressed for respondent confidentiality
P2OFTLEN	P2 CHQ312 HOW OFTEN CHD WEAR GLASS/LENS	Data recoded for respondent confidentiality
P2HVELEN	P2 CHQ313 DOES CHILD HAVE GLASSES/LENS	Data suppressed for respondent confidentiality
P2HSCALE	P2 CHQ330 1-5 SCALE OF CHILD'S HEALTH	Data recoded for respondent confidentiality
P2BRALLE	P2 CHQ345L BRAILLE INSTRCTION BF SCHL YR	Data suppressed for respondent confidentiality
P2SGNLNG	P2 CHQ345M SIGN LANG INSTR BF SCHL YR	Data suppressed for respondent confidentiality
P2AGSVM1	P2 CHQ375B AGE 1ST BEGAN SRVC MONTH	Data suppressed for respondent confidentiality
P2AGSVY1	P2 CHQ375C AGE 1ST BEGAN SRVC YEAR	Data suppressed for respondent confidentiality
P2SVSMO	P2 CHQ380A MONTH 1ST BEGAN SRVC	Data suppressed for respondent confidentiality
P2SVSYR	P2 CHQ380B YEAR 1ST BEGAN SRVC	Data suppressed for respondent confidentiality
P2LASTMM	P2 CHQ390A LAST RECEIVED SERVICES MONTH	Data suppressed for respondent confidentiality
P2LASTYY	P2 CHQ390B LAST RECEIVED SERVICES YEAR	Data suppressed for respondent confidentiality
P2SFNDHP	P2 PPQ290 STEP FATHER NEEDS PROF HELP	Data suppressed for respondent confidentiality
P2SFRVHP	P2 PPQ300 STEP FATHER RCVD PROF HELP	Data suppressed for respondent confidentiality
P2TINCTH	P2 PAQ120 TOTAL HOUSEHOLD INCOME (\$-LOW)	Data suppressed for respondent confidentiality
P2LANGUA	P2 CMQ690 LANGUAGE INTERVIEW CONDUCTED	Data recoded for respondent confidentiality

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview—Continued

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) Kindergarten–First Grade (K-1) Public-Use Data File.

Variable name	Variable description	Comments
A1AHRSDA	A1 A2 NUMBER OF CLASS HOURS PER DAY-AM	Data recoded for respondent confidentiality
A1PHRSDA	A1 A2 NUMBER OF CLASS HOURS PER DAY-PM	Data recoded for respondent confidentiality
A1DHRSDA	A1 A2 NUMBER OF CLASS HOURS PER DAY-AD	Data recoded for respondent confidentiality
A1ADYSWK	A1 A3 NUMBER OF DAYS PER WEEK-AM	Data recoded for respondent confidentiality
A1PDYSWK	A1 A3 NUMBER OF DAYS PER WEEK-PM	Data recoded for respondent confidentiality
A1DDYSWK	A1 A3 NUMBER OF DAYS PER WEEK-AD	Data recoded for respondent confidentiality
A1AREGK	A1 A4A TCH REGULAR 1-YR KINDERGARTEN-AM	Data suppressed for respondent confidentialit
A1PREGK	A1 A4A TCH REGULAR 1-YR KINDERGARTEN-PM	Data suppressed for respondent confidentialit
A1A2YRK1	A1 A4B TEACHES 1ST YR OF 2-YR K-AM	Data suppressed for respondent confidentialit
A1D2YRK1	A1 A4B TEACHES 1ST YR OF 2-YR K-AD	Data suppressed for respondent confidentialit
A1ATRNK	A1 A4D TCH TRANSITIONAL KINDERGARTEN-AM	Data suppressed for respondent confidentialit
A1PTRNK	A1 A4D TCH TRANSITIONAL KINDERGARTEN-PM	Data suppressed for respondent confidentialit
A1DTRNK	A1 A4D TCH TRANSITIONAL KINDERGARTEN-AD	Data suppressed for respondent confidentialit
A1DPR1ST	A1 A4E TEACHES PRE-1ST GRADE AFTER K-AD	Data suppressed for respondent confidentialit
A1AUNGR	A1 A4F TEACHES UNGRADED CLASS-AM	Data suppressed for respondent confidentialit
A1PUNGR	A1 A4F TEACHES UNGRADED CLASS-PM	Data suppressed for respondent confidentialit
A1DUNGR	A1 A4F TEACHES UNGRADED CLASS-AD	Data suppressed for respondent confidentialit
A1AMULGR	A1 A4G TEACHES MULTIGRADE CLASS-AM	Data suppressed for respondent confidentiality
A1PMULGR	A1 A4G TEACHES MULTIGRADE CLASS-PM	Data suppressed for respondent confidentiality
A1DMULGR	A1 A4G TEACHES MULTIGRADE CLASS-AD	Data suppressed for respondent confidentiality
A1ASPCED	A1 A4H TEACHES SPECIAL ED CLASS-AM	Data suppressed for respondent confidentiality
A1PSPCED	A1 A4H TEACHES SPECIAL ED CLASS-PM	Data suppressed for respondent confidentialit
A1DSPCED	A1 A4H TEACHES SPECIAL ED CLASS-AD	Data suppressed for respondent confidentialit
A1ATPREK	A1 A6A MULTIGRADE HAS PREKINDERGARTEN-AM	Data suppressed for respondent confidentialit
A1PTPREK	A1 A6A MULTIGRADE HAS PREKINDERGARTEN-PM	Data suppressed for respondent confidentialit
A1DTPREK	A1 A6A MULTIGRADE HAS PREKINDERGARTEN-AD	Data suppressed for respondent confidentialit
A1ATTRNK	A1 A6B MULTIGRADE HAS TRANSITIONAL K-AM	Data suppressed for respondent confidentiality
A1PTTRNK	A1 A6B MULTIGRADE HAS TRANSITIONAL K-PM	Data suppressed for respondent confidentialit
A1DTTRNK	A1 A6B MULTIGRADE HAS TRANSITIONAL K-AD	Data suppressed for respondent confidentialit
A1ATREGK	A1 A6C MULTIGRADE HAS REGULAR K-AM	Data suppressed for respondent confidentialit
A1PTREGK	A1 A6C MULTIGRADE HAS REGULAR K-PM	Data suppressed for respondent confidentialit
A1DTREGK	A1 A6C MULTIGRADE HAS REGULAR K-AD	Data suppressed for respondent confidentialit
A1ATPRE1	A1 A6D MULTIGRADE HAS PRE-1ST GR-AM	Data suppressed for respondent confidentialit
A1PTPRE1	A1 A6D MULTIGRADE HAS PRE-1ST GR-PM	Data suppressed for respondent confidentialit
A1DTPRE1	A1 A6D MULTIGRADE HAS PRE-1ST GR-AD	Data suppressed for respondent confidentialit
A1AT1ST	A1 A6E MULTIGRADE HAS 1ST GR -AM	Data suppressed for respondent confidentialit
A1PT1ST	A1 A6E MULTIGRADE HAS 1ST GR -PM	Data suppressed for respondent confidentialit
A1DT1ST	A1 A6E MULTIGRADE HAS 1ST GR-AD	Data suppressed for respondent confidentialit

Exhibit 5. EC	CLS-K:2011 masked	variables, fa	all kindergarten f	teacher-level	teacher questionnaire
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Variable name	Variable description	Comments
A1AT2ND	A1 A6F MULTIGRADE HAS 2ND GR-AM	Data suppressed for respondent confidentiality
A1PT2ND	A1 A6F MULTIGRADE HAS 2ND GR-PM	Data suppressed for respondent confidentiality
A1DT2ND	A1 A6F MULTIGRADE HAS 2ND GR-AD	Data suppressed for respondent confidentiality
A1AT3RD	A1 A6G MULTIGRADE HAS 3RD OR HIGHER-AM	Data suppressed for respondent confidentiality
A1PT3RD	A1 A6G MULTIGRADE HAS 3RD OR HIGHER-PM	Data suppressed for respondent confidentiality
A1DT3RD	A1 A6G MULTIGRADE HAS 3RD OR HIGHER-AD	Data suppressed for respondent confidentiality
A1A3YROL	A1 A7A HOW MANY 3-YEAR-OLDS IN CLASS-AM	Data suppressed for respondent confidentiality
A1P3YROL	A1 A7A HOW MANY 3-YEAR-OLDS IN CLASS-PM	Data suppressed for respondent confidentiality
A1D3YROL	A1 A7A HOW MANY 3-YEAR-OLDS IN CLASS-AD	Data suppressed for respondent confidentiality
A1A4YROL	A1 A7B HOW MANY 4-YEAR-OLDS IN CLASS-AM	Data suppressed for respondent confidentiality
A1P4YROL	A1 A7B HOW MANY 4-YEAR-OLDS IN CLASS-PM	Data suppressed for respondent confidentiality
A1D4YROL	A1 A7B HOW MANY 4-YEAR-OLDS IN CLASS-AD	Data suppressed for respondent confidentiality
A1A5YROL	A1 A7C HOW MANY 5-YEAR-OLDS IN CLASS-AM	Data recoded for respondent confidentiality
A1P5YROL	A1 A7C HOW MANY 5-YEAR-OLDS IN CLASS-PM	Data recoded for respondent confidentiality
A1D5YROL	A1 A7C HOW MANY 5-YEAR-OLDS IN CLASS-AD	Data recoded for respondent confidentiality
A1A6YROL	A1 A7D HOW MANY 6-YEAR-OLDS IN CLASS-AM	Data recoded for respondent confidentiality
A1P6YROL	A1 A7D HOW MANY 6-YEAR-OLDS IN CLASS-PM	Data recoded for respondent confidentiality
A1D6YROL	A1 A7D HOW MANY 6-YEAR-OLDS IN CLASS-AD	Data recoded for respondent confidentiality
A1A7YROL	A1 A7E HOW MANY 7-YEAR-OLDS IN CLASS-AM	Data suppressed for respondent confidentiality
A1P7YROL	A1 A7E HOW MANY 7-YEAR-OLDS IN CLASS-PM	Data suppressed for respondent confidentiality
A1D7YROL	A1 A7E HOW MANY 7-YEAR-OLDS IN CLASS-AD	Data suppressed for respondent confidentiality
A1A8YROL	A1 A7F HOW MANY 8-YEAR-OLDS IN CLASS-AM	Data suppressed for respondent confidentiality
A1P8YROL	A1 A7F HOW MANY 8-YEAR-OLDS IN CLASS-PM	Data suppressed for respondent confidentiality
A1D8YROL	A1 A7F HOW MANY 8-YEAR-OLDS IN CLASS-AD	Data suppressed for respondent confidentiality
A1A9YROL	A1 A7G HOW MANY 9-YEAR-OLDS IN CLASS-AM	Data suppressed for respondent confidentiality
A1P9YROL	A1 A7G HOW MANY 9-YEAR-OLDS IN CLASS-PM	Data suppressed for respondent confidentiality
A1D9YROL	A1 A7G HOW MANY 9-YEAR-OLDS IN CLASS-AD	Data suppressed for respondent confidentiality
A1ATOTAG	A1 A7H TOTAL CLASS ENROLLMENT (AGE)-AM	Data recoded for respondent confidentiality
A1PTOTAG	A1 A7H TOTAL CLASS ENROLLMENT (AGE)-PM	Data recoded for respondent confidentiality
A1DTOTAG	A1 A7H TOTAL CLASS ENROLLMENT (AGE)-AD	Data recoded for respondent confidentiality
A1AHISP	A1 A8A # HISPANIC/LATINO (ANY RACE)-AM	Data recoded for respondent confidentiality
A1PHISP	A1 A8A # HISPANIC/LATINO (ANY RACE)-PM	Data recoded for respondent confidentiality
A1DHISP	A1 A8A # HISPANIC/LATINO (ANY RACE)-AD	Data recoded for respondent confidentiality
A1AAIAN	A1 A8B # AMER IND/ALASKA NAT-AM	Data suppressed for respondent confidentiality
A1PAIAN	A1 A8B # AMER IND/ALASKA NAT-PM	Data suppressed for respondent confidentiality
A1DAIAN	A1 A8B # AMER IND/ALASKA NAT-AD	Data suppressed for respondent confidentiality
A1AASIAN	A1 A8C # ASIAN-AM	Data suppressed for respondent confidentiality
A1PASIAN	A1 A8C # ASIAN-PM	Data suppressed for respondent confidentiality

Exhibit 5. ECLS-K:2011 masked variables, fall kindergarten teacher-level teacher questionnaire— Continued

Variable name	Variable description	Comments
A1DASIAN	A1 A8C # ASIAN-AD	Data suppressed for respondent confidentiality
A1ABLACK	A1 A8D # BLACK/AFRICAN AMERICAN-AM	Data recoded for respondent confidentiality
A1PBLACK	A1 A8D # BLACK/AFRICAN AMERICAN-PM	Data recoded for respondent confidentiality
A1DBLACK	A1 A8D # BLACK/AFRICAN AMERICAN-AD	Data recoded for respondent confidentiality
A1AHAWPI	A1 A8E # NATIVE HAWAIIAN/PAC ISL-AM	Data suppressed for respondent confidentiality
A1PHAWPI	A1 A8E # NATIVE HAWAIIAN/PAC ISL-PM	Data suppressed for respondent confidentiality
A1DHAWPI	A1 A8E # NATIVE HAWAIIAN/PAC ISL-AD	Data suppressed for respondent confidentiality
A1AWHITE	A1 A8F # WHITES-AM	Data recoded for respondent confidentiality
A1PWHITE	A1 A8F # WHITES-PM	Data recoded for respondent confidentiality
A1DWHITE	A1 A8F # WHITES-AD	Data recoded for respondent confidentiality
A1AMULTR	A1 A8G # TWO OR MORE RACES-AM	Data suppressed for respondent confidentiali
A1PMULTR	A1 A8G # TWO OR MORE RACES-PM	Data suppressed for respondent confidentiali
A1DMULTR	A1 A8G # TWO OR MORE RACES-AD	Data suppressed for respondent confidentiali
A1ATOTRA	A1 A8H TOTAL CLASS ENROLLMENT (RACES)-AM	Data recoded for respondent confidentiality
A1PTOTRA	A1 A8H TOTAL CLASS ENROLLMENT (RACES)-PM	Data recoded for respondent confidentiality
A1DTOTRA	A1 A8H TOTAL CLASS ENROLLMENT (RACES)-AD	Data recoded for respondent confidentiality
A1ABOYS	A1 A9 NUMBER OF BOYS IN CLASS-AM	Data suppressed for respondent confidentiali
A1PBOYS	A1 A9 NUMBER OF BOYS IN CLASS-PM	Data suppressed for respondent confidentiali
A1DBOYS	A1 A9 NUMBER OF BOYS IN CLASS-AD	Data suppressed for respondent confidentiali
A1AGIRLS	A1 A9 NUMBER OF GIRLS IN CLASS-AM	Data recoded for respondent confidentiality
A1PGIRLS	A1 A9 NUMBER OF GIRLS IN CLASS-PM	Data recoded for respondent confidentiality
A1DGIRLS	A1 A9 NUMBER OF GIRLS IN CLASS-AD	Data recoded for respondent confidentiality
A1ATOTGN	A1 A9 TOTAL CLASS ENROLLMENT (GENDER)-AM	Data recoded for respondent confidentiality
A1PTOTGN	A1 A9 TOTAL CLASS ENROLLMENT (GENDER)-PM	Data recoded for respondent confidentiality
A1DTOTGN	A1 A9 TOTAL CLASS ENROLLMENT (GENDER)-AD	Data recoded for respondent confidentiality
A1AREPK	A1 A10 NUMBER OF CHILDREN REPEATING K-AM	Data recoded for respondent confidentiality
A1PREPK	A1 A10 NUMBER OF CHILDREN REPEATING K-PM	Data recoded for respondent confidentiality
A1DREPK	A1 A10 NUMBER OF CHILDREN REPEATING K-AD	Data recoded for respondent confidentiality
A1AFRNIN	A1 A19C FRENCH USED FOR INSTRUCTION-AM	Data suppressed for respondent confidentiali
A1PFRNIN	A1 A19C FRENCH USED FOR INSTRUCTION-PM	Data suppressed for respondent confidentiali
A1DFRNIN	A1 A19C FRENCH USED FOR INSTRUCTION-AD	Data suppressed for respondent confidentiali
A1AVTNIN	A1 A19D VIETNAMESE USED FOR INSTRUCT-AM	Data suppressed for respondent confidentiali
A1PVTNIN	A1 A19D VIETNAMESE USED FOR INSTRUCT-PM	Data suppressed for respondent confidentiali
A1DVTNIN	A1 A19D VIETNAMESE USED FOR INSTRUCT-AD	Data suppressed for respondent confidentiali
A1ACHNIN	A1 A19E CHINESE LANG USED FOR INSTRCT-AM	Data suppressed for respondent confidentiali
A1PCHNIN	A1 A19E CHINESE LANG USED FOR INSTRCT-PM	Data suppressed for respondent confidentiali
A1DCHNIN	A1 A19E CHINESE LANG USED FOR INSTRCT-AD	Data suppressed for respondent confidentiali
A1AJPNIN	A1 A19F JAPANESE USED FOR INSTRUCTION-AM	Data suppressed for respondent confidentiali

ECLS-K:2011 masked variables, fall kindergarten teacher-level teacher questionnaire— Continued Exhibit 5.

Variable name	Variable description	Comments
A1PJPNIN	A1 A19F JAPANESE USED FOR INSTRUCTION-PM	Data suppressed for respondent confidentiality
A1DJPNIN	A1 A19F JAPANESE USED FOR INSTRUCTION-AD	Data suppressed for respondent confidentiality
A1AKRNIN	A1 A19G KOREAN USED FOR INSTRUCTION-AM	Data suppressed for respondent confidentiality
A1PKRNIN	A1 A19G KOREAN USED FOR INSTRUCTION-PM	Data suppressed for respondent confidentiality
A1DKRNIN	A1 A19G KOREAN USED FOR INSTRUCTION-AD	Data suppressed for respondent confidentiality
A1AFILIN	A1 A19H FILIPINO LANG USED FOR INSTRC-AM	Data suppressed for respondent confidentiality
A1PFILIN	A1 A19H FILIPINO LANG USED FOR INSTRC-PM	Data suppressed for respondent confidentiality
A1DFILIN	A1 A19H FILIPINO LANG USED FOR INSTRC-AD	Data suppressed for respondent confidentiality
A1AARBIN	A1 A19I ARABIC USED FOR INSTRUCTION-AM	Data suppressed for respondent confidentiality
A1PARBIN	A1 A19I ARABIC USED FOR INSTRUCTION-PM	Data suppressed for respondent confidentiality
A1DARBIN	A1 A19I ARABIC USED FOR INSTRUCTION-AD	Data suppressed for respondent confidentiality
A1AOTHIN	A1 A19J OTHER LANG USED FOR INSTRUCT-AM	Data suppressed for respondent confidentiality
A1POTHIN	A1 A19J OTHER LANG USED FOR INSTRUCT-PM	Data suppressed for respondent confidentiality
A1DOTHIN	A1 A19J OTHER LANG USED FOR INSTRUCT-AD	Data suppressed for respondent confidentiality
A1ASIGNL	A1 A19JA OS-SIGN LANG USED FOR INSTR-AM	Data suppressed for respondent confidentiality
A1PSIGNL	A1 A19JA OS-SIGN LANG USED FOR INSTR-PM	Data suppressed for respondent confidentiality
A1DSIGNL	A1 A19JA OS-SIGN LANG USED FOR INSTR-AD	Data suppressed for respondent confidentiality
A1BKSVIT	A1 A20 BOOKS IN VIETNAMESE	Data suppressed for respondent confidentiality
A1BKSJAP	A1 A20 BOOKS IN JAPANESE	Data suppressed for respondent confidentiality
A1BKSKOR	A1 A20 BOOKS IN KOREAN	Data suppressed for respondent confidentiality
A1BKSFIL	A1 A20 BOOKS IN A FILIPINO LANGUAGE	Data suppressed for respondent confidentiality
A1BKSARB	A1 A20 BOOKS IN ARABIC	Data suppressed for respondent confidentiality
A1BKINDN	A1 A20A BOOKS IN ASN INDIAN SUBCON LANG	Data suppressed for respondent confidentiality
A1BKSIGN	A1 A20A OS-BOOKS IN SIGN LANGUAGE	Data suppressed for respondent confidentiality
A1ACJPNS	A1 A22D STUDENTS SPEAK JAPANESE-AM	Data suppressed for respondent confidentiality
A1PCJPNS	A1 A22D STUDENTS SPEAK JAPANESE-PM	Data suppressed for respondent confidentiality
A1ACKRN	A1 A22E STUDENTS SPEAK KOREAN-AM	Data suppressed for respondent confidentiality
A1PCKRN	A1 A22E STUDENTS SPEAK KOREAN-PM	Data suppressed for respondent confidentiality
A1ASIGNS	A1 A22IB OS-STUDENTS USE SIGN LANG-AM	Data suppressed for respondent confidentiality
A1PSIGNS	A1 A22IB OS-STUDENTS USE SIGN LANG-PM	Data suppressed for respondent confidentiality
A1DSIGNS	A1 A22IB OS-STUDENTS USE SIGN LANG-AD	Data suppressed for respondent confidentiality
A1ANMELL	A1 A24 NUMBER ELL STUDENTS IN CLASS-AM	Data recoded for respondent confidentiality
A1PNMELL	A1 A24 NUMBER ELL STUDENTS IN CLASS-PM	Data recoded for respondent confidentiality
A1DNMELL	A1 A24 NUMBER ELL STUDENTS IN CLASS-AD	Data recoded for respondent confidentiality
AIANOELL	A1 A25A ELL STUDENTS GET NO ELL INST-AM	Data recoded for respondent confidentiality
A1PNOELL	A1 A25A ELL STUDENTS GET NO ELL INST-PM	Data recoded for respondent confidentiality
A1DNOELL	A1 A25A ELL STUDENTS GET NO ELL INST-AD	Data recoded for respondent confidentiality
A1AELLRE	A1 A25B ELL STUDENTS GET IN-CLASS INS-AM	Data recoded for respondent confidentiality

Exhibit 5. ECLS-K:2011 masked variables, fall kindergarten teacher-level teacher questionnaire— Continued

Variable name	Variable description	Comments
A1PELLRE	A1 A25B ELL STUDENTS GET IN-CLASS INS-PM	Data recoded for respondent confidentiality
A1DELLRE	A1 A25B ELL STUDENTS GET IN-CLASS INS-AD	Data recoded for respondent confidentiality
A1AELLOU	A1 A25C ELL STUDENTS GET OUTSIDE INS-AM	Data recoded for respondent confidentiality
A1PELLOU	A1 A25C ELL STUDENTS GET OUTSIDE INS-PM	Data recoded for respondent confidentiality
A1DELLOU	A1 A25C ELL STUDENTS GET OUTSIDE INS-AD	Data recoded for respondent confidentiality
A1ALGINS	A1 A26 SPEC SERVICES FOR ELL-AM	Data recoded for respondent confidentiality
<b>A1PLGINS</b>	A1 A26 SPEC SERVICES FOR ELL-PM	Data recoded for respondent confidentiality
A1ATVTNM	A1 A27C TCHR SPEAKS VIETNAMESE-AM	Data suppressed for respondent confidentiality
A1PTVTNM	A1 A27C TCHR SPEAKS VIETNAMESE-PM	Data suppressed for respondent confidentiality
A1DTVTNM	A1 A27C TCHR SPEAKS VIETNAMESE-AD	Data suppressed for respondent confidentiality
A1ATCHNS	A1 Q27D TCHR SPEAKS A CHINESE LNG-AM	Data suppressed for respondent confidentiality
A1PTCHNS	A1 Q27D TCHR SPEAKS A CHINESE LNG-PM	Data suppressed for respondent confidentiality
A1DTCHNS	A1 Q27D TCHR SPEAKS A CHINESE LNG-AD	Data suppressed for respondent confidentiality
A1ATJPNS	A1 A27E TCHR SPEAKS JAPANESE-AM	Data suppressed for respondent confidentiality
A1PTJPNS	A1 A27E TCHR SPEAKS JAPANESE-PM	Data suppressed for respondent confidentiality
A1DTJPNS	A1 A27E TCHR SPEAKS JAPANESE-AD	Data suppressed for respondent confidentiality
A1ATKRN	A1 A27F TCHR SPEAKS KOREAN-AM	Data suppressed for respondent confidentiality
A1PTKRN	A1 A27F TCHR SPEAKS KOREAN-PM	Data suppressed for respondent confidentiality
A1DTKRN	A1 A27F TCHR SPEAKS KOREAN-AD	Data suppressed for respondent confidentiality
A1ATFLPN	A1 A27G TCHR SPEAKS A FILIPINO LNG-AM	Data suppressed for respondent confidentiality
A1PTFLPN	A1 A27G TCHR SPEAKS A FILIPINO LNG-PM	Data suppressed for respondent confidentiality
A1DTFLPN	A1 A27G TCHR SPEAKS A FILIPINO LNG-AD	Data suppressed for respondent confidentiality
A1AARBIC	A1 A27H TCHR SPEAKS ARABIC-AM	Data suppressed for respondent confidentiality
A1PARBIC	A1 A27H TCHR SPEAKS ARABIC-PM	Data suppressed for respondent confidentiality
A1DARBIC	A1 A27H TCHR SPEAKS ARABIC-AD	Data suppressed for respondent confidentiality
A1AOTHLG	A1 A27I TCHR SPEAKS OTHER LANG-AM	Data suppressed for respondent confidentiality
A1POTHLG	A1 A27I TCHR SPEAKS OTHER LANG-PM	Data suppressed for respondent confidentiality
A1DOTHLG	A1 A27I TCHR SPEAKS OTHER LANG-AD	Data suppressed for respondent confidentiality
A1ASIGN	A1 A27IA OS-TCHR USES SIGN LANG-AM	Data suppressed for respondent confidentiality
A1PSIGN	A1 A27IA OS-TCHR USES SIGN LANG-PM	Data suppressed for respondent confidentiality
A1DSIGN	A1 A27IA OS-TCHR USES SIGN LANG-AD	Data suppressed for respondent confidentiality
A1ASPKTM	A1 A28 TIME TCH SPK NONENG LNG-AM	Data recoded for respondent confidentiality
A1PSPKTM	A1 A28 TIME TCH SPK NONENG LNG-PM	Data recoded for respondent confidentiality
A1TGEND	A1 C1 TEACHER'S GENDER	Data suppressed for respondent confidentiality
A1YRBORN	A1 C2 TEACHER'S YEAR OF BIRTH	Data recoded for respondent confidentiality
A1HISP	A1 C3 HISPANIC/LATINO (ANY RACE)	Data suppressed for respondent confidentiality
A1AMINAN	A1 C4 AMER IND/ALASKA NAT	Data suppressed for respondent confidentiality
A1ASIAN	A1 C4 ASIAN	Data suppressed for respondent confidentiality

Exhibit 5. ECLS-K:2011 masked variables, fall kindergarten teacher-level teacher questionnaire— Continued

Variable name	Variable description	Comments
A1BLACK	A1 C4 BLACK/AFRICAN AMERICAN	Data suppressed for respondent confidentiality
A1HAWPI	A1 C4 NATIVE HAWAIIAN/PAC ISL	Data suppressed for respondent confidentiality
A1WHITE	A1 C4 WHITE	Data suppressed for respondent confidentiality
A1HGHSTD	A1 C5 HIGHEST ED LEVEL TEACHER ACHIEVED	Data recoded for respondent confidentiality
A1YRSPRE	A1 C7A YRS TEACHER TAUGHT PRESCH/HEAD ST	Data suppressed for respondent confidentiality
A1YRSKIN	A1 C7B YRS TEACHER TAUGHT KINDERGARTEN	Data suppressed for respondent confidentiality
A1YRSFST	A1 C7C YRS TEACHER TAUGHT FIRST GRADE	Data suppressed for respondent confidentiality
A1YRS2T5	A1 C7D YRS TEACHER TAUGHT GRADE 2 TO 5	Data suppressed for respondent confidentiality
A1YRS6PL	A1 C7E YRS TEACHER TAUGHT GRADE 6 OR UP	Data suppressed for respondent confidentiality
A1YRSESL	A1 C7F YRS TEACHER TAUGHT ESL	Data suppressed for respondent confidentiality
A1YRSBIL	A1 C7G YRS TEACHER TAUGHT BILINGUAL ED	Data suppressed for respondent confidentiality
A1YRSDUL	A1 C7H YRS TEACHER TAUGHT DUAL LANGUAGE	Data suppressed for respondent confidentiality
A1YRSSPE	A1 C7I YRS TEACHER TAUGHT SPECIAL ED	Data suppressed for respondent confidentiality
A1YRSPE	A1 C7J YRS TEACHER TAUGHT PHYSICAL ED	Data suppressed for respondent confidentiality
A1YRSART	A1 C7K YRS TEACHER TAUGHT ART OR MUSIC	Data suppressed for respondent confidentiality
A1YRSCH	A1 C8 YRS TEACHER TAUGHT AT THIS SCHOOL	Data recoded for respondent confidentiality
A1YRSTCH	A1 C9 NUMBER YEARS BEEN SCHOOL TEACHER	Data recoded for respondent confidentiality
A1NATEXM	A1 C10 TAKEN EXAM FOR NATIONAL BOARD	Data recoded for respondent confidentiality
A1DEGERL	A1 C12A UNDERGRAD/EARLY CHILDHOOD ED	Data suppressed for respondent confidentiality
A1DEGELM	A1 C12B UNDERGRAD/ELEMENTARY ED	Data suppressed for respondent confidentiality
A1DEGSPE	A1 C12C UNDERGRAD/SPECIAL ED	Data suppressed for respondent confidentiality
A1DEGOTH	A1 C12D UNDERGRAD/OTHER ED MAJOR	Data suppressed for respondent confidentiality
A1DEGNON	A1 C12E UNDERGRAD/NON ED MAJOR	Data suppressed for respondent confidentiality
A1GRDERL	A1 C13A GRAD DEG/EARLY CHILDHOOD ED	Data suppressed for respondent confidentiality
A1GRDELM	A1 C13B GRAD DEG/ELEMENTARY ED	Data suppressed for respondent confidentiality
A1GRDSPE	A1 C13C GRAD DEG/SPECIAL ED	Data suppressed for respondent confidentiality
A1GRDOTH	A1 C13D GRAD DEG/OTHER ED MAJOR	Data suppressed for respondent confidentiality
A1GRDNON	A1 C13E GRAD DEG/NON ED MAJOR	Data suppressed for respondent confidentiality
A1ELEMCT	A1 C17A CERTIFICATION: ELEMENTARY ED	Data suppressed for respondent confidentiality
<b>A1ERLYCT</b>	A1 C17B CERTIFICATION: EARLY CHILD ED	Data suppressed for respondent confidentiality
A1SPECCT	A1 C17C CERTIFICATION: SPECIAL EDUCATION	Data suppressed for respondent confidentiality
A1ESLCT	A1 C17D CERTIFICATION: ENG AS SECOND LNG	Data suppressed for respondent confidentiality
A1OTHRCT	A1 C17E CERTIFICATION: OTHER	Data suppressed for respondent confidentiality

Exhibit 5. ECLS-K:2011 masked variables, fall kindergarten teacher-level teacher questionnaire— Continued

Variable name	Variable description	Comments
A2AENROL	A2 A2A # CURRENTLY IN CLASS-AM	Data recoded for respondent confidentiality
A2PENROL	A2 A2A # CURRENTLY IN CLASS-PM	Data recoded for respondent confidentiality
A2DENROL	A2 A2A # CURRENTLY IN CLASS-AD	Data recoded for respondent confidentiality
A2AJOINE	A2 A2B # JOINED CLASS-AM	Data recoded for respondent confidentiality
A2PJOINE	A2 A2B # JOINED CLASS-PM	Data recoded for respondent confidentiality
A2DJOINE	A2 A2B # JOINED CLASS-AD	Data recoded for respondent confidentiality
A2ALEFTL	A2 A2C # LEFT CLASS-AM	Data recoded for respondent confidentiality
A2PLEFTL	A2 A2C # LEFT CLASS-PM	Data recoded for respondent confidentiality
A2DLEFTL	A2 A2C # LEFT CLASS-AD	Data recoded for respondent confidentiality
A2AGIFT	A2 A3A # CLASSIFIED AS GIFTD/TALENTED-AM	Data recoded for respondent confidentiality
A2PGIFT	A2 A3A # CLASSIFIED AS GIFTD/TALENTED-PM	Data recoded for respondent confidentiality
A2DGIFT	A2 A3A # CLASSIFIED AS GIFTD/TALENTED-AD	Data recoded for respondent confidentiality
A2APRTGF	A2 A3B # TAKE PART IN GIFTED/TALENTED-AM	Data recoded for respondent confidentiality
A2PPRTGF	A2 A3B # TAKE PART IN GIFTED/TALENTED-PM	Data recoded for respondent confidentiality
A2DPRTGF	A2 A3B # TAKE PART IN GIFTED/TALENTED-AD	Data recoded for respondent confidentiality
A2ATARDY	A2 A3E # TARDY ON AVERAGE DAY-AM	Data recoded for respondent confidentiality
A2PTARDY	A2 A3E # TARDY ON AVERAGE DAY-PM	Data recoded for respondent confidentiality
A2DTARDY	A2 A3E # TARDY ON AVERAGE DAY-AD	Data recoded for respondent confidentiality
A2AABSEN	A2 A3F # ABSENT ON AVERAGE DAY-AM	Data recoded for respondent confidentiality
A2PABSEN	A2 A3F # ABSENT ON AVERAGE DAY-PM	Data recoded for respondent confidentiality
A2DABSEN	A2 A3F # ABSENT ON AVERAGE DAY-AD	Data recoded for respondent confidentiality
A2ASPECN	A2 A5 # WITH DISABILITY/SPECIAL NEEDS-AM	Data recoded for respondent confidentiality
A2PSPECN	A2 A5 # WITH DISABILITY/SPECIAL NEEDS-PM	Data recoded for respondent confidentiality
A2DSPECN	A2 A5 # WITH DISABILITY/SPECIAL NEEDS-AD	Data recoded for respondent confidentiality
A2AIMPAI	A2 A6A SPEECH/LANG IMPAIRMENTS-AM	Data suppressed for respondent confidentialit
A2PIMPAI	A2 A6A SPEECH/LANG IMPAIRMENTS-PM	Data suppressed for respondent confidentialit
A2DIMPAI	A2 A6A SPEECH/LANG IMPAIRMENTS-AD	Data suppressed for respondent confidentialit
A2ALRNDI	A2 A6B LEARNING DISABILITIES-AM	Data suppressed for respondent confidentialit
A2PLRNDI	A2 A6B LEARNING DISABILITIES-PM	Data suppressed for respondent confidentialit
A2DLRNDI	A2 A6B LEARNING DISABILITIES-AD	Data suppressed for respondent confidentialit
A2AEMODST	A2 A6C EMOTIONAL DISTURBANCE-AM	Data suppressed for respondent confidentialit
A2PEMODST	A2 A6C EMOTIONAL DISTURBANCE-PM	Data suppressed for respondent confidentiality
A2DEMODST	A2 A6C EMOTIONAL DISTURBANCE-AD	Data suppressed for respondent confidentiality
A2AINTDS	A2 A6D INTELLECTUAL DISABILITY-AM	Data suppressed for respondent confidentiality
A2PINTDS	A2 A6D INTELLECTUAL DISABILITY-PM	Data suppressed for respondent confidentiality
A2DINTDS	A2 A6D INTELLECTUAL DISABILITY-AD	Data suppressed for respondent confidentiality
A2ADELAY	A2 A6E DEVELOPMENTAL DELAY-AM	Data suppressed for respondent confidentialit
A2PDELAY	A2 A6E DEVELOPMENTAL DELAY-PM	Data suppressed for respondent confidentialit

Exhibit 6. ECLS-K:2011 masked variables, spring kindergarten teacher-level teacher questionnaire

Variable name	Variable description	Comments
A2DDELAY	A2 A6E DEVELOPMENTAL DELAY-AD	Data suppressed for respondent confidentiality
A2AVIS	A2 A6F VISION IMPAIRMENTS-AM	Data suppressed for respondent confidentiality
A2PVIS	A2 A6F VISION IMPAIRMENTS-PM	Data suppressed for respondent confidentiality
A2DVIS	A2 A6F VISION IMPAIRMENTS-AD	Data suppressed for respondent confidentiality
A2AHEAR	A2 A6G HEARING IMPAIRMENTS-AM	Data suppressed for respondent confidentiality
A2PHEAR	A2 A6G HEARING IMPAIRMENTS-PM	Data suppressed for respondent confidentialit
A2DHEAR	A2 A6G HEARING IMPAIRMENTS-AD	Data suppressed for respondent confidentialit
A2AORTHO	A2 A6H ORTHOPEDIC IMPAIRMENTS-AM	Data suppressed for respondent confidentialit
A2PORTHO	A2 A6H ORTHOPEDIC IMPAIRMENTS-PM	Data suppressed for respondent confidentialit
A2DORTHO	A2 A6H ORTHOPEDIC IMPAIRMENTS-AD	Data suppressed for respondent confidentialit
A2AOTHER	A2 A6I OTHER HEALTH IMPAIRMENTS-AM	Data suppressed for respondent confidentialit
A2POTHER	A2 A6I OTHER HEALTH IMPAIRMENTS-PM	Data suppressed for respondent confidentialit
A2DOTHER	A2 A6I OTHER HEALTH IMPAIRMENTS-AD	Data suppressed for respondent confidentialit
A2AAUTSM	A2 A6J AUTISM-AM	Data suppressed for respondent confidentialit
A2PAUTSM	A2 A6J AUTISM-PM	Data suppressed for respondent confidentialit
A2DAUTSM	A2 A6J AUTISM-AD	Data suppressed for respondent confidentialit
A2ATRAUM	A2 A6K TRAUMATIC BRAIN INJURY-AM	Data suppressed for respondent confidentialit
A2PTRAUM	A2 A6K TRAUMATIC BRAIN INJURY-PM	Data suppressed for respondent confidentialit
A2DTRAUM	A2 A6K TRAUMATIC BRAIN INJURY-AD	Data suppressed for respondent confidentialit
A2ADFBLD	A2 A6L DEAF-BLINDNESS-AM	Data suppressed for respondent confidentialit
A2PDFBLD	A2 A6L DEAF-BLINDNESS-PM	Data suppressed for respondent confidentialit
A2DDFBLD	A2 A6L DEAF-BLINDNESS-AD	Data suppressed for respondent confidentialit
A2AMULTI	A2 A6M MULTIPLE DISABILITIES-AM	Data suppressed for respondent confidentialit
A2PMULTI	A2 A6M MULTIPLE DISABILITIES-PM	Data suppressed for respondent confidentialit
A2DMULTI	A2 A6M MULTIPLE DISABILITIES-AD	Data suppressed for respondent confidentialit
A2AOTDIS	A2 A6N OTHER DISABILITIES-AM	Data suppressed for respondent confidentialit
A2POTDIS	A2 A6N OTHER DISABILITIES-PM	Data suppressed for respondent confidentialit
A2DOTDIS	A2 A6N OTHER DISABILITIES-AD	Data suppressed for respondent confidentialit
A2ASPCIA	A2 A7A SPECIAL DISABILITY SERVICES-AM	Data recoded for respondent confidentiality
A2PSPCIA	A2 A7A SPECIAL DISABILITY SERVICES-PM	Data recoded for respondent confidentiality
A2DSPCIA	A2 A7A SPECIAL DISABILITY SERVICES-AD	Data recoded for respondent confidentiality
A2AMORE	A2 A7B NEED MORE HELP-AM	Data recoded for respondent confidentiality
A2PMORE	A2 A7B NEED MORE HELP-PM	Data recoded for respondent confidentiality
A2DMORE	A2 A7B NEED MORE HELP-AD	Data recoded for respondent confidentiality
A2DYRECS	A2 B7 DAYS PER WEEK HAVE RECESS	Data recoded for respondent confidentiality

Exhibit 6. ECLS-K:2011 masked variables, spring kindergarten teacher-level teacher questionnaire—Continued

Variable name	Variable description	Comments
B2TGEND	B2 Q1 TEACHER'S GENDER	Data suppressed for respondent confidentialit
B2YRBORN	B2 Q2 TEACHER'S YEAR OF BIRTH	Data recoded for respondent confidentiality
B2HISP	B2 Q3 HISPANIC/LATINO (ANY RACE)	Data suppressed for respondent confidentialit
<b>B2AMINAN</b>	B2 Q4 AMER IND/ALASKA NAT	Data suppressed for respondent confidentialit
B2ASIAN	B2 Q4 ASIAN	Data suppressed for respondent confidentialit
B2BLACK	B2 Q4 BLACK	Data suppressed for respondent confidentialit
B2HAWPI	B2 Q4 NATIVE HAWAIIAN/PAC ISL	Data suppressed for respondent confidentialit
B2WHITE	B2 Q4 WHITE	Data suppressed for respondent confidentialit
B2HGHSTD	B2 Q5 HIGHEST ED LEVEL TEACHER ACHIEVED	Data recoded for respondent confidentiality
B2YRSPRE	B2 Q7A YRS TEACHER TAUGHT PRESCH/HEAD ST	Data suppressed for respondent confidentialit
B2YRSKIN	B2 C7B YRS TEACHER TAUGHT KINDERGARTEN	Data suppressed for respondent confidentialit
B2YRSFST	B2 Q7C YRS TEACHER TAUGHT FIRST GRADE	Data suppressed for respondent confidentialit
B2YRS2T5	B2 Q7D YRS TEACHER TAUGHT GRADE 2 TO 5	Data suppressed for respondent confidentialit
B2YRS6PL	B2 Q7E YRS TEACHER TAUGHT GRADE 6 OR UP	Data suppressed for respondent confidentialit
B2YRSESL	B2 Q7F YRS TEACHER TAUGHT ESL	Data suppressed for respondent confidentiality
B2YRSBIL	B2 Q7G YRS TEACHER TAUGHT BILINGUAL ED	Data suppressed for respondent confidentiality
B2YRSDUL	B2 Q7H YRS TEACHER TAUGHT DUAL LANG	Data suppressed for respondent confidentiality
B2YRSSPE	B2 Q7I YRS TEACHER TAUGHT SPECIAL ED	Data suppressed for respondent confidentiality
B2YRSPE	B2 Q7J YRS TEACHER TAUGHT PHYSICAL ED	Data suppressed for respondent confidentiality
B2YRSART	B2 Q7K YRS TEACHER TAUGHT ART OR MUSIC	Data suppressed for respondent confidentiality
B2YRSCH	B2 C8 YRS TEACHER TAUGHT AT THIS SCHOOL	Data recoded for respondent confidentiality
B2YRSTC	B2 C9 NUMBER YEARS BEEN SCHOOL TEACHER	Data recoded for respondent confidentiality
B2NATEXM	B2 Q10 TAKEN EXAM FOR NATIONAL BOARD	Data recoded for respondent confidentiality
B2DEGERL	B2 C12A UNDERGRAD/EARLY CHILDHOOD ED	Data suppressed for respondent confidentiality
B2DEGELM	B2 C12B UNDERGRAD/ELEMENTARY ED	Data suppressed for respondent confidentiality
B2DEGSPE	B2 C12C UNDERGRAD/SPECIAL ED	Data suppressed for respondent confidentiality
B2DEGOTH	B2 C12D UNDERGRAD/OTHER ED MAJOR	Data suppressed for respondent confidentialit
B2DEGNON	B2 C12E UNDERGRAD/NON ED MAJOR	Data suppressed for respondent confidentialit
B2GRDERL	B2 C13A GRAD DEG/EARLY CHILDHOOD ED	Data suppressed for respondent confidentialit
B2GRDELM	B2 C13B GRAD DEG/ELEMENTARY ED	Data suppressed for respondent confidentiality
B2GRDSPE	B2 C13C GRAD DEG/SPECIAL ED	Data suppressed for respondent confidentiality
B2GRDOTH	B2 C13D GRAD DEG/OTHER ED MAJOR	Data suppressed for respondent confidentiality
B2GRDNON	B2 C13E GRAD DEG/NON ED MAJOR	Data suppressed for respondent confidentiality
B2ELEMCT	B2 C17A CERTIFICATION: ELEMENTARY ED	Data suppressed for respondent confidentiality
B2ERLYCT	B2 C17B CERTIFICATION: EARLY CHILD ED	Data suppressed for respondent confidentiality
B2SPECCT	B2 C17C CERTIFICATION: SPECIAL EDUCATION	Data suppressed for respondent confidentialit
B2ESLCT	B2 C17D CERTIFICATION: ENG AS SECOND LNG	Data suppressed for respondent confidentiality
B2OTHCRT	B2 C17E CERTIFICATION: OTHER	Data suppressed for respondent confidentialit

Exhibit 7. ECLS-K:2011 masked variables, spring kindergarten supplemental teacher questionnaire

Variable name	Variable description	Comments
T2GRADE	T2 S1 GRADE CHILD ENROLLED	Data recoded for respondent confidentiality
T2LNGTM	T2 S2 LENGTH OF TIME IN CLASSROOM	Data recoded for respondent confidentiality
T2BH2WK	T2 S4 FELL BEHIND 2 OR MORE WEEKS	Data recoded for respondent confidentiality
T2ELLPRB	T2 S5 FELL BEHIND - LANGUAGE BARRIER	Data suppressed for respondent confidentiality
T2GFTRD	T2 S6E GIFTED PROGRAM IN READ/LANG ARTS	Data suppressed for respondent confidentiality
T2GFTMTH	T2 S6F GIFTED PROGRAM IN MATHEMATICS	Data suppressed for respondent confidentiality
T2WKEND	T2 S7C INSTR SERVICES WEEKENDS	Data suppressed for respondent confidentiality
T2NSTNL	T2 S10 LANGUAGE INSTRUCTION	Data recoded for respondent confidentiality
T2ACCOM	T2 S15 SPECIAL TEST ACCOMMODATIONS	Data recoded for respondent confidentiality

Exhibit 8. ECLS-K:2011 masked variables, spring kindergarten child-level teacher questionnaire

Variable name	Variable description	Comments
R2SRVMLS	R2 Q3 PROG SERVES MEALS OR SNACKS	Data suppressed for respondent confidentiality
R2DOBYY	R2 Q16B CAREGIVER DOB - YEAR	Data recoded for respondent confidentiality
R2AMINAN	R2 Q18A AMER IND/ALASKA NAT	Data suppressed for respondent confidentiality
R2ASIAN	R2 Q18B ASIAN	Data suppressed for respondent confidentiality
R2HAWPI	R2 Q18D NATIVE HAWAIIAN/PAC ISL	Data suppressed for respondent confidentiality
R2CGEDUC	R2 Q19 CAREGIVER HIGHEST EDUCATION LEVEL	Data recoded for respondent confidentiality
R2WCHCRD	R2 Q21 WHICH CREDENTIAL	Data suppressed for respondent confidentiality
R2CDACRD	R2 Q22 WORKING TOWARDS CDA CREDENTIAL	Data suppressed for respondent confidentiality
R2PRMLNG	R2 Q27 CAREGIVER PRIMARY LANGUAGE	Data recoded for respondent confidentiality
R2PRGNM3	R2 Q33 NUM CHILDREN LICENSED 0-3 YR	Data recoded for respondent confidentiality
R2PRGNM4	R2 Q34 NUM CHILDREN LICENSED 4 YRS	Data recoded for respondent confidentiality
R2PRGNM5	R2 Q35 NUM CHILDREN LICENSED 5 YRS	Data recoded for respondent confidentiality
V2GENDER	V2 Q1 CAREGIVER GENDER	Data suppressed for respondent confidentiality
V2DOBYY	V2 Q2B CAREGIVER DOB - YEAR	Data recoded for respondent confidentiality
V2AMINAN	V2 Q4A AMER IND/ALASKA NAT	Data suppressed for respondent confidentiality
V2ASIAN	V2 Q4B ASIAN	Data suppressed for respondent confidentiality
V2HAWPI	V2 Q4D NATIVE HAWAIIAN/PAC ISL	Data suppressed for respondent confidentiality
V2CGEDUC	V2 Q5 CAREGIVER HIGHEST EDUCATION LEVEL	Data recoded for respondent confidentiality
V2PRMLNG	V2 Q13 CAREGIVER PRIMARY LANGUAGE	Data suppressed for respondent confidentiality
V2CARYRS	V2 Q14A TIME CARING FOR CHILDREN - YEARS	Data recoded for respondent confidentiality
V2NUMCHD	V2 Q15 NUMBER OF CHILDREN CARED FOR	Data recoded for respondent confidentiality
V2GRPGEN	V2 Q16 CHILDREN GROUPED BY GENDER	Data suppressed for respondent confidentiality
V2GRPPNT	V2 Q16 CHILDREN GROUPED BY PARENTS	Data suppressed for respondent confidentiality
Y2DIRYRS	Y2 Q1A HOW LONG BEEN PRG DIRECTOR - YRS	Data recoded for respondent confidentiality
Y2LOCATE	Y2 Q2 PROGRAM LOCATION	Data recoded for respondent confidentiality
Y2HDSTRT	Y2 Q6A PROG HEAD START	Data suppressed for respondent confidentiality
Y2COLLEG	Y2 Q6G PROG COLLEGE OR UNIVERSITY	Data suppressed for respondent confidentiality
Y2PRGNM3	Y2 Q9 NUM CHILDREN LICENSED 0-3 YRS	Data recoded for respondent confidentiality
Y2PRGNM4	Y2 Q10 NUM CHILDREN LICENSED 4 YRS	Data recoded for respondent confidentiality
Y2PRGNM5	Y2 Q11 NUM CHILDREN LICENSED 5 YRS	Data recoded for respondent confidentiality
Y2T1NUM	Y2 Q14A2 NUM CHILDREN TITLE 1 FUNDS	Data suppressed for respondent confidentiality
Y2TXXNUM	Y2 Q14B2 NUM CHILDREN TITLE XX FUNDS	Data suppressed for respondent confidentiality
Y2NCLNUM	Y2 Q14D2 NUM CHILDREN NCLB FUNDS	Data suppressed for respondent confidentiality
Y2OTHNUM	Y2 Q14E2 NUM CHILDREN OTHER GRANT FUNDS	Data suppressed for respondent confidentiality
Y2PRGEMP	Y2 Q16 NUM TCHRS/CRGVRS PROG EMPLOYS	Data recoded for respondent confidentiality
Y2HIRE12	Y2 Q17 NUM TCHRS/CRGVRS HIRED LST 12 MTH	Data recoded for respondent confidentiality
Y2LEFT12	Y2 Q18 NUM TCHRS/CRGVRS LEFT LST 12 MTH	Data recoded for respondent confidentiality
Y2PHYSIC	Y2 Q19D PROG PROVIDES PHYSICAL SCREENING	Data suppressed for respondent confidentiality

## Exhibit 9. ECLS-K:2011 masked variables, spring kindergarten before- and after-school care questionnaires

Variable name	Variable description	Comments
Y2COLHDS	Y2 Q23 PROG COLLABORATES WITH HEAD START	Data suppressed for respondent confidentiality
Y2HDSCHG	Y2 Q24 HEAD START REQUIRED PROG CHANGES	Data suppressed for respondent confidentiality
Y2BEFSTR	Y2 Q26 TIME BEFORE SCHOOL CARE STARTS	Data suppressed for respondent confidentiality
Y2BEFEND	Y2 Q27A TIME BEFORE SCHOOL CARE ENDS	Data suppressed for respondent confidentiality
Y2BFENDU	Y2 Q27B TIME BEFORE SCH CARE ENDS-AM/PM	Data suppressed for respondent confidentiality
Y2AFTSTR	Y2 Q28A TIME AFTER SCHOOL CARE STARTS	Data suppressed for respondent confidentiality
Y2AFSTRU	Y2 Q28B TIME AFTER SCH CARE START-AM/PM	Data suppressed for respondent confidentiality
Y2AFTEND	Y2 Q29A TIME AFTER SCHOOL CARE ENDS	Data suppressed for respondent confidentiality
Y2AFENDU	Y2 Q29B TIME AFTER SCH CARE ENDS-AM/PM	Data suppressed for respondent confidentiality
Y2AFTER8	Y2 Q34A PROG OFFERS CARE AFTER 8 PM	Data suppressed for respondent confidentiality
Y2OVERNT	Y2 Q34B PROG OFFERS OVERNIGHT CARE	Data suppressed for respondent confidentiality
Y2WEEKND	Y2 Q34C PROG OFFERS WEEKEND CARE	Data suppressed for respondent confidentiality
Y2ACDSUP	Y2 Q40I CONTINUING EDUCATIONAL SUPPORT	Data recoded for respondent confidentiality
Z2CARYRS	Z2 Q1A YEARS CARED FOR CHILD	Data recoded for respondent confidentiality
Z2DAYSWK	Z2 Q2 DAYS PER WEEK CARE FOR CHILD	Data recoded for respondent confidentiality
Z2HRSWK	Z2 Q3 HOURS PER WEEK CARE FOR CHILD	Data recoded for respondent confidentiality
Z2TYPREL	Z2 Q6 RELATIONSHIP TO CHILD	Data suppressed for respondent confidentiality
Z2LNGTCH	Z2 Q9 LANG USED MOST IN CARING FOR CHILD	Data suppressed for respondent confidentiality
Z2NUMCHD	Z2 Q11 NUMBER OF CHILDREN CARED FOR	Data recoded for respondent confidentiality
Z2NUMREL	Z2 Q12 NUMBER OF CHILDREN RELATED	Data recoded for respondent confidentiality
Z2NONENG	Z2 Q14 NUMBER OF CHILDREN SPK NONENGLISH	Data recoded for respondent confidentiality
Z2SPCNDS	Z2 Q15 NUMBER OF CHILDREN SPECIAL NEEDS	Data recoded for respondent confidentiality
Z2BEFSTR	Z2 Q26 TIME BEFORE SCHOOL CARE STARTS	Data suppressed for respondent confidentiality
Z2BEFEND	Z2 Q27A TIME BEFORE SCHOOL CARE ENDS	Data suppressed for respondent confidentiality
Z2BFENDU	Z2 Q27B TIME BEFORE SCH CARE ENDS-AM/PM	Data suppressed for respondent confidentiality
Z2AFTSTR	Z2 Q28A TIME AFTER SCHOOL CARE STARTS	Data suppressed for respondent confidentiality
Z2AFSTRU	Z2 Q28B TIME AFTER SCH CARE START-AM/PM	Data suppressed for respondent confidentiality
Z2AFTEND	Z2 Q29A TIME AFTER SCHOOL CARE ENDS	Data suppressed for respondent confidentiality
Z2AFENDU	Z2 Q29B TIME AFTER SCH CARE ENDS-AM/PM	Data suppressed for respondent confidentiality

Exhibit 9. ECLS-K:2011 masked variables, spring kindergarten before-and after-school care questionnaires—Continued

Variable name	Variable description	Comments
S2NUMDAY	S2 A1 NUMBER OF DAYS MUST ATTEND	Data recoded for respondent confidentiality
S2SYRSMM	S2 A2 SCH START MONTH	Data recoded for respondent confidentiality
S2SYRSDD	S2 A2B SCH START DAY	Data suppressed for respondent confidentiality
S2SYREMM	S2 A2 SCH END MONTH	Data recoded for respondent confidentiality
S2SYREDD	S2 A2E SCH END DAY	Data suppressed for respondent confidentiality
S2ANUMCH	S2 A3A # ENROLLED AROUND OCTOBER 1 2010	Data recoded for respondent confidentiality
S2BNUMCH	S2 A3B # ENROLLED SINCE OCTOBER 1 2010	Data recoded for respondent confidentiality
S2CNUMCH	S2 A3C # LEFT SINCE OCTOBER 1 2010	Data recoded for respondent confidentiality
S2ADA	S2 A4 % AVERAGE DAILY ATTENDANCE FOR YR	Data recoded for respondent confidentiality
S2ADANUM	S2 A4 AVERAGE NUMBER ATTENDING DAILY	Data suppressed for respondent confidentiality
S2UNGRAD	S2 A5 GRADE LEVEL-UNGRADED	Data suppressed for respondent confidentiality
S2KINDER	S2 A5 GRADE LEVEL-KINDERGARTEN	Data suppressed for respondent confidentiality
S2PRE1	S2 A5 GRADE LEVEL-PREFIRST/TRANS 1ST	Data suppressed for respondent confidentiality
S2GRADE1	S2 A5 GRADE LEVEL-FIRST GRADE	Data suppressed for respondent confidentiality
S2NINTH	S2 A5 GRADE LEVEL-NINTH GRADE	Data suppressed for respondent confidentiality
S2TENTH	S2 A5 GRADE LEVEL-TENTH GRADE	Data suppressed for respondent confidentiality
S211TH	S2 A5 GRADE LEVEL-ELEVENTH GRADE	Data suppressed for respondent confidentiality
S212TH	S2 A5 GRADE LEVEL-TWELFTH GRADE	Data suppressed for respondent confidentiality
S2MAGSKL	S2 A6 PUBLIC MAGNET SCHOOL	Data suppressed for respondent confidentiality
S2CHRSKL	S2 A6 CHARTER SCHOOL	Data suppressed for respondent confidentiality
S2DIOCSK	S2 A6 CATHOLIC SCHOOL - DIOCESAN	Data suppressed for respondent confidentiality
S2PARSKL	S2 A6 CATHOLIC SCHOOL - PARISH	Data suppressed for respondent confidentiality
S2PRVORS	S2 A6 CATHOLIC SCHOOL - PRIVATE ORDER	Data suppressed for respondent confidentiality
S2OTNAIS	S2 A6 PRIVATE SCHOOL NAIS - NOT RELG	Data suppressed for respondent confidentiality
S2OTHRNO	S2 A6 PRIVATE SCHOOL - NOT RELG OR NAIS	Data suppressed for respondent confidentiality
S2SPDSCH	S2 A6 SPECIAL ED SCHOOL	Data suppressed for respondent confidentiality
S2YROUND	S2 A6 YEAR-ROUND SCHOOL	Data suppressed for respondent confidentiality
S2HISPNM	S2 A7A # HISPANIC/LATINO	Data suppressed for respondent confidentiality
S2AIANPT	S2 A7B % AMER IND/ALASKA NAT	Data recoded for respondent confidentiality
S2AIANNM	S2 A7B # AMER IND/ALASKA NAT	Data suppressed for respondent confidentiality
S2ASIAPT	S2 A7C % ASIAN	Data recoded for respondent confidentiality
S2ASIANM	S2 A7C # ASIAN	Data suppressed for respondent confidentiality
S2BLACNM	S2 A7D # BLACK/AFRICAN AMERICAN	Data suppressed for respondent confidentiality
S2HAWPPT	S2 A7E % HAWAIIAN/PAC ISL	Data recoded for respondent confidentiality
S2HAWPNM	S2 A7E # HAWAIIAN/PAC ISL	Data suppressed for respondent confidentiality
S2WHITNM	S2 A7F # WHITE	Data suppressed for respondent confidentiality
S2MULTPT	S2 A7G % TWO OR MORE RACE	Data recoded for respondent confidentiality

Exhibit 10. ECLS-K:2011 masked variables, spring kindergarten school administrator questionnaire

Variable name	Variable description	Comments
S2MULTNM	S2 A7G # TWO OR MORE RACE	Data suppressed for respondent confidentiality
S2TOTENR	S2 A7H RPTD TOTAL SCHOOL ENROLLMENT	Data recoded for respondent confidentiality
S2BUSSED	S2 A8B PERCENT BUSSED TO INTEGRATE	Data recoded for respondent confidentiality
S2OUTSID	S2 A8C PERCENT SENT W/SPECIAL NEED	Data recoded for respondent confidentiality
S2PUBSOC	S2 A8E PCT ATTEND UNDER PUB SCH CHOICE	Data recoded for respondent confidentiality
S2KINTOT	S2 A9 TOT ENROLLED IN KINDERGARTEN	Data recoded for respondent confidentiality
S2HLFKIN	S2 A10A NUMBER OF HALFDAY K CLASSES	Data recoded for respondent confidentiality
S2FLLKIN	S2 A10B NUMBER OF FULLDAY K CLASSES	Data recoded for respondent confidentiality
S2NOCUTO	S2 A11 NO CUTOFF DATE TO TURN FIVE	Data suppressed for respondent confidentiality
S2MMFIVE	S2 A11 CUTOFF MONTH TO TURN FIVE	Data suppressed for respondent confidentiality
S2DDFIVE	S2 A11 CUTOFF DAY TO TURN FIVE	Data suppressed for respondent confidentiality
S2YYFIVE	S2 A11 CUTOFF YEAR TO TURN FIVE	Data suppressed for respondent confidentiality
S2AMBUSFHH	S2 A12 TIME FIRST BUS AM - HOURS	Data recoded for respondent confidentiality
S2AMBUSLHH	S2 A13 TIME LAST BUS AM - HOURS	Data recoded for respondent confidentiality
S2STRTAMHH	S2 A14 OFFICIAL SCHOOL START TIME AM - HR	Data recoded for respondent confidentiality
S2BRKSTRHH	S2 A17 TIME BREAKFAST START - HR	Data recoded for respondent confidentiality
S2BRKENDHH	S2 A17 TIME BREAKFAST END - HR	Data recoded for respondent confidentiality
S2BRKLOC	S2 A18 WHERE BREAKFAST SERVED	Data recoded for respondent confidentiality
S2PDBRK	S4 A20A # PAID BREAKFASTS SERVED - OCT	Data recoded for respondent confidentiality
S2FREEBK	S4 A20B # FREE BREAKFASTS SERVED - OCT	Data recoded for respondent confidentiality
S2RDCBRK	S2 A20C # RED PRICE BREAKFSTS SVD - OCT	Data recoded for respondent confidentiality
S2FLPRBK	S2 A21 PRICE OF FULL PRICED BREAKFAST	Data recoded for respondent confidentiality
S2RDPRBK	S2 A22 PRICE OF REDUCED PRICE BREAKFAST	Data recoded for respondent confidentiality
S2TOPDLU	S2 A24A # PAID LUNCHES SERVED - OCT	Data recoded for respondent confidentiality
S2TOFRLU	S2 A24B # FREE LUNCHES SERVED - OCT	Data recoded for respondent confidentiality
S2TORDLU	S2 A24C # RED PRICE LUNCHES SERVED - OCT	Data recoded for respondent confidentiality
S2FLPRLU	S2 A25 PRICE OF FULL PRICED LUNCH	Data recoded for respondent confidentiality
S2RDPRLU	S2 A26 PRICE OF REDUCED PRICE LUNCH	Data recoded for respondent confidentiality
S2NUMFRM	S2 A27A # CHILDREN APPROVED FREE LUNCH	Data recoded for respondent confidentiality
S2NUMRDM	S2 A27B # CHILDREN APPROVED RED LUNCH	Data recoded for respondent confidentiality
S2CHLDNM	S2 B2 # OF CHILDREN SITE ACCOMMODATES	Data recoded for respondent confidentiality
S2RPRTCD	S2 C3B FREQ OF REPORT CARDS	Data recoded for respondent confidentiality
S2DETECT	S2 C7B SCHOOL METAL DETECTORS	Data suppressed for respondent confidentiality
S2NMRETK	S2 D5 NUMBER RETAINED IN K LAST YEAR	Data recoded for respondent confidentiality
S2ESLREG	S2 E3A1 PCT 1 GR RECEIVE ESL IN REG CLAS	Data recoded for respondent confidentiality
S2ESLPLL	S2 E3A2 PCT K RECEIVE ESL IN PULLOUT	Data recoded for respondent confidentiality
S2BILINS	S2 E3B1 PCT K RECEIVE BILING IN REG CLS	Data recoded for respondent confidentiality

Exhibit 10. ECLS-K:2011 masked variables, spring kindergarten school administrator questionnaire— Continued

Variable name	Variable description	Comments
S2BILPLL	S2 E3B2 PCT K RECEIVE BILING IN PULLOUT	Data recoded for respondent confidentiality
S2DUALIN	S2 E3C1 PCT K RECEIVE DUAL-LANG IN REG	Data recoded for respondent confidentiality
S2DUALPL	S2 E3C2 PCT K RECV DUAL-LANG IN PULLOUT	Data recoded for respondent confidentiality
S2SPDPCT	S2 E6A1 % STUDENTS IN SPECIAL ED	Data recoded for respondent confidentiality
S2GIFPCT	S2 E6D1 % STUDENTS IN G/T PROGRAM	Data recoded for respondent confidentiality
S2METAYP	S2 F8 DID SCHOOL MAKE AYP 2009-2010	Data recoded for respondent confidentiality
S2RTCHFL	S2 G1A1 # REG CLASSROOM TCHR-FULL	Data recoded for respondent confidentiality
S2RTCHPT	S2 G1A2 # REG CLASSROOM TCHR-PART	Data recoded for respondent confidentiality
S2MSARFL	S2 G1B1 # GYM DRAMA MUSIC ART TCHR-FULL	Data recoded for respondent confidentiality
S2MSARPT	S2 G1B2 # GYM DRAMA MUSIC ART TCHR-PART	Data recoded for respondent confidentiality
S2SPEDFL	S2 G1C1 # SPECIAL ED TCHR-FULL	Data recoded for respondent confidentiality
S2SPEDPT	S2 G1C2 # SPECIAL ED TCHR-PART	Data recoded for respondent confidentiality
S2ESLFL	S2 G1D1 # ESL/BILINGUAL TCHR-FULL	Data recoded for respondent confidentiality
S2ESLPT	S2 G1D2 # ESL/BILINGUAL TCHR-PART	Data recoded for respondent confidentiality
S2READFL	S2 G1E1 # READING TCHR/SPECIALIST-FULL	Data recoded for respondent confidentiality
S2READPT	S2 G1E2 # READING TCHR/SPECIALIST-PART	Data recoded for respondent confidentiality
S2GIFTFL	S2 G1F1 # GIFTED/TALENTED TCHR-FULL	Data recoded for respondent confidentiality
S2GIFTPT	S2 G1F2 # GIFTED/TALENTED TCHR-PART	Data recoded for respondent confidentiality
S2NURSFL	S2 G1G1 # SCH NURSE HEALTH PROF-FULL	Data recoded for respondent confidentiality
S2NURSPT	S2 G1G2 # SCH NURSE HEALTH PROF-PART	Data recoded for respondent confidentiality
S2PSYCFL	S2 G1H1 # SCH PSYCH/SOCIAL WORKER-FULL	Data recoded for respondent confidentiality
S2PSYCPT	S2 G1H2 # SCH PSYCH/SOCIAL WORKER-PART	Data recoded for respondent confidentiality
S2PARAFL	S2 G111 # PARA PROFESSIONALS-FULL	Data recoded for respondent confidentiality
S2PARAPT	S2 G1I2 # PARA PROFESSIONALS-PART	Data recoded for respondent confidentiality
S2LIBRFL	S2 G1J1 # LIBRARIANS-FULL	Data recoded for respondent confidentiality
S2LIBRPT	S2 G1J2 # LIBRARIANS-PART	Data recoded for respondent confidentiality
S2TEBEGN	S2 G2A # NEW TEACHER SINCE OCT 1 2010	Data recoded for respondent confidentiality
S2TELEFT	S2 G2B # TEACHERS LEFT SINCE OCT 1 2010	Data recoded for respondent confidentiality
S2HISPN2	S2 G3A # HISPANIC/LAT TCHRS (ANY RACE)	Data suppressed for respondent confidentialit
S2HISPP2	S2 G3A % HISPANIC/LAT TCHRS (ANY RACE)	Data recoded for respondent confidentiality
S2AIANN2	S2 G3B # AMER IND/ALASKA NAT TEACHERS	Data suppressed for respondent confidentialit
S2AIANP2	S2 G3B % AMER IND/ALASKA NAT TEACHERS	Data recoded for respondent confidentiality
S2ASIAN2	S2 G3C # ASIAN TEACHERS	Data suppressed for respondent confidentialit
S2ASIAP2	S2 G3C % ASIAN TEACHERS	Data recoded for respondent confidentiality
S2BLACN2	S2 G3D # BLACK TEACHERS	Data suppressed for respondent confidentialit
S2BLACP2	S2 G3D % BLACK TEACHERS	Data recoded for respondent confidentiality
S2HAWPN2	S2 G3E # HAWAIIAN TEACHERS	Data suppressed for respondent confidentiality

ECLS-K:2011 masked variables, spring kindergarten school administrator questionnaire— Continued Exhibit 10.

Variable name	Variable description	Comments
S2HAWPP2	S2 G3E % HAWAIIAN TEACHERS	Data recoded for respondent confidentiality
S2WHITN2	S2 G3F # WHITE TEACHERS	Data suppressed for respondent confidentiality
S2MULTN2	S2 G3G # 2+ RACE TEACHERS	Data suppressed for respondent confidentiality
S2MULTP2	S2 G3G % 2+ RACE TEACHERS	Data recoded for respondent confidentiality
S2NUMTOT	S2 G3H TOTAL # OF TEACHERS	Data recoded for respondent confidentiality
S2RYYEMP	S2 G5E # OF YRS RESPONDENT AT SCHOOL	Data suppressed for respondent confidentiality
S2RMMEMP	S2 G5E # OF YRS RESPONDENT AT SCHOOL	Data suppressed for respondent confidentiality
S2GENDER	S2 H1 GENDER OF PRINCIPAL	Data suppressed for respondent confidentiality
S2BRTHYR	S2 H2 YEAR PRINCIPAL WAS BORN	Data recoded for respondent confidentiality
S2HISP	P1S2 H3 PRINCIPAL IS HISP/LAT (ANY RACE)	Data suppressed for respondent confidentiality
S2AMINAN	S2 H4A PRINCIPAL IS AMER IND/ALASKA NAT	Data suppressed for respondent confidentiality
S2ASIAN	S2 H4B PRINCIPAL IS ASIAN	Data suppressed for respondent confidentiality
S2BLACK	S2 H4C PRINCIPAL IS BLACK/AFRICAN AMER	Data suppressed for respondent confidentiality
S2HAWPI	S2 H4D PRINCIPAL IS NAT HAWAIIAN/PAC ISL	Data suppressed for respondent confidentiality
S2WHITE	S2 H4E PRINCIPAL IS WHITE	Data suppressed for respondent confidentiality
S2YSTCH	PS2 H5A NUMBER OF YRS TEACHING	Data recoded for respondent confidentiality
S2TOTPRI	S2 H5B NUMBER OF YRS AS PRINCIPAL	Data recoded for respondent confidentiality
S2PRINHR	S2 H5C NUMBER YRS A PRINCIPAL HERE	Data suppressed for respondent confidentiality
S2UNIVER	S2 H6A TRAIN AT TRADITNL UNIV/CERT PROG	Data suppressed for respondent confidentiality
S2DISTPR	S2 H6B DISTRICT-BASED TRAINING PROG	Data suppressed for respondent confidentiality
S2CITYPR	S2 H6C CITY-BASED TRAINING PROG	Data suppressed for respondent confidentiality
S2STPROG	S2 H6D STATE-BASED TRAINING PROG	Data suppressed for respondent confidentiality
S2NATNON	S2 H6E NATIONAL NON-PROFIT TRAINING	Data suppressed for respondent confidentiality
S2OTHSCH	S2 H6F ANOTHER SCHOOL ADMIN PROG	Data suppressed for respondent confidentiality
S2EDLVL	S2 H7 HIGHEST LEVEL OF EDUCATION	Data recoded for respondent confidentiality
S2BSERED	S2 H8A FIELD OF STUDY-EARLY CHILD ED	Data suppressed for respondent confidentiality
S2BSELEM	S2 H8B FIELD OF STUDY-ELEMENTARY ED	Data suppressed for respondent confidentiality
S2BSEDAD	S2 H8C FIELD OF STUDY-ED ADMIN/MANAGE	Data suppressed for respondent confidentiality
S2BSSPED	S2 H8D FIELD OF STUDY-SPECIAL ED	Data suppressed for respondent confidentiality
S2BSOTHR	S2 H8E FIELD OF STUDY-OTHER ED MAJOR	Data suppressed for respondent confidentiality
S2BSNOED	S2 H8F FIELD OF STUDY-NON-ED MAJOR	Data suppressed for respondent confidentiality

Exhibit 10. ECLS-K:2011 masked variables, spring kindergarten school administrator questionnaire— Continued

Variable name	Variable description	Comments
X1EXDIS	X1 CHILD NOT ASSESSED - DISAB EXCLUSION	Data suppressed for respondent confidentiality
X2EXDIS	X1 CHILD NOT ASSESSED - DISAB EXCLUSION	Data suppressed for respondent confidentiality
X1HEIGHT	X1 CHILD COMPOSITE HGT (INCHES)	Data recoded for respondent confidentiality
X1WEIGHT	X1 CHILD COMPOSITE WGT (POUNDS)	Data recoded for respondent confidentiality
X2HEIGHT	X2 CHILD COMPOSITE HGT (INCHES)	Data recoded for respondent confidentiality
X2WEIGHT	X2 CHILD COMPOSITE WGT (POUNDS)	Data recoded for respondent confidentiality
X12YRRND	X2 YEAR ROUND SCHOOL	Data suppressed for respondent confidentiality
X2LOWGRD	X2 LOWEST GRADE AT THE SCHOOL	Data recoded for respondent confidentiality
X2HIGGRD	X2 HIGHEST GRADE AT THE SCHOOL	Data recoded for respondent confidentiality
X2KENRLK	X2 TOTAL SCHOOL K ENROLLMENT	Data recoded for respondent confidentiality
X2SCHBDD	X2 SCHOOL YEAR BEGINNING DATE DAY	Data suppressed for respondent confidentiality
X2SCHBMM	X2 SCHOOL YEAR BEGINNING DATE MONTH	Data recoded for respondent confidentiality
X2SCHEDD	X2 SCHOOL YEAR ENDING DATE DAY	Data suppressed for respondent confidentiality
X2SCHEMM	X2 SCHOOL YEAR ENDING DATE MONTH	Data recoded for respondent confidentiality
X12PAR1ED_I	X12 PARENT 1 EDUCATION LEVEL (IMPUTED)	Data recoded for respondent confidentiality
X12PAR2ED_I	X12 PARENT 2 EDUCATION LEVEL (IMPUTED)	Data recoded for respondent confidentiality
X1LOCALE	X1 LOCATION TYPE OF SCHOOL	Data recoded for respondent confidentiality
X2LOCALE	X2 LOCATION TYPE OF SCHOOL	Data recoded for respondent confidentiality

Exhibit 11. ECLS-K:2011 masked variables, kindergarten composite variables

Variable name	Variable description	Comments
<b>F1CADISP</b>	F1 CHILD ASSESSMENT DISPOSITION CODE	Data suppressed for respondent confidentiality
F1PIDISP	F1 PARENT INTERVIEW DISPOSITION CODE	Data suppressed for respondent confidentiality
F1CCDLEA	F1 CCD LEA/SCHOOL DIST ID (PUBLIC)	Data suppressed for respondent confidentiality
F1CCDSID	F1 CCD SCHOOL ID (PUBLIC)	Data suppressed for respondent confidentiality
F1FIPSCT	F1 SCHOOL FIPS COUNTY CODE	Data suppressed for respondent confidentiality
F1FIPSST	F1 SCHOOL FIPS STATE CODE	Data suppressed for respondent confidentiality
F1SCHPIN	F1 SCHOOL PIN (PRIVATE/PSS)	Data suppressed for respondent confidentiality
F1SCHZIP	F1 SCHOOL ZIP CODE	Data suppressed for respondent confidentiality
F1CENTRC	F1 SCHOOL CENSUS TRACT CODE	Data suppressed for respondent confidentiality
F2CADISP	F2 CHILD ASSESSMENT DISPOSITION CODE	Data suppressed for respondent confidentiality
F2PIDISP	F2 PARENT INTERVIEW DISPOSITION CODE	Data suppressed for respondent confidentiality
F2CCDLEA	F2 CCD LEA/SCHOOL DIST ID (PUBLIC)	Data suppressed for respondent confidentiality
F2CCDSID	F2 CCD SCHOOL ID (PUBLIC)	Data suppressed for respondent confidentiality
F2FIPSCT	F2 SCHOOL FIPS COUNTY CODE	Data suppressed for respondent confidentiality
F2FIPSST	F2 SCHOOL FIPS STATE CODE	Data suppressed for respondent confidentiality
F2SCHPIN	F2 SCHOOL PIN (PRIVATE/PSS)	Data suppressed for respondent confidentiality
F2SCHZIP	F2 SCHOOL ZIP CODE	Data suppressed for respondent confidentiality
F2CENTRC	F2 SCHOOL CENSUS TRACT CODE	Data suppressed for respondent confidentiality
T1_ID	FALL 2010 TEACHER IDENTIFICATION NUMBER	Data suppressed for respondent confidentiality
T2_ID	SPRING 2011 TEACHER IDENTIFICATION NUMBR	Data suppressed for respondent confidentiality
D2T_ID	SPRING 2011 SPECIAL ED TEACHER ID NUMBER	Data suppressed for respondent confidentiality
X1REGION	X1 CENSUS REGION OF SCHOOL	Data suppressed for respondent confidentiality
X2REGION	X2 CENSUS REGION OF SCHOOL	Data suppressed for respondent confidentiality
P1CENTRC	P1 HOME CENSUS TRACT CODE	Data suppressed for respondent confidentiality
P1HOMZIP	P1 HOME ZIP CODE	Data suppressed for respondent confidentiality
P2CENTRC	P2 HOME CENSUS TRACT CODE	Data suppressed for respondent confidentiality
P2HOMZIP	P2 HOME ZIP CODE	Data suppressed for respondent confidentiality

Exhibit 12. ECLS-K:2011 masked variables, kindergarten field management system and identification variables

Variable name	Variable description	Comments
C3HGT1	C3 ACQ005 HEIGHT MEASUREMENT 1	Data recoded for respondent confidentiality
C3WGT1	C3 ACQ010 WEIGHT MEASUREMENT 1	Data recoded for respondent confidentiality
C3HGT2	C3 ACQ015 HEIGHT MEASUREMENT 2	Data recoded for respondent confidentiality
C3WGT2	C3 ACQ020 WEIGHT MEASUREMENT 2	Data recoded for respondent confidentiality
C3SPECAC	C3 ACQ045 SPECIAL ACCOMMODATION LISTED	Data suppressed for respondent confidentiality
C3BMBTHR	C3 ACQ030 INTERRUPTION - BOMB THREAT	Data suppressed for respondent confidentiality
C3FRDRILL	C3 ACQ030 INTERRUPTION - FIRE DRILL	Data suppressed for respondent confidentiality
C3ACCOM	C3 ACQ050 LISTED ACCOMMODATIONS PROVIDED	Data suppressed for respondent confidentiality
C3SETTNG	C3 ACQ055 ACCMMDTNS PROVIDED - SETTING	Data suppressed for respondent confidentiality
C3SCHEDL	C3 ACQ055 ACCMMDTNS PROVIDED - SCHEDULE	Data suppressed for respondent confidentiality
C3AIDE	C3 ACQ055 ACCMMDTNS PROVIDED - AIDE	Data suppressed for respondent confidentiality
C3DEVICE	C3 ACQ055 ACCMMDTNS PROVIDED - DEVICE	Data suppressed for respondent confidentiality
C3IEPPRO	C3 ACQ055 ACCMMDTNS PROVIDED - IEP	Data suppressed for respondent confidentiality
C3BREAKS	C3 ACQ055 ACCMMDTNS PROVIDED - IEP	Data suppressed for respondent confidentiality
C3EXTTIM	C3 ACQ055 ACCMMDTNS PROVIDED - EXT TIME	Data suppressed for respondent confidentiality
C3STAFF	C3 ACQ055 ACCMMDTNS PROVIDED - STAFF	Data suppressed for respondent confidentiality
C3BRKRES	C3 REASON FOR THE BREAKOFF	Data suppressed for respondent confidentiality

Exhibit 13. ECLS-K:2011 masked variables, fall 2011 child assessment

Variable name	Variable description	Comments
C4HGT1	C4 ACQ005 HEIGHT MEASUREMENT 1	Data recoded for respondent confidentiality
C4WGT1	C4 ACQ010 WEIGHT MEASUREMENT 1	Data recoded for respondent confidentiality
C4HGT2	C4 ACQ015 HEIGHT MEASUREMENT 2	Data recoded for respondent confidentiality
C4WGT2	C4 ACQ020 WEIGHT MEASUREMENT 2	Data recoded for respondent confidentiality
C4BMBTHR	C4 ACQ030 INTERRUPTION - BOMB THREAT	Data suppressed for respondent confidentiality
C4FRDRILL	C4 ACQ030 INTERRUPTION - FIRE DRILL	Data suppressed for respondent confidentiality
C4SPECAC	C4 ACQ045 SPECIAL ACCOMMODATION LISTED	Data suppressed for respondent confidentiality
C4ACCOM	C4 ACQ050 LISTED ACCOMMODATIONS PROVIDED	Data suppressed for respondent confidentiality
C4SETTNG	C4 ACQ055 ACCMMDTNS PROVIDED - SETTING	Data suppressed for respondent confidentiality
C4SCHEDL	C4 ACQ055 ACCMMDTNS PROVIDED - SCHEDULE	Data suppressed for respondent confidentiality
C4AIDE	C4 ACQ055 ACCMMDTNS PROVIDED - AIDE	Data suppressed for respondent confidentiality
C4DEVICE	C4 ACQ055 ACCMMDTNS PROVIDED - DEVICE	Data suppressed for respondent confidentiality
C4IEPPRO	C4 ACQ055 ACCMMDTNS PROVIDED - IEP	Data suppressed for respondent confidentiality
C4EXTTIM	C4 ACQ055 ACCMMDTNS PROVIDED - EXT TIME	Data suppressed for respondent confidentiality
C4STAFF	C4 ACQ055 ACCMMDTNS PROVIDED - STAFF	Data suppressed for respondent confidentiality
C4BRKRES	C4 REASON FOR THE BREAKOFF	Data suppressed for respondent confidentiality

Exhibit 14. ECLS-K:2011 masked variables, spring 2012 child assessment

Variable name	Variable description	Comments
P3CHDOBY	P3 INQ170C CHILD DATE OF BIRTH YEAR	Data recoded for respondent confidentiality
P3NWTHPA	P3 TUQ040 # WKS NOT STAY W/PARENT	Data recoded for respondent confidentiality
<b>P3ATCAMP</b>	P3 TUQ060C CHILD AT CAMP	Data suppressed for respondent confidentiality
<b>P3SMSCNUM</b>	P3 HEQ230A LENGTH ATTEND SUMMER SCHOOL	Data suppressed for respondent confidentiality
<b>P3SMSCUN</b>	P3 HEQ230B UNIT LENGTH SUMMER SCHOOL	Data suppressed for respondent confidentiality
P3NDYPRM	P3 HEQ250 # DAYS/WK ATTEND SUMMER SCHOOL	Data recoded for respondent confidentiality
<b>P3SMENGL</b>	P3 HEQ270G SUMMER SCHOOL ENGLISH INSTR	Data suppressed for respondent confidentiality
P3SCHSRV	P3 HEQ290 RECEIVED SPEC SERVICES SUMMER	Data suppressed for respondent confidentiality
<b>P3SPCTRP</b>	P3 HEQ298A CHD RECVD SPEECH/LANG THERAPY	Data suppressed for respondent confidentiality
P3OCCTRP	P3 HEQ298B CHILD RECVD OCCUP THERAPY	Data suppressed for respondent confidentiality
<b>P3PHYTRP</b>	P3 HEQ298C CHILD RECVD PHYSICAL THERAPY	Data suppressed for respondent confidentiality
P3PSYSRV	P3 HEQ298D CHILD RECVD PSYCH SERVICES	Data suppressed for respondent confidentiality
P3OTHTRP	P3 HEQ298E CHILD RECVD OTHER THERAPY	Data suppressed for respondent confidentiality
<b>P3NUMCMP</b>	P3 HEQ305 # CAMPS	Data recoded for respondent confidentiality
<b>P3NMDCMP</b>	P3 HEQ330 # DAYS/WK ATTEND CAMP	Data recoded for respondent confidentiality
<b>P3NMHCMP</b>	P3 HEQ340 # HRS/DAY ATTEND CAMP	Data recoded for respondent confidentiality
<b>P3NMWCMP</b>	P3 HEQ350 # WEEKS ATTEND CAMP	Data recoded for respondent confidentiality
<b>P3TUTREA</b>	P3 HEQ440A CHILD TUTORED READING	Data suppressed for respondent confidentiality
P3TUTMTH	P3 HEQ440B CHILD TUTORED MATH	Data suppressed for respondent confidentiality
P3TUTSCI	P3 HEQ440C CHILD TUTORED SCIENCE	Data suppressed for respondent confidentiality
P3TUTENGL	P3 HEQ440D CHILD TUTORED FOR ENG LANG SKLS	Data suppressed for respondent confidentiality
P3TUTFRNGL	P3 HEQ440E CHILD TUTORED FOR FRGN LANG SKLS	Data suppressed for respondent confidentiality
P3TUTOTH	P3 HEQ440F CHILD TUTORED OTHER SUBJ	Data suppressed for respondent confidentiality
P3NMDTUT	P3 HEQ450 # DAYS/WK TUTORED	Data suppressed for respondent confidentiality
P3NMHTUT	P3 HEQ460 # HRS/DAY TUTORED	Data suppressed for respondent confidentiality
P3NMWTUT	P3 HEQ470 # WEEKS TUTORED	Data suppressed for respondent confidentiality
<b>P3CARTYPE</b>	P3 CCQ012 PRIMARY TYPE OF CARE IN SUMMER	Data recoded for respondent confidentiality
P3CARNMH	P3 CCQ013 # HRS/WK IN PRIMARY CARE ARRANGEM	Data recoded for respondent confidentiality
P3CARNMW	P3 CCQ014 # WKS IN PRIMARY CARE	Data recoded for respondent confidentiality
<b>P3LANGUA</b>	P3 CMQ690 LANGUAGE INTERVIEW CONDUCTED	Data recoded for respondent confidentiality

Variable name	Variable description	Comments
P4CHDOBY	P4 INQ170C CHILD DATE OF BIRTH YEAR	Data recoded for respondent confidentiality
P4BTHPLC	P4 INQ300 CHILD BORN IN THIS COUNTRY	Data suppressed for respondent confidentiality
P4CNTRYB	P4 INQ310 CHILD COUNTRY OF BIRTH	Data suppressed for respondent confidentiality
P4YRCOME	P4 INQ320 YEAR CHILD CAME TO UNITED STATES	Data suppressed for respondent confidentiality
P4CITIZN	P4 INQ330 CHILD A U.S. CITIZEN	Data suppressed for respondent confidentiality
P4SCHOOL	P4 PIQ060 SCHOOL ASSIGNED OR SELECTED	Data recoded for respondent confidentiality
P4ATTSCH	P4 PIQ065 DOES CHILD ATTEND SCHOOL	Data suppressed for respondent confidentialit
P4HRSSCH	P4 PIQ066 HOURS IN SCHOOL PER WEEK	Data suppressed for respondent confidentialit
P4REASL1	P4 FSQ015 REASON LEFT - PERS 1	Data suppressed for respondent confidentialit
P4REASL2	P4 FSQ015 REASON LEFT - PERS 2	Data suppressed for respondent confidentialit
P4REASL3	P4 FSQ015 REASON LEFT - PERS 3	Data suppressed for respondent confidentialit
P4REASL4	P4 FSQ015 REASON LEFT - PERS 4	Data suppressed for respondent confidentiality
P4REASL5	P4 FSQ015 REASON LEFT - PERS 5	Data suppressed for respondent confidentialit
P4REASL6	P4 FSQ015 REASON LEFT - PERS 6	Data suppressed for respondent confidentialit
P4REASL7	P4 FSQ015 REASON LEFT - PERS 7	Data suppressed for respondent confidentialit
P4REASL8	P4 FSQ015 REASON LEFT - PERS 8	Data suppressed for respondent confidentialit
P4REASL9	P4 FSQ015 REASON LEFT - PERS 9	Data suppressed for respondent confidentialit
P4REASL10	P4 FSQ015 REASON LEFT - PERS 10	Data suppressed for respondent confidentialit
P4REASL11	P4 FSQ015 REASON LEFT - PERS 11	Data suppressed for respondent confidentialit
P4REASL12	P4 FSQ015 REASON LEFT - PERS 12	Data suppressed for respondent confidentialit
P4REASL13	P4 FSQ015 REASON LEFT - PERS 13	Data suppressed for respondent confidentialit
P4REASL14	P4 FSQ015 REASON LEFT - PERS 14	Data suppressed for respondent confidentialit
P4REASL15	P4 FSQ015 REASON LEFT - PERS 15	Data suppressed for respondent confidentialit
P4REASL16	P4 FSQ015 REASON LEFT - PERS 16	Data suppressed for respondent confidentialit
P4REASL17	P4 FSQ015 REASON LEFT - PERS 17	Data suppressed for respondent confidentialit
P4REASL18	P4 FSQ015 REASON LEFT - PERS 18	Data suppressed for respondent confidentialit
P4REASL19	P4 FSQ015 REASON LEFT - PERS 19	Data suppressed for respondent confidentialit
P4REASL20	P4 FSQ015 REASON LEFT - PERS 20	Data suppressed for respondent confidentialit
P4REASL21	P4 FSQ015 REASON LEFT - PERS 21	Data suppressed for respondent confidentialit
P4REASL22	P4 FSQ015 REASON LEFT - PERS 22	Data suppressed for respondent confidentialit
P4REASL23	P4 FSQ015 REASON LEFT - PERS 23	Data suppressed for respondent confidentialit
P4REASL24	P4 FSQ015 REASON LEFT - PERS 24	Data suppressed for respondent confidentialit
P4REASL25	P4 FSQ015 REASON LEFT - PERS 25	Data suppressed for respondent confidentialit
P4CURMAR	P4 FSQ200 CURRENT MARITAL STATUS	Data recoded for respondent confidentiality
P4PARCT1	P4 FSQ212 PARENT 1'S HOME COUNTRY	Data recoded for respondent confidentiality
P4PARCT2	P4 FSQ212 PARENT 2'S HOME COUNTRY	Data recoded for respondent confidentiality
P4PAREM1	P4 FSQ213 AGE PARENT 1 MOVED TO US	Data recoded for respondent confidentiality

Exhibit 16. ECLS-F	K:2011 masked variables.	, spring 2012 parent interview
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Variable name	Variable description	Comments
P4PAREM2	P4 FSQ213 AGE PARENT 2 MOVED TO US	Data recoded for respondent confidentiality
P4ARABIC	P4 PLQ040 OTHER LANGUAGE - ARABIC	Data suppressed for respondent confidentialit
P4FLPNO	P4 PLQ040 OTHER LANGUAGE - FILIPINO	Data suppressed for respondent confidentialit
P4FRENCH	P4 PLQ040 OTHER LANGUAGE - FRENCH	Data suppressed for respondent confidentialit
P4GERMAN	P4 PLQ040 OTHER LANGUAGE - GERMAN	Data suppressed for respondent confidentialit
P4GREEK	P4 PLQ040 OTHER LANGUAGE - GREEK	Data suppressed for respondent confidentialit
P4ITALN	P4 PLQ040 OTHER LANGUAGE - ITALIAN	Data suppressed for respondent confidentialit
P4JAPNES	P4 PLQ040 OTHER LANGUAGE - JAPANESE	Data suppressed for respondent confidentialit
P4KOREAN	P4 PLQ040 OTHER LANGUAGE - KOREAN	Data suppressed for respondent confidentialit
P4POLISH	P4 PLQ040 OTHER LANGUAGE - POLISH	Data suppressed for respondent confidentialit
P4PORTUG	P4 PLQ040 OTHER LANGUAGE - PORTUGUESE	Data suppressed for respondent confidentialit
P4VIETNM	P4 PLQ040 OTHER LANGUAGE - VIETNAMESE	Data suppressed for respondent confidentialit
P4FARSI	P4 PLQ040 OTHER LANGUAGE - FARSI	Data suppressed for respondent confidentialit
P4HMONG	P4 PLQ040 OTHER LANGUAGE - HMONG	Data suppressed for respondent confidentialit
P4AFRLNG	P4 PLQ040 OTHER LANGUAGE - AFRICAN LANG	Data suppressed for respondent confidentialit
P4EASTEUR	P4 PLQ040 OTHER LANGUAGE - EASTRN EUROPN	Data suppressed for respondent confidentialit
P4NATVAM	P4 PLQ040 OTHER LANGUAGE - NATIVE AMER	Data suppressed for respondent confidentialit
P4SIGNLG	P4 PLQ040 OTHER LANGUAGE - SIGN LANG	Data suppressed for respondent confidentialit
P4MIDEST	P4 PLQ040 OTHER LANGUAGE - MIDDLE EASTRN	Data suppressed for respondent confidentialit
P4WSTEUR	P4 PLQ040 OTHER LANGUAGE - WESTRN EUROPN	Data suppressed for respondent confidentialit
P4SOASIA	P4 PLQ040 OTHER LANGUAGE - SOUTHEAST ASN	Data suppressed for respondent confidentialit
P4PACISL	P4 PLQ040 OTHER LANGUAGE - PACIFIC ISLDR	Data suppressed for respondent confidentialit
P4CREOLE	P4 PLQ040 OTHER LANGUAGE - CREOLE	Data suppressed for respondent confidentialit
P4OTHLNG	P4 PLQ040 OTHER LANGUAGE - OTHER	Data suppressed for respondent confidentialit
P4PRMLNG	P4 PLQ060 WHAT PRIMARY LANGUAGE AT HOME	Data recoded for respondent confidentiality
P4RELNUM	P4 CCQ060 # REL CARE ARRANGMNTS NOW	Data recoded for respondent confidentiality
P4RELMST	P4 CCQ065 WHICH RELATIVE GIVES MOST CARE	Data recoded for respondent confidentiality
P4RDAYS	P4 CCQ085 # OF DAYS/WK OF REL CARE	Data recoded for respondent confidentiality
P4RPDREL	P4 CCQ093A REL CARE PAID BY OTH RELATIV	Data suppressed for respondent confidentialit
P4RPDTNF	P4 CCQ093B REL CARE PAID BY TANF	Data suppressed for respondent confidentialit
P4RPDSOC	P4 CCQ093C REL CARE PAID BY SOC SERVC	Data suppressed for respondent confidentialit
P4RPDEMP	P4 CCQ093D REL CARE PAID BY EMPLOYER	Data suppressed for respondent confidentialit
P4NRNUM	P4 CCQ165 # NONREL CARE ARRANGMNTS NOW	Data recoded for respondent confidentiality
P4NPDREL	P4 CCQ193A NR CARE PAID BY OTH RELATIVE	Data suppressed for respondent confidentialit
P4NPDTNF	P4 CCQ193B NR CARE PAID BY TANF	Data suppressed for respondent confidentialit
P4NPDSOC	P4 CCQ193C NR CARE PAID BY SOC SERVC	Data suppressed for respondent confidentialit
P4NPDEMP	P4 CCQ193D NR CARE PAID EMPLOYER	Data suppressed for respondent confidentialit
P4NPDOTH	P4 CCQ193E NR CARE PAID BY OTHER	Data suppressed for respondent confidentialit

Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview—Continued	Exhibit 16.	ECLS-K:2011 masked variables, spring 2012 parent interview—Continued
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Variable name	Variable description	Comments
P4NAMTCH	P4 CCQ196 AMT PD NONREL CARE # OF CHLD	Data recoded for respondent confidentiality
P4NHROTH	P4 CCQ205 # HRS/WK OTHER NONREL CARE	Data suppressed for respondent confidentiality
P4CTRNUM	P4 CCQ325 # CNTR CARE ARRANGMNTS NOW	Data suppressed for respondent confidentiality
P4CWKEND	P4 CCQ335C WHEN PROGRAM - WEEKENDS	Data suppressed for respondent confidentiality
P4CPDREL	P4 CCQ370A CNTR CARE PD BY OTH REL	Data suppressed for respondent confidentiality
P4CPDTCF	P4 CCQ370B CENTER CARE PAID BY TANF	Data suppressed for respondent confidentiality
P4CPDSOC	P4 CCQ370C CNTR CARE PD BY SOC SVC	Data suppressed for respondent confidentiality
P4CPDEMP	P4 CCQ370D CENTER CARE PAID BY EMPLOYER	Data suppressed for respondent confidentiality
P4CPDOTH	P4 CCQ370E CNTR CARE PAID BY OTHER	Data suppressed for respondent confidentiality
P4CAMTCH	P4 CCQ373 AMT PD CENTER CARE # OF CHILD	Data recoded for respondent confidentiality
P4CHROTH	P4 CCQ375 #HRS/WK AT OTHER PROGRAMS	Data suppressed for respondent confidentialit
P4SELFCA	P4 CCQ376 CHILD CARES FOR SELF	Data suppressed for respondent confidentiality
P4SCHRWK	P4 CCQ377 HR/WK CHILD CARES FOR SELF	Data suppressed for respondent confidentialit
P4BMCNTC	P4 NRQ040 TIME FROM LAST CONTACT-BIOMOM	Data recoded for respondent confidentiality
P4BDCNTC	P4 NRQ040 TIME FROM LAST CONTACT-BIODAD	Data recoded for respondent confidentiality
P4ADCNTC	P4 NRQ040 TIME FROM LAST CONTACT-ADPDAD	Data suppressed for respondent confidentialit
P4ADDYWK	P4 NRQ050 #DAYS CHD SAW ADPDAD LAST 4WKS	Data suppressed for respondent confidentialit
P4ADPHEM	P4 NRQ123 #TIMES PHONE/CALL/EMAIL/TEXT	Data suppressed for respondent confidentialit
P4DENTIS	P4 CHQ010 LAST VISIT TO DENTIST	Data recoded for respondent confidentiality
P4DOCTOR	P4 CHQ020 LAST VISIT-ROUTINE HEALTH CARE	Data recoded for respondent confidentiality
P4DIAEAR	P4 CHQ023 DIAGNSE EAR INFCT SINCE SPRING	Data recoded for respondent confidentiality
P4KDECN	P4 CHQ024B EAR TREATMENT - DECONGEST	Data suppressed for respondent confidentialit
P4KTUBE	P4 CHQ024D EAR TREATMENT - EAR TUBES	Data suppressed for respondent confidentialit
P4KFLSH	P4 CHQ024G EAR TREATMENT - FLUSH/IRRIG	Data suppressed for respondent confidentialit
P4KTONS	P4 CHQ024H EAR TREATMENT - TONSILS/ADNOID	Data suppressed for respondent confidentialit
P4KCHIR	P4 CHQ024I EAR TREATMENT - CHIROPRACTIC	Data suppressed for respondent confidentialit
P4KNODR	P4 CHQ024J EAR TREATMENT - NO DR VISIT	Data suppressed for respondent confidentialit
P4KOTHR	P4 CHQ024K EAR TREATMENT - OTHER	Data suppressed for respondent confidentialit
P4KETLO	P4 CHQ025 EAR TUBES IN WHICH EAR	Data suppressed for respondent confidentialit
P4LRNDIS	P4 CHQ125 DIAGNOSIS - LEARN DISABILITY	Data suppressed for respondent confidentialit
P4ADD	P4 CHQ125 DIAGNOSIS - ADD	Data suppressed for respondent confidentialit
P4ADHA	P4 CHQ125 DIAGNOSIS - ADHD	Data suppressed for respondent confidentialit
P4DEVDLY	P4 CHQ125 DIAGNOSIS - DEVELOP DELAY	Data suppressed for respondent confidentialit
P4AUTSM	P4 CHQ125 DIAGNOSIS - AUTISM SPEC DISORD	Data suppressed for respondent confidentialit
P4DYSLXA	P4 CHQ125 DIAGNOSIS - DYSLEXIA	Data suppressed for respondent confidentialit
P4DYSCLC	P4 CHQ125 DIAGNOSIS - DYSCALCULIA	Data suppressed for respondent confidentialit
P4COGNTV	P4 CHQ125 DIAGNOSIS - SEVERE COGNITIVE	Data suppressed for respondent confidentialit
P4ORTHOP	P4 CHQ125 DIAGNOSIS - ORTHOPEDIC IMPAIR	Data suppressed for respondent confidentiality

Exhibit 16.	ECLS-K:2011	masked variables	spring 2012	parent interview—Continued	ł

Variable name	Variable description	Comments
P4EMODIS	P4 CHQ125 DIAGNOSIS - SER EMOTION DISTRB	Data suppressed for respondent confidentialit
P4TRMBRI	P4 CHQ125 DIAGNOSIS - TRAUMATC BRAIN INJ	Data suppressed for respondent confidentiality
P4PNCDIS	P4 CHQ125 DIAGNOSIS - PANIC DISORDER	Data suppressed for respondent confidentiality
P4SEPANX	P4 CHQ125 DIAGNOSIS - SEPARATION ANXIETY	Data suppressed for respondent confidentiality
P4OCD	P4 CHQ125 DIAGNOSIS - OCD	Data suppressed for respondent confidentiality
P4GENANX	P4 CHQ125 DIAGNOSIS - GEN ANXIETY DIS	Data suppressed for respondent confidentiality
P4OTHANX	P4 CHQ125 DIAGNOSIS - OTHER ANXIETY DIS	Data suppressed for respondent confidentiality
P4BIPOLR	P4 CHQ125 DIAGNOSIS - BIPOLAR DISORDER	Data suppressed for respondent confidentiality
P4DEPRESS	P4 CHQ125 DIAGNOSIS - DEPRESSION	Data suppressed for respondent confidentiality
P4SPEECH	P4 CHQ125 DIAGNOSIS - SPEECH PROBLEMS	Data suppressed for respondent confidentiality
P4SENSDF	P4 CHQ125 DIAGNOSIS - SENSORY DEFICIT	Data suppressed for respondent confidentialit
P4OPPDEF	P4 CHQ125 DIAGNOSIS - OPPOS DEFIANCE DIS	Data suppressed for respondent confidentialit
P4OTHDIA	P4 CHQ125 DIAGNOSIS - OTHER	Data suppressed for respondent confidentialit
P4AUTSPC	P4 CHQ126 TYPE OF AUTISM SPECRM DISORDER	Data suppressed for respondent confidentialit
P4AGELD	P4 CHQ130 AGE AT 1ST DIAGNS-LRN DISABLTY	Data suppressed for respondent confidentialit
P4AGELDU	P4 CHQ131 AGE 1ST DIAGNS-LRN DISBL UNIT	Data suppressed for respondent confidentialit
P4AGELDM	P4 CHQ135A AGE 1ST DIAGNS-LRN DIS MONTH	Data suppressed for respondent confidentialit
P4AGELDY	P4 CHQ135B AGE 1ST DIAGNS-LRN DIS YEAR	Data suppressed for respondent confidentialit
P4MEDLD	P4 CHQ140 TAKE PRESCRIPTION FOR LRN DIS	Data suppressed for respondent confidentialit
P4MEDLDL	P4 CHQ173 HOW LONG TAKING MED - LRN DIS	Data suppressed for respondent confidentialit
P4AGEADD	P4 CHQ130 AGE AT 1ST DIAGNS-ADD	Data suppressed for respondent confidentialit
P4AGEADU	P4 CHQ131 AGE 1ST DIAGNS-ADD UNIT	Data suppressed for respondent confidentialit
P4AGEADM	P4 CHQ135A AGE 1ST DIAGNS-ADD MONTH	Data suppressed for respondent confidentialit
P4AGEADY	P4 CHQ135B AGE 1ST DIAGNS-ADD YEAR	Data suppressed for respondent confidentialit
P4MEDAD	P4 CHQ140 TAKING PRESCRIPTION FOR ADD	Data suppressed for respondent confidentialit
P4LOCMED1	P4 CHQ155 LOCATION TAKING RX -ADD	Data suppressed for respondent confidentialit
P4MEDLAD	P4 CHQ173 HOW LONG TAKING MED - ADD	Data suppressed for respondent confidentialit
P4AGEAHD	P4 CHQ130 AGE AT 1ST DIAGNS-ADHD	Data suppressed for respondent confidentialit
P4AGEHDU	P4 CHQ131 AGE 1ST DIAGNS-ADHD UNIT	Data suppressed for respondent confidentialit
P4AGEHDM	P4 CHQ135A AGE 1ST DIAGNS-ADHD MONTH	Data suppressed for respondent confidentialit
P4AGEHDY	P4 CHQ135B AGE 1ST DIAGNS-ADHD YEAR	Data suppressed for respondent confidentialit
P4MEDLHD	P4 CHQ173 HOW LONG TAKING MED - ADHD	Data suppressed for respondent confidentialit
P4AGEDV	P4 CHQ130 AGE AT 1ST DIAGNS-DEV DELAY	Data suppressed for respondent confidentialit
P4AGEDVU	P4 CHQ131 AGE 1ST DIAGNS-DEV DEL UNIT	Data suppressed for respondent confidentialit
P4AGEDVM	P4 CHQ135A AGE 1ST DIAGNS-DEV DEL MONTH	Data suppressed for respondent confidentialit
P4AGEDVY	P4 CHQ135B AGE 1ST DIAGNS-DEV DEL YEAR	Data suppressed for respondent confidentialit
P4MEDDV	P4 CHQ140 TAKE PRESCRIPTION FOR DEV DEL	Data suppressed for respondent confidentialit
P4MEDDVL	P4 CHQ173 HOW LONG TAKING MED - DEV DEL	Data suppressed for respondent confidentialit

Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview—Continued

Variable name	Variable description	Comments
P4AGEAU	P4 CHQ130 AGE AT 1ST DIAGNS-AUTISM SD	Data suppressed for respondent confidentiality
P4AGEAUU	P4 CHQ131 AGE 1ST DIAGNS-AUTISM SD UNIT	Data suppressed for respondent confidentiality
P4AGEAUM	P4 CHQ135A AGE 1ST DIAGNS-AUTISM SD MNTH	Data suppressed for respondent confidentiality
P4AGEAUY	P4 CHQ135B AGE 1ST DIAGNS-AUTISM SD YEAR	Data suppressed for respondent confidentiality
P4MEDAU	P4 CHQ140 TAKE PRESCRIPTION AUTISM SD	Data suppressed for respondent confidentiality
P4MEDAUL	P4 CHQ173 HOW LONG TAKING MED -AUTISM SD	Data suppressed for respondent confidentiality
P4AGEDL	P4 CHQ130 AGE AT 1ST DIAGNS-DYSLXIA	Data suppressed for respondent confidentiality
P4AGEDLU	P4 CHQ131 AGE 1ST DIAGNS-DYSLXIA UNIT	Data suppressed for respondent confidentiality
P4AGEDLM	P4 CHQ135A AGE 1ST DIAGNS-DYSLXIA MONTH	Data suppressed for respondent confidentiality
P4AGEDLY	P4 CHQ135B AGE 1ST DIAGNS-DYSLXIA YEAR	Data suppressed for respondent confidentiality
P4MEDDL	P4 CHQ140 TAKE PRESCRIPTION FOR DYSLXIA	Data suppressed for respondent confidentiality
P4MEDDLL	P4 CHQ173 HOW LONG TAKING MED - DYSLXIA	Data suppressed for respondent confidentiality
P4AGEDC	P4 CHQ130 AGE AT 1ST DIAGNS-DYSCALCULIA	Data suppressed for respondent confidentiality
P4AGEDCU	P4 CHQ131 AGE 1ST DIAGNS-DYSCLC UNIT	Data suppressed for respondent confidentiality
P4AGEDCM	P4 CHQ135A AGE 1ST DIAGNS-DYSCLC MONTH	Data suppressed for respondent confidentiality
P4AGEDCY	P4 CHQ135B AGE 1ST DIAGNS-DYSCLC YEAR	Data suppressed for respondent confidentiality
P4MEDDC	P4 CHQ140 TAKE PRESCRIPTION FOR DYSCLC	Data suppressed for respondent confidentiality
P4MEDDCL	P4 CHQ173 HOW LONG TAKING MED - DYSCLC	Data suppressed for respondent confidentiality
P4AGECD	P4 CHQ130 AGE AT 1ST DIAGNS-COGN DIS/MR	Data suppressed for respondent confidentiality
P4AGECDU	P4 CHQ131 AGE 1ST DIAGNS-COG/MR UNIT	Data suppressed for respondent confidentiality
P4AGECDM	P4 CHQ135A AGE 1ST DIAGNS-COG/MR MONTH	Data suppressed for respondent confidentiality
P4AGECDY	P4 CHQ135B AGE 1ST DIAGNS-COG/MR YEAR	Data suppressed for respondent confidentiality
P4MEDCD	P4 CHQ140 TAKE PRESCRIPTION FOR COG/MR	Data suppressed for respondent confidentiality
P4MEDCDL	P4 CHQ173 HOW LONG TAKING MED - COG/MR	Data suppressed for respondent confidentiality
P4AGEOR	P4 CHQ130 AGE AT 1ST DIAGNS-ORTHO IMPAIR	Data suppressed for respondent confidentiality
P4AGEORU	P4 CHQ131 AGE 1ST DIAGNS-ORTHO UNIT	Data suppressed for respondent confidentiality
P4AGEORM	P4 CHQ135A AGE 1ST DIAGNS-ORTHO MONTH	Data suppressed for respondent confidentiality
P4AGEORY	P4 CHQ135B AGE 1ST DIAGNS-ORTHO YEAR	Data suppressed for respondent confidentiality
P4MEDOR	P4 CHQ140 TAKE PRESCRIPTION FOR ORTHO	Data suppressed for respondent confidentiality
P4MEDORL	P4 CHQ173 HOW LONG TAKING MED - ORTHO	Data suppressed for respondent confidentiality
P4AGEEM	P4 CHQ130 AGE AT 1ST DIAGNS-EMOT DISTRB	Data suppressed for respondent confidentiality
P4AGEEMU	P4 CHQ131 AGE 1ST DIAGNS-EMOT UNIT	Data suppressed for respondent confidentiality
P4AGEEMM	P4 CHQ135A AGE 1ST DIAGNS-EMOT MONTH	Data suppressed for respondent confidentiality
P4AGEEMY	P4 CHQ135B AGE 1ST DIAGNS-EMOT YEAR	Data suppressed for respondent confidentiality
P4MEDEM	P4 CHQ140 TAKE PRESCRIPTION FOR EMOT	Data suppressed for respondent confidentiality
P4MEDEML	P4 CHQ173 HOW LONG TAKING MED - EMOT	Data suppressed for respondent confidentiality
P4AGEBR	P4 CHQ130 AGE AT 1ST DIAGNS-BRAIN INJRY	Data suppressed for respondent confidentiality
P4AGEBRU	P4 CHQ131 AGE 1ST DIAGNS-BRAIN UNIT	Data suppressed for respondent confidentiality

Exhibit 16.	ECLS-K:2011	masked variables	, spring 2012	parent interview-	Continued
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Variable name	Variable description	Comments
P4AGEBRM	P4 CHQ135A AGE 1ST DIAGNS-BRAIN MONTH	Data suppressed for respondent confidentiality
P4AGEBRY	P4 CHQ135B AGE 1ST DIAGNS-BRAIN YEAR	Data suppressed for respondent confidentiality
P4MEDBR	P4 CHQ140 TAKE PRESCRIPTION FOR BRAIN	Data suppressed for respondent confidentiality
P4MEDBRL	P4 CHQ173 HOW LONG TAKING MED - BRAIN	Data suppressed for respondent confidentiality
P4AGEPC	P4 CHQ130 AGE AT 1ST DIAGNS-PANIC DIS	Data suppressed for respondent confidentiality
P4AGEPCU	P4 CHQ131 AGE 1ST DIAGNS-PANIC UNIT	Data suppressed for respondent confidentiality
P4AGEPCM	P4 CHQ135A AGE 1ST DIAGNS-PANIC MONTH	Data suppressed for respondent confidentiality
P4AGEPCY	P4 CHQ135B AGE 1ST DIAGNS-PANIC YEAR	Data suppressed for respondent confidentiality
P4MEDPC	P4 CHQ140 TAKE PRESCRIPTION FOR PANIC	Data suppressed for respondent confidentiality
P4MEDPCL	P4 CHQ173 HOW LONG TAKING MED - PANIC	Data suppressed for respondent confidentialit
P4AGESA	P4 CHQ130 AGE AT 1ST DIAGNS-SEP ANXTY	Data suppressed for respondent confidentialit
P4AGESAU	P4 CHQ131 AGE 1ST DIAGNS-SEP ANX UNIT	Data suppressed for respondent confidentiality
P4AGESAM	P4 CHQ135A AGE 1ST DIAGNS-SEP ANX MONTH	Data suppressed for respondent confidentialit
P4AGESAY	P4 CHQ135B AGE 1ST DIAGNS-SEP ANX YEAR	Data suppressed for respondent confidentialit
P4MEDSA	P4 CHQ140 TAKE PRESCRIPTION FOR SEP ANX	Data suppressed for respondent confidentialit
P4MEDSAL	P4 CHQ173 HOW LONG TAKING MED - SEP ANX	Data suppressed for respondent confidentialit
P4AGEOC	P4 CHQ130 AGE AT 1ST DIAGNS-OCD	Data suppressed for respondent confidentialit
P4AGEOCU	P4 CHQ131 AGE 1ST DIAGNS-OCD UNIT	Data suppressed for respondent confidentialit
P4AGEOCM	P4 CHQ135A AGE 1ST DIAGNS-OCD MONTH	Data suppressed for respondent confidentialit
P4AGEOCY	P4 CHQ135B AGE 1ST DIAGNS-OCD YEAR	Data suppressed for respondent confidentialit
P4MEDOC	P4 CHQ140 TAKE PRESCRIPTION FOR OCD	Data suppressed for respondent confidentialit
P4MEDOCL	P4 CHQ173 HOW LONG TAKING MED - OCD	Data suppressed for respondent confidentialit
P4AGEGA	P4 CHQ130 AGE AT 1ST DIAGNS-GAD	Data suppressed for respondent confidentialit
P4AGEGAU	P4 CHQ131 AGE 1ST DIAGNS-GAD UNIT	Data suppressed for respondent confidentialit
P4AGEGAM	P4 CHQ135A AGE 1ST DIAGNS-GAD MONTH	Data suppressed for respondent confidentialit
P4AGEGAY	P4 CHQ135B AGE 1ST DIAGNS-GAD YEAR	Data suppressed for respondent confidentialit
P4MEDGA	P4 CHQ140 TAKE PRESCRIPTION FOR GAD	Data suppressed for respondent confidentialit
P4MEDGAL	P4 CHQ173 HOW LONG TAKING MED - GAD	Data suppressed for respondent confidentialit
P4AGEAN	P4 CHQ130 AGE AT 1ST DIAGNS-OTH ANXTY DS	Data suppressed for respondent confidentialit
P4AGEANU	P4 CHQ131 AGE 1ST DIAGNS-ANXTY UNIT	Data suppressed for respondent confidentialit
P4AGEANM	P4 CHQ135A AGE 1ST DIAGNS-ANXTY MONTH	Data suppressed for respondent confidentialit
P4AGEANY	P4 CHQ135B AGE 1ST DIAGNS-ANXTY YEAR	Data suppressed for respondent confidentialit
P4MEDAN	P4 CHQ140 TAKE PRESCRIPTION FOR ANXTY	Data suppressed for respondent confidentialit
P4MEDANL	P4 CHQ173 HOW LONG TAKING MED - ANXTY	Data suppressed for respondent confidentialit
P4AGEBI	P4 CHQ130 AGE AT 1ST DIAGNS-BIPOLAR	Data suppressed for respondent confidentialit
P4AGEBIU	P4 CHQ131 AGE 1ST DIAGNS-BIPLR UNIT	Data suppressed for respondent confidentialit
P4AGEBIM	P4 CHQ135A AGE 1ST DIAGNS-BIPLR MONTH	Data suppressed for respondent confidentialit
P4AGEBIY	P4 CHQ135B AGE 1ST DIAGNS-BIPLR YEAR	Data suppressed for respondent confidentialit

Exhibit 16.	ECLS-K:2011	masked variables,	, spring 2012	parent interview-	-Continued
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Variable name	Variable description	Comments
P4MEDBI	P4 CHQ140 TAKE PRESCRIPTION FOR BIPLR	Data suppressed for respondent confidentialit
P4MEDBIL	P4 CHQ173 HOW LONG TAKING MED - BIPLR	Data suppressed for respondent confidentiality
P4AGEDE	P4 CHQ130 AGE AT 1ST DIAGNS-DEPRSSION	Data suppressed for respondent confidentiality
P4AGEDEU	P4 CHQ131 AGE 1ST DIAGNS-DEPRSS UNIT	Data suppressed for respondent confidentiality
P4AGEDEM	P4 CHQ135A AGE 1ST DIAGNS-DEPRSS MONTH	Data suppressed for respondent confidentiality
P4AGEDEY	P4 CHQ135B AGE 1ST DIAGNS-DEPRSS YEAR	Data suppressed for respondent confidentiality
P4MEDDE	P4 CHQ140 TAKE PRESCRIPTION FOR DEPRSS	Data suppressed for respondent confidentiality
P4MEDDEL	P4 CHQ173 HOW LONG TAKING MED - DEPRSS	Data suppressed for respondent confidentiality
P4AGESPC	P4 CHQ130 AGE AT 1ST DIAGNS-SPEECH	Data suppressed for respondent confidentiality
P4AGESPU	P4 CHQ131 AGE 1ST DIAGNS-SPEECH UNIT	Data suppressed for respondent confidentialit
P4AGESPM	P4 CHQ135A AGE 1ST DIAGNS-SPEECH MONTH	Data suppressed for respondent confidentialit
P4AGESPY	P4 CHQ135B AGE 1ST DIAGNS-SPEECH YEAR	Data suppressed for respondent confidentiality
P4MEDSPC	P4 CHQ140 TAKE PRESCRIPTION FOR SPEECH	Data suppressed for respondent confidentialit
P4MEDSPL	P4 CHQ173 HOW LONG TAKING MED - SPEECH	Data suppressed for respondent confidentialit
P4AGESDF	P4 CHQ130 AGE AT 1ST DIAGNS-SENS DEF	Data suppressed for respondent confidentialit
P4AGESDU	P4 CHQ131 AGE 1ST DIAGNS-SENS DEF UNIT	Data suppressed for respondent confidentialit
P4AGESDM	P4 CHQ135A AGE 1ST DIAGNS-SENS DEF MONTH	Data suppressed for respondent confidentialit
P4AGESDY	P4 CHQ135B AGE 1ST DIAGNS-SENS DEF YEAR	Data suppressed for respondent confidentialit
P4MEDSDF	P4 CHQ140 TAKE PRESCRIPTION FOR SENS DEF	Data suppressed for respondent confidentialit
P4MEDSDL	P4 CHQ173 HOW LONG TAKING MED - SENS DEF	Data suppressed for respondent confidentialit
P4AGEOT	P4 CHQ130 AGE AT 1ST DIAGNS-OTHER	Data suppressed for respondent confidentialit
P4AGEOTU	P4 CHQ131 AGE 1ST DIAGNS-OTH UNIT	Data suppressed for respondent confidentialit
P4AGEOTM	P4 CHQ135A AGE 1ST DIAGNS-OTH MONTH	Data suppressed for respondent confidentialit
P4AGEOTY	P4 CHQ135B AGE 1ST DIAGNS-OTH YEAR	Data suppressed for respondent confidentialit
P4MEDOTL	P4 CHQ173 HOW LONG TAKING MED - OTH	Data suppressed for respondent confidentialit
P4CHEW	P4 CHQ206C COMMUN ISSUE - CHEWING	Data suppressed for respondent confidentialit
P4SWALLO	P4 CHQ206D COMMUN ISSUE - SWALLOW	Data suppressed for respondent confidentialit
P4CLEFT	P4 CHQ206F COMMUN ISSUE- CLEFT	Data suppressed for respondent confidentialit
P4ABNRML	P4 CHQ206G COMMUN ISSUE - ABNORMAL	Data suppressed for respondent confidentialit
P4MALFRM	P4 CHQ206H COMMUN ISSUE - MALFORM EAR	Data suppressed for respondent confidentialit
P4DEHEAR	P4 CHQ216 DESCRIBE HEARING	Data recoded for respondent confidentiality
P4DESCHR	P4 CHQ222 DESCRIBES HEARING IN WORSE EAR	Data suppressed for respondent confidentialit
P4EARWX	P4 CHQ217 HEAR WHISPER IN QUIET ROOM	Data suppressed for respondent confidentialit
P4CLDFRM	P4 CHQ246 HEARING DIAGNOSIS-CANAL DEFORM	Data suppressed for respondent confidentialit
P4EARSCK	P4 CHQ246 HEARING DIAGNOSIS-EAR INFECTN	Data suppressed for respondent confidentialit
P4FLDNER	P4 CHQ246 HEARING DIAGNOSIS-FLUID IN EAR	Data suppressed for respondent confidentialit
P4EARDRM	P4 CHQ246 HEARING DIAGNOSIS-EAR DRUM PRB	Data suppressed for respondent confidentialit
P4ILLNES	P4 CHQ246 HEARING DIAGNOSIS-ILLNESS	Data suppressed for respondent confidentialit

Exhibit 16.	ECLS-K:2011 masked variables, spring 2012 parent interview-Continued
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Variable name	Variable description	Comments
P4CMV	P4 CHQ246 HEARING DIAGNOSIS-CMV	Data suppressed for respondent confidentiality
P4OTOTXC	P4 CHQ246 HEARING DIAGNOSIS-OTOTOXIC	Data suppressed for respondent confidentiality
P4NOISE	P4 CHQ246 HEARING DIAGNOSIS-NOISE EXP	Data suppressed for respondent confidentiality
P4GENES	P4 CHQ246 HEARING DIAGNOSIS-GENETIC	Data suppressed for respondent confidentiality
P4HDINJY	P4 CHQ246 HEARING DIAGNOSIS-HEAD INJURY	Data suppressed for respondent confidentiality
P4SURGRY	P4 CHQ246 HEARING DIAGNOSIS-SURGERY	Data suppressed for respondent confidentiality
P4NRVDF	P4 CHQ246 HEARING DIAGNOSIS-NERVE DEAF	Data suppressed for respondent confidentiality
P4CAPDIS	P4 CHQ246 HEARING DIAGNOSIS-CAP DISORDER	Data suppressed for respondent confidentiality
P4DEAF	P4 CHQ246 HEARING DIAGNOSIS-DEAF	Data suppressed for respondent confidentiality
P4HRLSDK	P4 CHQ246 HEARING DIAGNOSIS-CAUSE UNKNWN	Data suppressed for respondent confidentiality
P4HROTHR	P4 CHQ246 HEARING DIAGNOSIS-OTHER	Data suppressed for respondent confidentiality
P4AWAIT	P4 CHQ246 HEARING DIAGNOSIS-AWAITING EVAL	Data suppressed for respondent confidentiality
P4AGHCU1	P4 CHQ250C AGE 1ST DIAGNS-HEARNG/COM YR	Data suppressed for respondent confidentiality
P4AGHCM1	P4 CHQ250B AGE 1ST DIAGNS-HEARNG/COM MO	Data suppressed for respondent confidentiality
P4AGHCY1	P4 CHQ250C AGE 1ST DIAGNS-HEARNG/COM YR	Data suppressed for respondent confidentiality
P4DTHCM1	P4 CHQ255A L1 COMMUN DIAG DATE - MONTH	Data suppressed for respondent confidentiality
P4DTHCY1	P4 CHQ255B L1 COMMUN DIAG DATE - YEAR	Data suppressed for respondent confidentiality
P4AGHCM2	P4 CHQ250B AGE 1ST DIAGNS-HEARNG/COM MO	Data suppressed for respondent confidentiality
P4DTHCM2	P4 CHQ255A L2 HEARING DIAG DATE - MONTH	Data suppressed for respondent confidentiality
P4DTHCY2	P4 CHQ255B L2 HEARING DIAG DATE - YEAR	Data suppressed for respondent confidentiality
P4WRHAID	P4 CHQ256 WORN HEARING AID	Data suppressed for respondent confidentiality
P41REHAU	P4 CHQ257A 1ST RECOMMEND HEARING AID-UNT	Data suppressed for respondent confidentiality
P41REHAM	P4 CHQ257B 1ST RECOMMEND HEARING AID-MTH	Data suppressed for respondent confidentiality
P41REHAY	P4 CHQ257C 1ST RECOMMEND HEARING AID -YR	Data suppressed for respondent confidentiality
P4AIDSCH	P4 CHQ258 HOW OFTEN HEAR AID IN SCHOOL	Data suppressed for respondent confidentiality
P4AIDWHS	P4 CHQ259 HEAR WHISPER IN QUIET RM W/AID	Data suppressed for respondent confidentiality
P4AIDREG	P4 CHQ260 HEAR NORMAL IN QUIET RM W/AID	Data suppressed for respondent confidentiality
P4AIDSHT	P4 CHQ261 HEAR SHOUT IN QUIET RM W/AID	Data suppressed for respondent confidentiality
P4AIDEAR	P4 CHQ262 HEAR SPEAKS LOUDLY EAR W/AID	Data suppressed for respondent confidentiality
P4DRREHA	P4 CHQ263 DOCTOR RECOMMEND HEAR AID	Data suppressed for respondent confidentiality
P4DR1REU	P4 CHQ264A DOCTOR 1ST RECOM AID - UNIT	Data suppressed for respondent confidentiality
P4DR1REM	P4 CHQ264B DOCTOR 1ST RECOM AID - MONTH	Data suppressed for respondent confidentiality
P4DR1REY	P4 CHQ264C DOCTOR 1ST RECOM AID - YEAR	Data suppressed for respondent confidentiality
P4COCHLE	P4 CHQ270 CHILD HAS COCHLEAR IMPLANT	Data suppressed for respondent confidentiality
P4IMPLNT	P4 CHQ271 YEAR OF IMPLANT	Data suppressed for respondent confidentiality
P4COAGEU	P4 CHQ272A AGE AT IMPLANT - UNIT	Data suppressed for respondent confidentiality
P4COAGEM	P4 CHQ272B AGE AT IMPLANT - MONTH	Data suppressed for respondent confidentiality
P4COAGEY	P4 CHQ272C AGE AT IMPLANT - YEAR	Data suppressed for respondent confidentiality

Exhibit 16.	ECLS-K:2011 masked variable	es, spring 2012 parent interview—Continued
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Variable name	Variable description	Comments
P4LIMPYR	P4 CHQ273 LEFT EAR IMPLANT YEAR	Data suppressed for respondent confidentialit
P4RIMPYR	P4 CHQ274 RIGHT EAR IMPLANT YEAR	Data suppressed for respondent confidentialit
P4ALIMPU	P4 CHQ275A AGE L IMPLANT - UNIT	Data suppressed for respondent confidentialit
P4ALIMPM	P4 CHQ275B AGE L IMPLANT - MONTH	Data suppressed for respondent confidentialit
P4ALIMPY	P4 CHQ275C AGE L IMPLANT - YEAR	Data suppressed for respondent confidentialit
P4ARIMPU	P4 CHQ276A AGE R IMPLANT - UNIT	Data suppressed for respondent confidentialit
P4ARIMPM	P4 CHQ276B AGE R IMPLANT - MONTH	Data suppressed for respondent confidentialit
P4ARIMPY	P4 CHQ276C AGE R IMPLANT - YEAR	Data suppressed for respondent confidentialit
P4COCHWH	P4 CHQ277 HR WHISPER IN QUIET RM W/COCH	Data suppressed for respondent confidentialit
P4COCHRG	P4 CHQ278 HEAR NORMAL IN QUIET RM W/COCH	Data suppressed for respondent confidentialit
P4COCHSH	P4 CHQ279 HEAR SHOUT IN QUIET RM W/COCH	Data suppressed for respondent confidentialit
P4COCHER	P4 CHQ280 HEAR SPEAKS LOUDLY EAR W/COCH	Data suppressed for respondent confidentialit
P4VISCLR	P4 CHQ301 VISION DIAGNOSIS - COLOR BLIND	Data suppressed for respondent confidentialit
P4VISCRS	P4 CHQ301 VISION DIAGNOSIS - CROSS EYED	Data suppressed for respondent confidentialit
P4VISRET	P4 CHQ301 VISION DIAGNOSIS - RETINOPATHY	Data suppressed for respondent confidentialit
P4VISBLN	P4 CHQ301 VISION DIAGNOSIS - BLINDNESS	Data suppressed for respondent confidentialit
P4AWAITG	P4 CHQ301 VISION DIAGNOSIS - AWAITING EVAL	Data suppressed for respondent confidentialit
P4AGVIU1	P4 CHQ305A AGE 1ST DIAGNS-VISION UNIT	Data suppressed for respondent confidentialit
P4AGVIM1	P4 CHQ305B AGE 1ST DIAGNS-VISION MONTH	Data suppressed for respondent confidentialit
P4AGVIY1	P4 CHQ305C AGE 1ST DIAGNS-VISION YEAR	Data suppressed for respondent confidentialit
P4VISMO	P4 CHQ310A MONTH 1ST DIAGNS-VISION	Data suppressed for respondent confidentialit
P4VISYR	P4 CHQ310B YEAR 1ST DIAGNS-VISION	Data suppressed for respondent confidentialit
P4OFTLEN	P4 CHQ312 HOW OFTEN CHD WEAR GLASS/LENS	Data recoded for respondent confidentiality
P4HVELEN	P4 CHQ313 DOES CHILD HAVE GLASSES/LENS	Data suppressed for respondent confidentialit
P4HSCALE	P4 CHQ330 1-5 SCALE OF CHILD'S HEALTH	Data recoded for respondent confidentiality
P4SPCHTH	P4 CHQ345A SPCH/LANG THERAPY BF SCHL YR	Data suppressed for respondent confidentialit
Р4ОССРТН	P4 CHQ345B OCCUPATNL THERAPY BF SCHL YR	Data suppressed for respondent confidentialit
P4PHYSTH	P4 CHQ345C PHYSICAL THERAPY BF SCHL YR	Data suppressed for respondent confidentialit
P4VISSRV	P4 CHQ345D VISION SERVICES BF SCHL YR	Data suppressed for respondent confidentialit
P4HRGSRV	P4 CHQ345E HEARING SERVICES BF SCHL YR	Data suppressed for respondent confidentialit
P4SOCWRK	P4 CHQ345F SOC WORK SERVICES BF SCHL YR	Data suppressed for respondent confidentialit
P4PSYCSV	P4 CHQ345G PSYC SERVICES BF SCHL YR	Data suppressed for respondent confidentialit
P4HOMEVT	P4 CHQ345H HOME VISITS BEFORE SCHL YR	Data suppressed for respondent confidentialit
P4PRNTSP	P4 CHQ345I PARENT SPPT/TRAIN BF SCHL YR	Data suppressed for respondent confidentialit
P4SPCCLS	P4 CHQ345J SPC NEEDS CLASSES BF SCHL YR	Data suppressed for respondent confidentialit
P4PVTUTR	P4 CHQ345K PRVT TUTOR/ SCHLNG BF SCHL YR	Data suppressed for respondent confidentialit
P4BRALLE	P4 CHQ345L BRAILLE INSTRCTION BF SCHL YR	Data suppressed for respondent confidentialit
P4SGNLNG	P4 CHQ345M SIGN LANG INSTR BF SCHL YR	Data suppressed for respondent confidentialit

Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview—Continued

Variable name	Variable description	Comments
P4OTHSRV	P4 CHQ345N OTHER SERVICE BF SCHL YR	Data suppressed for respondent confidentiality
P4AGSVU1	P4 CHQ375AAGE 1ST BEGAN SRVC UNIT	Data suppressed for respondent confidentiality
P4AGSVM1	P4 CHQ375B AGE 1ST BEGAN SRVC MONTH	Data suppressed for respondent confidentiality
P4AGSVY1	P4 CHQ375C AGE 1ST BEGAN SRVC YEAR	Data suppressed for respondent confidentiality
P4SVSMO	P4 CHQ380A MONTH 1ST BEGAN SRVC	Data suppressed for respondent confidentiality
P4SVSYR	P4 CHQ380B YEAR 1ST BEGAN SRVC	Data suppressed for respondent confidentiality
P4LASTYY	P4 CHQ390B LAST RECEIVED SERVICES YEAR	Data suppressed for respondent confidentiality
P4HIG_1_I	P4 PEQ020 PERS 1 HIGHEST EDUCATION LEVEL	Data recoded for respondent confidentiality
P4WKL_1	P4 PEQ060 PERS 1 HRS/WK IN TRAINING	Data recoded for respondent confidentiality
P4HSGEF_1	P4 PEQ062 PERS 1 TRAIN - HIGH SCHOOL/GED	Data suppressed for respondent confidentiality
P4DOCTRT_1	P4 PEQ062 PERS 1 TRAIN - DOCTORATE DEG	Data suppressed for respondent confidentiality
P4PROF_1	P4 PEQ062 PERS 1 TRAIN - PROFESSIONAL DG	Data suppressed for respondent confidentiality
P4HIG_2_I	P4 PEQ020 PERS 2 HIGHEST EDUCATION LEVEL	Data recoded for respondent confidentiality
P4WKL_2	P4 PEQ060 PERS 2 HRS/WK IN TRAINING	Data recoded for respondent confidentiality
P4HSGEF_2	P4 PEQ062 PERS 2 TRAIN - HIGH SCHOOL/GED	Data suppressed for respondent confidentiality
P4DOCTRT_2	P4 PEQ062 PERS 2 TRAIN - DOCTORATE DEG	Data suppressed for respondent confidentiality
P4PROF_2	P4 PEQ062 PERS 2 TRAIN - PROFESSIONAL DG	Data suppressed for respondent confidentiality
P4JOB_1	P4 EMQ040 PERSON 1 NUMBER OF CUR JOBS	Data recoded for respondent confidentiality
P4DOW_1	P4 EMQ080 WHAT PERSON 1 DOING LAST WEEK	Data recoded for respondent confidentiality
P4JOB_2	P4 EMQ040 PERSON 2 NUMBER OF CUR JOBS	Data recoded for respondent confidentiality
P4TINCTH_I	P4 PAQ120 TOTAL HOUSEHOLD INCOME (\$-LOW)	Data suppressed for respondent confidentiality
P4HOUSIT	P4 PAQ140 CURRENT HOUSING SITUATION	Data recoded for respondent confidentiality
P4NUMPLA	P4 CMQ010 NUMBER OF PLACES CHD LIVED	Data recoded for respondent confidentiality
P4BTRSCH	P4 CMQ020 WHY MOVED - BETTER SCHOOL	Data suppressed for respondent confidentiality
P4SAFER	P4 CMQ020 WHY MOVED - SAFER AREA	Data suppressed for respondent confidentiality
P4FORCLS	P4 CMQ020 WHY MOVED - BANK FORECLOSED	Data suppressed for respondent confidentiality
P4EVICT	P4 CMQ020 WHY MOVED - EVICTED	Data suppressed for respondent confidentiality
P4DAMAGE	P4 CMQ020 WHY MOVED - DAMAGED HOUSE	Data suppressed for respondent confidentiality
P4LANGUA	P4 CMQ690 LANGUAGE INTERVIEW CONDUCTED	Data recoded for respondent confidentiality

Exhibit 16.	ECLS-K ·2011	masked variables	spring 2012 i	parent interview—Continued
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Variable name	Variable description	Comments
A4ENROL	A4 A1A # CURRENTLY IN CLASS	Data recoded for respondent confidentiality
A4JOINE	A4 A1B # JOINED CLASS	Data recoded for respondent confidentiality
A4LEFTL	A4 A1C # LEFT CLASS	Data recoded for respondent confidentiality
A4HRSDA	A4 A2 NUMBER OF CLASS HOURS PER DAY	Data recoded for respondent confidentiality
A4DYSWK	A4 A3 NUMBER OF DAYS PER WEEK	Data recoded for respondent confidentiality
A4TPREK	A4 A5A MULTIGRADE HAS PREKINDERGARTEN	Data suppressed for respondent confidentialit
A4TTRNK	A4 A5B MULTIGRADE HAS TRANSITIONAL K	Data suppressed for respondent confidentialit
A4TREGK	A4 A5C MULTIGRADE HAS REGULAR K	Data suppressed for respondent confidentialit
A4TPRE1	A4 A5D MULTIGRADE HAS PRE-1ST GR	Data suppressed for respondent confidentialit
A4T1ST	A4 A5E MULTIGRADE HAS 1ST GR	Data suppressed for respondent confidentiality
A4T2ND	A4 A5F MULTIGRADE HAS 2ND GR	Data suppressed for respondent confidentialit
A4T3RD	A4 A5G MULTIGRADE HAS 3RD GR	Data suppressed for respondent confidentialit
A4T4TH	A4 A5H MULTIGRADE HAS 4TH OR HIGHER	Data suppressed for respondent confidentialit
A44YRSLS	A4 A6A NUM OF 4-YEAR-OLDS/LESS IN CLASS	Data suppressed for respondent confidentialit
A45YROL	A4 A6B HOW MANY 5-YEAR-OLDS IN CLASS	Data suppressed for respondent confidentialit
A46YROL	A4 A6C HOW MANY 6-YEAR-OLDS IN CLASS	Data recoded for respondent confidentiality
A47YROL	A4 A6D HOW MANY 7-YEAR-OLDS IN CLASS	Data recoded for respondent confidentiality
A48YROL	A4 A6E HOW MANY 8-YEAR-OLDS IN CLASS	Data suppressed for respondent confidentialit
A49YROL	A4 A6F HOW MANY 9-YEAR-OLDS IN CLASS	Data suppressed for respondent confidentialit
A410YRMO	A4 A6G NUM OF 10-YEAR-OLD/OLDER IN CLASS	Data suppressed for respondent confidentialit
A4TOTAG	A4 A6H TOTAL CLASS ENROLLMENT (AGE)	Data recoded for respondent confidentiality
A4SHISP	A4 A7A # HISPANIC/LATINO (ANY RACE)	Data recoded for respondent confidentiality
A4SAMINAN	A4 A7B # AMER IND/ALASKA NAT	Data suppressed for respondent confidentialit
A4SASIAN	A4 A7C # ASIAN	Data suppressed for respondent confidentialit
A4SBLACK	A4 A7D # BLACK/AFRICAN AMERICAN	Data recoded for respondent confidentiality
A4SHAWPI	A4 A7E # NATIVE HAWAIIAN/PAC ISL	Data suppressed for respondent confidentialit
A4SWHITE	A4 A7F # WHITES	Data recoded for respondent confidentiality
A4SMULTR	A4 A7G # TWO OR MORE RACES	Data suppressed for respondent confidentialit
A4TOTRA	A4 A7H TOTAL CLASS ENROLLMENT (RACES)	Data recoded for respondent confidentiality
A4BOYS	A4 A8A NUMBER OF BOYS IN CLASS	Data suppressed for respondent confidentialit
A4GIRLS	A4 A8B NUMBER OF GIRLS IN CLASS	Data recoded for respondent confidentiality
A4TOTGN	A4 A8C TOTAL CLASS ENROLLMENT (GENDER)	Data recoded for respondent confidentiality
A4REPK	A4 A9 NUM CHILDREN REPEATING THIS GRADE	Data recoded for respondent confidentiality
A4GIFT	A4 A10A # CLASSIFIED AS GFTED/TALENTED	Data recoded for respondent confidentiality
A4PRTGF	A4 A10B # TAKE PART IN GIFTED/TALENTED	Data recoded for respondent confidentiality
A4RDBLW	A4 A10C # READ SKLS BELOW GRADE LEVEL	Data recoded for respondent confidentiality
A4RDONL	A4 A10D # READ SKLS ON GRADE LEVEL	Data suppressed for respondent confidentialit

Exhibit 17. ECLS-K:2011 masked variables, spring 2012 teacher-level teacher questionnaire

Variable name	Variable description	Comments
A4RDABV	A4 A10E # READ SKLS ABOVE GRADE LEVEL	Data recoded for respondent confidentiality
A4MTHBL	A4 A10F # MATH SKILLS BELOW GRADE LVL	Data recoded for respondent confidentiality
A4MTHONL	A4 A10G # MATH SKILLS ABOUT ON GRADE LVL	Data suppressed for respondent confidentiality
A4MTHABV	A4 A10H # MATH SKILLS ABOVE GRADE LVL	Data recoded for respondent confidentiality
A4TARDY	A4 A10I # TARDY ON AVERAGE DAY	Data recoded for respondent confidentiality
A4ABSEN	A4 A10J # ABSENT ON AVERAGE DAY	Data recoded for respondent confidentiality
A4DISAB	A4 A12 # WITH DIAGNOSED DISABILITY	Data recoded for respondent confidentiality
A4DSRV	A4 A13 SPECIAL DISABILITY SERVICES	Data recoded for respondent confidentiality
A4MHLP	A4 A14 NEED MORE HELP	Data recoded for respondent confidentiality
A4IFRNIN	A4 A17C FRENCH USED FOR INSTRUCTION	Data suppressed for respondent confidentiality
A4AVTNIN	A4 A17D VIETNAMESE USED FOR INSTRUCTION	Data suppressed for respondent confidentiality
A4JPNIN	A4 A17F JAPANESE USED FOR INSTRUCTION	Data suppressed for respondent confidentiality
A4KRNIN	A4 A17G KOREAN USED FOR INSTRUCTION	Data suppressed for respondent confidentiality
A4FILIN	A4 A17H FILIPINO LANG USED FOR INSTRUCT	Data suppressed for respondent confidentiality
A4ARBIN	A4 A17I ARABIC USED FOR INSTRUCTION	Data suppressed for respondent confidentiality
A4INDIN	A4 A17J ASN IND SUBCON LNG USED INSTRUCT	Data suppressed for respondent confidentiality
A4SIGNL	A4 A17K SIGN LANG USED FOR INSTRUC	Data suppressed for respondent confidentiality
A4OTHIN	A4 A17L OTHER LANG USED FOR INSTRUCTION	Data suppressed for respondent confidentiality
A4BKSFRN	A4 A18C BOOKS IN FRENCH	Data suppressed for respondent confidentiality
A4BKSVIT	A4 A18D BOOKS IN VIETNAMESE	Data suppressed for respondent confidentiality
A4BKSCHN	A4 A18E BOOKS IN A CHINESE LANGUAGE	Data suppressed for respondent confidentiality
A4BKSJAP	A4 A18F BOOKS IN JAPANESE	Data suppressed for respondent confidentiality
A4BKSKOR	A4 A18G BOOKS IN KOREAN	Data suppressed for respondent confidentiality
A4BKSFIL	A4 A18H BOOKS IN A FILIPINO LANGUAGE	Data suppressed for respondent confidentiality
A4BKSARB	A4 A18I BOOKS IN ARABIC	Data suppressed for respondent confidentiality
A4BKINDN	A4 A18J BOOKS IN ASN INDIAN SUBCON LANG	Data suppressed for respondent confidentiality
A4BKSOTH	A4 A18L BOOKS IN OTHER LANGUAGE	Data suppressed for respondent confidentiality
A4SIGNS	A4 A20I STUDENTS USE SIGN LANG	Data suppressed for respondent confidentiality
A4CCREOL	A4 A20JB STUDENTS SPEAK CREOLE LNG	Data suppressed for respondent confidentiality
A4CGRMN	A4 A20JD STUDENTS SPEAK GERMAN	Data suppressed for respondent confidentiality
A4CPOLSH	A4 A20JE STUDENTS SPEAK POLISH	Data suppressed for respondent confidentiality
A4CHMONG	A4 A20JH STUDENTS SPEAK HMONG	Data suppressed for respondent confidentiality
A4NMELL	A4 A22 NUMBER ELL STUDENTS IN CLASS	Data recoded for respondent confidentiality
A4NOELL	A4 A23A ELL STUDENTS GET NO ELL INST	Data recoded for respondent confidentiality
A4ELLRE	A4 A23B ELL STUDENTS GET IN-CLASS INS	Data recoded for respondent confidentiality
A4ELLOU	A4 A23C ELL STUDENTS GET OUTSIDE INS	Data recoded for respondent confidentiality
A4TVTNM	A4 A25C TCHR SPEAKS VIETNAMESE	Data suppressed for respondent confidentiality

Exhibit 17. ECLS-K:2011 masked variables, spring 2012 teacher-level teacher questionnaire— Continued

Variable name	Variable description	Comments
A4TCHNS	A4 A25D TCHR SPEAKS CHINESE	Data suppressed for respondent confidentiality
A4TJPNS	A4 A25E TCHR SPEAKS JAPANESE	Data suppressed for respondent confidentiality
A4TKRN	A4 A25F TCHR SPEAKS KOREAN	Data suppressed for respondent confidentiality
A4TFLPN	A4 A25G TCHR SPEAKS A FILIPINO LNG	Data suppressed for respondent confidentiality
A4ARBIC	A4 A25H TCHR SPEAKS ARABIC LNG	Data suppressed for respondent confidentiality
A4TINDN	A4 A25I TCHR SPEAKS ASIAN IND SUBCON LNG	Data suppressed for respondent confidentiality
A4TSIGN	A4 A25J TCHR USES SIGN LANGUAGE	Data suppressed for respondent confidentiality
A4OTHLG	A4 A25K TCHR SPEAKS OTHER LANGUAGE	Data suppressed for respondent confidentiality
A4TAFRCN	A4 A25KA TCHR SPEAKS AN AFRICAN LNG	Data suppressed for respondent confidentiality
A4TCREOL	A4 A25KB TCHR SPEAKS CREOLE LNG	Data suppressed for respondent confidentiality
A4TFRNCH	A4 A25KC TCHR SPEAKS FRENCH	Data suppressed for respondent confidentiality
A4TGRMN	A4 A25KD TCHR SPEAKS GERMAN	Data suppressed for respondent confidentiality
A4TPOLSH	A4 A25KE TCHR SPEAKS POLISH	Data suppressed for respondent confidentiality
A4TPORTG	A4 A25KF TCHR SPEAKS PORTUGUESE	Data suppressed for respondent confidentiality
A4TRUSSN	A4 A25KG TCHR SPEAKS RUSSIAN	Data suppressed for respondent confidentiality
A4THMONG	A4 A25KH TCHR SPEAKS HMONG	Data suppressed for respondent confidentiality
A4NUMRD	A4 B6A NUMBER OF READING GROUPS	Data recoded for respondent confidentiality
A4NUMMTH	A4 B6B NUMBER OF MATH GROUPS	Data recoded for respondent confidentiality
A4DYRECS	A4 B8 DAYS PER WEEK HAVE RECESS	Data recoded for respondent confidentiality
A4LUNCH	A4 B10A TIME FOR LUNCH	Data recoded for respondent confidentiality
A4TPLYIN	A4 B10B TIME FOR FREE PLAY INDOORS	Data recoded for respondent confidentiality
A4REGWRK	A4 B12A REGULAR AIDE WORKS W/CHILDREN	Data recoded for respondent confidentiality
A4SPEDWK	A4 B12B SPECIAL AIDE WORKS W/CHILDREN	Data recoded for respondent confidentiality
A4ESLWRK	A4 B12C ESL AIDE WORKS W/CHILDREN	Data recoded for respondent confidentiality
A4VOLIT	A4 B12D VOLUNTEER WORKS W/CHILDREN	Data recoded for respondent confidentiality
A4DEVINCL	A4 B14A # DEVICES LOCATED IN CLASS	Data recoded for respondent confidentiality
A4INTINCL	A4 B14A # INTERNET ACCESS IN CLASS	Data recoded for respondent confidentiality
A4DEVTOCL	A4 B14B # DEVICES CAN BE BROUGHT TO CLSS	Data recoded for respondent confidentiality
A4INTTOCL	A4 B14B # INTERNET ACCESS BRGHT TO CLASS	Data recoded for respondent confidentiality
A4SNTHME	A4 D3A TIMES SENT HOME NEWSLETTERS ETC	Data recoded for respondent confidentiality
A4TLKPAR	A4 D3E TIMES TALKED TO PARENTS ON PHONE	Data recoded for respondent confidentiality
A4TGEND	A4 H1 TEACHER'S GENDER	Data suppressed for respondent confidentiality
A4YRBORN	A4 H2 TEACHER'S YEAR OF BIRTH	Data recoded for respondent confidentiality
A4HISP	A4 H3 HISPANIC OR LATINO (ANY RACE)	Data suppressed for respondent confidentiality
A4AMINAN	A4 H4 AMER IND/ALASKA NAT	Data suppressed for respondent confidentiality
A4ASIAN	A4 H4 ASIAN	Data suppressed for respondent confidentiality
A4BLACK	A4 H4 BLACK/AFRICAN AMERICAN	Data suppressed for respondent confidentiality

Exhibit 17. ECLS-K:2011 masked variables, spring 2012 teacher-level teacher questionnaire— Continued

Variable name	Variable description	Comments
A4HAWPI	A4 H4 NATIVE HAWAIIAN/PAC ISL	Data suppressed for respondent confidentiality
A4WHITE	A4 H4 WHITE	Data suppressed for respondent confidentiality
A4HGHSTD	A4 H5 HIGHEST ED LEVEL TEACHER ACHIEVED	Data recoded for respondent confidentiality
A4YRSPRE	A4 H7A YRS TEACHER TAUGHT PRSCH/HEAD ST	Data suppressed for respondent confidentiality
A4YRSKIN	A4 H7B YRS TEACHER TAUGHT KINDERGARTEN	Data suppressed for respondent confidentiality
A4YRSFST	A4 H7C YRS TEACHER TAUGHT FIRST GRADE	Data suppressed for respondent confidentiality
A4YRS2T5	A4 H7D YRS TEACHER TAUGHT 2 TO 5 GRADE	Data suppressed for respondent confidentiality
A4YRS6PL	A4 H7E YRS TEACHER TAUGHT 6 GRADE OR UP	Data suppressed for respondent confidentiality
A4YRSESL	A4 H7F YRS TEACHER TAUGHT ESL	Data suppressed for respondent confidentiality
A4YRSBIL	A4 H7G YRS TEACHER TAUGHT BILINGUAL ED	Data suppressed for respondent confidentiality
A4YRSDUL	A4 H7H YRS TEACHER TAUGHT DUAL LANG ED	Data suppressed for respondent confidentiality
A4YRSSPE	A4 H7I YRS TEACHER TAUGHT SPECIAL ED	Data suppressed for respondent confidentiality
A4YRSPE	A4 H7J YRS TEACHER TAUGHT PHYSICAL ED	Data suppressed for respondent confidentiality
A4YRSART	A4 H7K YRS TEACHER TAUGHT ART OR MUSIC	Data suppressed for respondent confidentiality
A4YRSCH	A4 H8 YRS TEACHER TAUGHT AT THIS SCHOOL	Data recoded for respondent confidentiality
A4YRSTCH	A4 H9 NUMBER YEARS BEEN SCHOOL TEACHER	Data recoded for respondent confidentiality
A4NATEXM	A4 H10 TAKEN EXAM FOR NATIONAL BOARD	Data recoded for respondent confidentiality
A4NODEG	A4 H11 NO DEGREE OBTAINED	Data suppressed for respondent confidentialit
A4DEGERL	A4 H12A UNDER GRAD/EARLY CHILDHOOD ED	Data suppressed for respondent confidentialit
A4DEGELM	A4 H12B UNDER GRAD/ELEMENTARY ED	Data suppressed for respondent confidentialit
A4DEGSPE	A4 H12C UNDER GRAD/SPECIAL ED	Data suppressed for respondent confidentialit
A4DEGOTH	A4 H12D UNDER GRAD/OTHER ED MAJOR	Data suppressed for respondent confidentialit
A4DEGNON	A4 H12E UNDER GRAD/NON ED MAJOR	Data suppressed for respondent confidentialit
A4GRDERL	A4 H13A GRAD DEG/EARLY CHILDHOOD ED	Data suppressed for respondent confidentialit
A4GRDELM	A4 H13B GRAD DEG/ELEMENTARY ED	Data suppressed for respondent confidentiality
A4GRDSPE	A4 H13C GRAD DEG/SPECIAL ED	Data suppressed for respondent confidentialit
A4GRDOTH	A4 H13D GRAD DEG/OTHER ED MAJOR	Data suppressed for respondent confidentialit
A4GRDNON	A4 H13E GRAD DEG/NON ED MAJOR	Data suppressed for respondent confidentialit
A4ELEMCT	A4 H17A CERTIFICATION: ELEMENTARY ED	Data suppressed for respondent confidentialit
A4ERLYCT	A4 H17B CERTIFICATION: EARLY CHILD ED	Data suppressed for respondent confidentialit
A4SPECCT	A4 H17C CERTIFICATION: SPECIAL EDUCATION	Data suppressed for respondent confidentialit
A4ESLCT	A4 H17D CERTIFICATION: ENG AS SECND LNG	Data suppressed for respondent confidentiality
A4OTHRCT	A4 H17E CERTIFICATION: OTHER	Data suppressed for respondent confidentiality

Exhibit 17. ECLS-K:2011 masked variables, spring 2012 teacher-level teacher questionnaire— Continued

Variable name	Variable description	Comments
T3SUMMSC	T3 S3F SUMMER ASSGN INC - SCI PROJ	Data suppressed for respondent confidentiality
T4LNGTM	T4 S2 LENGTH OF TIME IN CLASSROOM	Data recoded for respondent confidentiality
T4BH2WK	T4 S4 FELL BEHIND 2 OR MORE WEEKS	Data recoded for respondent confidentiality
T4ELLPRB	T4 S5 FELL BEHIND - LANGUAGE BARRIER	Data suppressed for respondent confidentiality
T4FOCUS	T4 S5 FELL BEHIND - DISTRACTD/LACK FOCUS	Data suppressed for respondent confidentiality
T4WKEND	T4 S7C INSTR SERVICES WEEKENDS	Data suppressed for respondent confidentiality
T4CHRDGP	T4 S20 CHILDS PLACEMENT IN READING GRP	Data recoded for respondent confidentiality
T4CHMTGP	T4 S22 CHDS PLACEMENT IN MATHEMATICS GRP	Data recoded for respondent confidentiality
T4KGRADE	T4K S1 GRADE CHILD ENROLLED	Data suppressed for respondent confidentiality
T4KLNGTM	T4K S2 LENGTH OF TIME IN CLASSROOM	Data suppressed for respondent confidentiality
T4KTTABS	T4K S3 TOTAL NUMBER OF ABSENCES	Data recoded for respondent confidentiality
T4KBH2WK	T4K S4 FELL BEHIND 2 OR MORE WEEKS	Data suppressed for respondent confidentialit
T4KHEALTH	T4K S5A FELL BEHIND - HEALTH PROBLEM	Data suppressed for respondent confidentialit
T4KDISCIP	T4K S5B FELL BEHIND - DISCIPLINE PROBLEM	Data suppressed for respondent confidentialit
<b>F4KEFFORT</b>	T4K S5C FELL BEHIND - LACK OF EFFORT	Data suppressed for respondent confidentialit
T4KDISORG	T4K S5D FELL BEHIND - DISORGANIZED	Data suppressed for respondent confidentialit
F4KSKILL	T4K S5E FELL BEHIND - LACK OF SKILLS	Data suppressed for respondent confidentialit
T4KFRQABS	T4K S5F FELL BEHIND - FREQUENT ABSENCES	Data suppressed for respondent confidentialit
T4KEMOPRB	T4K S5G FELL BEHIND - EMOTIONAL/FAM PROB	Data suppressed for respondent confidentialit
T4KOTHRES	T4K S5H FELL BEHIND - OTHER REASON	Data suppressed for respondent confidentialit
T4KELLPRB	T4K S5 FELL BEHIND - LANGUAGE BARRIER	Data suppressed for respondent confidentialit
<b>F4KFOCUS</b>	T4K S5 FELL BEHIND - DISTRACTD/LACK FOCUS	Data suppressed for respondent confidentialit
F4KGFTRD	T4K S6E GIFTED PROGRAM IN READ/LANG ARTS	Data suppressed for respondent confidentialit
T4KGFTMTH	T4K S6F GIFTED PROGRAM IN MATHEMATICS	Data suppressed for respondent confidentialit
<b>F4KBEFORE</b>	T4K S7A INSTR SERVICES BEFORE SCHOOL	Data suppressed for respondent confidentialit
F4KWKEND	T4K S7C INSTR SERVICES WEEKENDS	Data suppressed for respondent confidentialit
T4KENNAT	T4K S8 ENGLISH NATIVE LANGUAGE	Data recoded for respondent confidentiality
T4KPRGES	T4K S9 CHILD IN PROG TO LEARN ENG SKILLS	Data suppressed for respondent confidentialit
F4KLNGINT	T4K S10 LANGUAGE INSTRUCTION	Data suppressed for respondent confidentialit
T4KSPINS	T4K S11A DAYS RECEIVE SPEC LANG INSTRUCT	Data suppressed for respondent confidentialit
T4KTRCIN	T4K S11B TIMES PER DAY REC SPEC LNG INS	Data suppressed for respondent confidentialit
T4KHRCIN	T4K S12 TIMES INSTR IN NATIVE LANG	Data suppressed for respondent confidentialit
T4KACCOM	T4K S15 SPECIAL TEST ACCOMMODATIONS	Data recoded for respondent confidentiality

Exhibit 18. ECLS-K:2011 masked variables, fall 2011 and spring 2012 child-level teacher questionnaires

Variable name	Variable description	Reason for suppression
S4NUMDAY	S4 A1 NUMBER OF DAYS MUST ATTEND	Data recoded for respondent confidentiality
S4SYRSMM	S4 A2A SCH START MONTH	Data recoded for respondent confidentiality
S4SYRSDD	S4 A2B SCH START DAY	Data suppressed for respondent confidentiality
S4SYREMM	S4 A2D SCH END MONTH	Data recoded for respondent confidentiality
S4SYREDD	S4 A2E SCH END DAY	Data suppressed for respondent confidentiality
S4ANUMCH_I	S4 A3A # ENROLLED AROUND OCTOBER 1 2011	Data recoded for respondent confidentiality
S4BNUMCH	S4 A3B # ENROLLED SINCE OCTOBER 1 2011	Data recoded for respondent confidentiality
S4CNUMCH	S4 A3C # LEFT SINCE OCT 1 2011	Data recoded for respondent confidentiality
S4ADA	S4 A4A % AVERAGE DAILY ATTENDANCE FOR YR	Data recoded for respondent confidentiality
S4ADANUM	S4 A4B AVERAGE NUMBER ATTENDING DAILY	Data suppressed for respondent confidentiality
S4UNGRAD	S4N A5 GRADE LEVEL-UNGRADED	Data suppressed for respondent confidentiality
S4TRANSK	S4N A5 GRADE LEVEL-TRANSITIONAL K	Data suppressed for respondent confidentiality
S4PRE1	S4N A5 GRADE LEVEL-PREFIRST/TRANS 1ST	Data suppressed for respondent confidentiality
S4GRADE1	S4N A5 GRADE LEVEL-FIRST GRADE	Data suppressed for respondent confidentiality
S4SECOND	S4N A5 GRADE LEVEL-SECOND GRADE	Data suppressed for respondent confidentiality
S4NINTH	S4N A5 GRADE LEVEL-NINTH GRADE	Data suppressed for respondent confidentiality
S4TENTH	S4N A5 GRADE LEVEL-TENTH GRADE	Data suppressed for respondent confidentiality
S411TH	S4N A5 GRADE LEVEL-ELEVENTH GRADE	Data suppressed for respondent confidentiality
S412TH	S4N A5 GRADE LEVEL-TWELFTH GRADE	Data suppressed for respondent confidentiality
S4MAGSKL	S4N A6 PUBLIC MAGNET SCHOOL	Data suppressed for respondent confidentiality
S4CHRSKL	S4N A6 CHARTER SCHOOL	Data suppressed for respondent confidentiality
S4CATHOL	S4N A6 CATHOLIC SCHOOL	Data suppressed for respondent confidentiality
S4DIOCSK	S4N A6 CATHOLIC SCHOOL - DIOCESAN	Data suppressed for respondent confidentiality
S4PARSKL	S4N A6 CATHOLIC SCHOOL - PARISH	Data suppressed for respondent confidentiality
S4PRVORS	S4N A6 CATHOLIC SCHOOL - PRIVATE ORDER	Data suppressed for respondent confidentiality
S4OTHREL	S4N A6 PRIVATE SCHOOL RELIG - NOT CATH	Data suppressed for respondent confidentiality
S4OTNAIS	S4N A6 PRIVATE SCHOOL NAIS - NOT RELG	Data suppressed for respondent confidentiality
S4OTHRNO	S4N A6 OTHER PRVT, NO RELG OR NAIS	Data suppressed for respondent confidentiality
S4SPDSCH	S4N A6 SPECIAL ED SCHOOL	Data suppressed for respondent confidentiality
S4YROUND	S4N A6 YEAR-ROUND SCHOOL	Data suppressed for respondent confidentiality
S4YCHART	S4N A7 YR BECAME CHARTER SCHOOL	Data suppressed for respondent confidentiality
S4CHARPN	S4N A8 IS CHARTER PROFIT OR NONPROF	Data suppressed for respondent confidentiality
S4HISPNM	S4 A9A # HISPANIC/LATINO	Data suppressed for respondent confidentiality
S4AIANPT	S4 A9B % AMER IND/ALASKA NAT	Data recoded for respondent confidentiality
S4AIANNM	S4 A9B # AMER IND/ALASKA NAT	Data suppressed for respondent confidentiality
S4ASIAPT	S4 A9C % ASIAN	Data recoded for respondent confidentiality
S4ASIANM	S4 A9C # ASIAN	Data suppressed for respondent confidentiality

Exhibit 19. ECLS-K:2011 masked variables, spring 2012 school administrator questionnaire

Variable name	Variable description	Reason for suppression
S4BLACPT	S4 A9D % BLACK/AFRICAN AMERICAN	Data recoded for respondent confidentiality
S4BLACNM	S4 A9D # BLACK/AFRICAN AMERICAN	Data suppressed for respondent confidentiality
S4HAWPPT	S4 A9E % HAWAIIAN/PAC ISL	Data recoded for respondent confidentiality
S4HAWPNM	S4 A9E # HAWAIIAN/PAC ISL	Data suppressed for respondent confidentiality
S4WHITNM	S4 A9F # WHITE	Data suppressed for respondent confidentiality
S4MULTPT	S4 A9G % TWO OR MORE RACE	Data recoded for respondent confidentiality
S4MULTNM	S4 A9G # TWO OR MORE RACE	Data suppressed for respondent confidentiality
S4TOTENR	S4 A9H RPTD TOTAL SCHOOL ENROLLMENT	Data recoded for respondent confidentiality
S4OTNEED	S4 A11A PERCENT SENT W/SPECIAL NEED	Data recoded for respondent confidentiality
S4PTRAYP	S4 A11B PCT PREV SCH NOT MEET AYP	Data recoded for respondent confidentiality
S4PUBCHO	S4 A11C PCT ATTEND UNDER PUB SCH CHOICE	Data recoded for respondent confidentiality
S4NOCUTO	S4 A13A NO CUTOFF DATE TO TURN FIVE	Data suppressed for respondent confidentiality
S4MMFIVE	S4 A13B CUTOFF MONTH TO TURN FIVE	Data suppressed for respondent confidentiality
S4DDFIVE	S4 A13C CUTOFF DAY TO TURN FIVE	Data suppressed for respondent confidentiality
S4YYFIVE	S4 A13D CUTOFF YEAR TO TURN FIVE	Data suppressed for respondent confidentiality
S4AMBUSFHH	S4N A14 TIME FIRST BUS AM - HOURS	Data recoded for respondent confidentiality
S4AMBUSLHH	S4N A15 TIME LAST BUS AM - HOURS	Data recoded for respondent confidentiality
S4BRKSTRHH	S4 A19A1 TIME BREAKFAST START - HR	Data recoded for respondent confidentiality
S4BRKENDHH	S4 A19B1 TIME BREAKFAST END - HR	Data recoded for respondent confidentiality
S4BRKLOC	S4 A20 WHERE BREAKFAST SERVED	Data recoded for respondent confidentiality
S4PDBRK	S4 A22A # PAID BREAKFASTS SERVED - OCT	Data recoded for respondent confidentiality
S4FREEBK	S4 A22B # FREE BREAKFASTS SERVED - OCT	Data recoded for respondent confidentiality
S4RDCBRK	S4 A22C # RED PRICE BREAKFSTS SVD - OCT	Data recoded for respondent confidentiality
S4FLPRBK	S4 A23 PRICE OF FULL PRICED BREAKFAST	Data recoded for respondent confidentiality
S4RDPRBK	S4 A24 PRICE OF REDUCED PRICE BREAKFAST	Data recoded for respondent confidentiality
S4TOPDLU	S4 A26A # PAID LUNCHES SERVED - OCT	Data recoded for respondent confidentiality
S4TOFRLU	S4 A26B # FREE LUNCHES SERVED - OCT	Data recoded for respondent confidentiality
S4TORDLU	S4 A26C # RED PRICE LUNCHES SERVED - OCT	Data recoded for respondent confidentiality
S4FLPRLU	S4 A27 PRICE OF FULL PRICED LUNCH	Data recoded for respondent confidentiality
S4RDPRLU	S4 A28 PRICE OF REDUCED PRICE LUNCH	Data recoded for respondent confidentiality
S4NMFRM_I	S4 A29A # CHILDREN APPROVED FREE LUNCH	Data recoded for respondent confidentiality
S4NMRDM_I	S4 A29B # CHILDREN APPROVED RED LUNCH	Data recoded for respondent confidentiality
S4CHLDNM	S4N B2 # OF CHILDREN SITE ACCOMMODATES	Data recoded for respondent confidentiality
S4RPTCRD	S4 C3B FREQ OF REPORT CARDS	Data recoded for respondent confidentiality
S4PTCONF	S4 C3D FREQ OF PARENT-TCHR CONFERENCE	Data recoded for respondent confidentiality
S4INVITE	S4 C3E FREQ OF PERFORMANCES FOR PARENTS	Data recoded for respondent confidentiality
S4DETECT	S4N C7B SCHOOL METAL DETECTORS	Data suppressed for respondent confidentiality

Exhibit 19. ECLS-K:2011 masked variables, spring 2012 school administrator questionnaire— Continued

Variable name	Variable description	Reason for suppression
S4NMRETK	S4 D3 NUMBER RETAINED IN K LAST YEAR	Data recoded for respondent confidentiality
S4NMRET1	S4 D4 NUMBER RETAINED GRADE1	Data recoded for respondent confidentiality
S4TOTELL	S4 E2A PCT OF STUDENTS WHO ARE ELL	Data recoded for respondent confidentiality
S4TOTFRS	S4 E2B PCT OF 1ST GRADERS WHO ARE ELL	Data recoded for respondent confidentiality
S4ESLREG	S4 E3A1 PCT 1 GR RECEIVE ESL IN REG CLAS	Data recoded for respondent confidentiality
S4ESLPLL	S4 E3A2 PCT 1 GR RECEIVE ESL IN PULLOUT	Data recoded for respondent confidentiality
S4BILINS	S4 E3B1 PCT 1 GR RECEIVE BILING IN REG C	Data recoded for respondent confidentiality
S4BILPLL	S4 E3B2 PCT 1 GR RECEIVE BILING IN PULLO	Data recoded for respondent confidentiality
S4DUALIN	S4 E3C1 PCT 1 GR RECEIVE DUAL-LANG IN RE	Data recoded for respondent confidentiality
S4NEIEPY	S4 E5 NEW EVAL FOR IEP THIS YEAR	Data recoded for respondent confidentiality
S4NEEIEP	S4 E6 NEW EVAL ELIGIBLE FOR IEP	Data recoded for respondent confidentiality
S4SPDPCT	S4 E8A1 % STUDENTS IN SPECIAL ED 1ST GR	Data recoded for respondent confidentiality
S4504STU	S4 E8B1 % STUDENTS W/ 504 PLAN 1ST GRADE	Data recoded for respondent confidentiality
S4RDINOG	S4 E8C3 RDG INSTRUCT NOT OFFERED AT SCH	Data suppressed for respondent confidentiality
S4RDIPCT	S4 E8C1 % STUDNT GETTING INSTRUCTION RDG	Data recoded for respondent confidentiality
S4MTIPCT	S4 E8D1 % STUDNT GETTING INSTRUCTION MTH	Data recoded for respondent confidentiality
S4GIFPCT	S4 E8E1 % STUDENTS IN G/T PROGRAM	Data recoded for respondent confidentiality
S4RGTCHF	S4 G1A1 # REG CLASSROOM TCHR-FULL	Data recoded for respondent confidentiality
S4RGTCHP	S4 G1A2 # REG CLASSROOM TCHR-PART	Data recoded for respondent confidentiality
S4ESLF	S4 G1B1 # ESL/BILINGUAL TCHR-FULL	Data recoded for respondent confidentiality
S4ESLP	S4 G1B2 # ESL/BILINGUAL TCHR-PART	Data recoded for respondent confidentiality
S4ARTSTF	S4 G1C1 # DRAMA MUSIC ART TCHR-FULL	Data recoded for respondent confidentiality
S4ARTSTP	S4 G1C2 # DRAMA MUSIC ART TCHR-PART	Data recoded for respondent confidentiality
S4GYMTF	S4 G1D1 # GYM/HEALTH TEACHER-FULL	Data recoded for respondent confidentiality
S4GYMTP	S4 G1D2 # GYM/HEALTH TEACHER-PART	Data recoded for respondent confidentiality
S4SPEDF	S4 G1E1 # SPECIAL ED TCHR-FULL	Data recoded for respondent confidentiality
S4SPEDP	S4 G1E2 # SPECIAL ED TCHR-PART	Data recoded for respondent confidentiality
S4GIFTF	S4 G1F1 # GIFTED/TALENTED TCHR-FULL	Data recoded for respondent confidentiality
S4GIFTP	S4 G1F2 # GIFTED/TALENTED TCHR-PART	Data recoded for respondent confidentiality
S4RDTCHFL	S4 G1G2 # READING TCHR/SPECIAL/INTV-FULL	Data recoded for respondent confidentiality
S4RDTCHPT	S4 G1G2 # READING TCHR/SPECIAL/INTV-PART	Data recoded for respondent confidentiality
S4MATHF	S4 G1H1 # MATH TCHR/SPECIAL/INTV-FULL	Data recoded for respondent confidentiality
S4MATHP	S4 G1H2 # MATH TCHR/SPECIAL/INTV-PART	Data recoded for respondent confidentiality
S4NURSF	S4 G111 # SCH NURSE HEALTH PROF-FULL	Data recoded for respondent confidentiality
S4PSYCF	S4 G1J1 # SCH PSYCH/SOCIAL WORKER-FULL	Data recoded for respondent confidentiality
S4PSYCP	S4 G1J2 # SCH PSYCH/SOCIAL WORKER-PART	Data recoded for respondent confidentiality
S4GDCONF	S4 G1K1 # GUIDANCE COUNSELOR-FULL	Data recoded for respondent confidentiality

Exhibit 19. ECLS-K:2011 masked variables, spring 2012 school administrator questionnaire— Continued

Variable name	Variable description	Reason for suppression
S4GDCONP	S4 G1K2 # GUIDANCE COUNSELOR-PART	Data recoded for respondent confidentiality
S4PARAF	S4 G1L1 # PARAPROFESSIONALS-FULL	Data recoded for respondent confidentiality
S4PARAP	S4 G1L2 # PARAPROFESSIONALS-PART	Data recoded for respondent confidentiality
S4LIBRF	S4 G1M1 # LIBRARIANS-FULL	Data recoded for respondent confidentiality
S4LIBRP	S4 G1M2 # LIBRARIANS-PART	Data recoded for respondent confidentiality
S4CTECHF	S4 G1N1 # COMPUTER/TECH TCHR/STAFF-FULL	Data recoded for respondent confidentiality
S4CTECHP	S4 G1N2 # COMPUTER/TECH TCHR/STAFF-PART	Data recoded for respondent confidentiality
S4TEBEGN	S4 G3A # NEW TEACHER SINCE OCT 1 2011	Data recoded for respondent confidentiality
S4TELEFT	S4 G3B # TEACHERS LEFT SINCE OCT 1 2011	Data recoded for respondent confidentiality
S4TCH1SY	S4 G3C # OF 1ST YEAR TEACHERS	Data recoded for respondent confidentiality
S4TCH1YH	S4 G3D # OF TEACHERS HERE FOR 1ST YR	Data recoded for respondent confidentiality
S4HISPP2	S4 G4A % HISPANIC/LAT TCHRS (ANY RACE)	Data recoded for respondent confidentiality
S4HISPN2	S4 G4A # HISPANIC/LAT TCHRS (ANY RACE)	Data suppressed for respondent confidentialit
S4AIANP2	S4 G4B % AMER IND/ALASKA NAT TEACHERS	Data recoded for respondent confidentiality
S4AIANN2	S4 G4B # AMER IND/ALASKA NAT TEACHERS	Data suppressed for respondent confidentialit
S4ASIAP2	S4 G4C % ASIAN TEACHERS	Data recoded for respondent confidentiality
S4ASIAN2	S4 G4C # ASIAN TEACHERS	Data suppressed for respondent confidentialit
S4BLACP2	S4 G4D % BLACK TEACHERS	Data recoded for respondent confidentiality
S4BLACN2	S4 G4D # BLACK TEACHERS	Data suppressed for respondent confidentialit
S4HAWPP2	S4 G4E % HAWAIIAN TEACHERS	Data recoded for respondent confidentiality
S4HAWPN2	S4 G4E # HAWAIIAN TEACHERS	Data suppressed for respondent confidentialit
S4WHITP2	S4 G4F % WHITE TEACHERS	Data recoded for respondent confidentiality
S4WHITN2	S4 G4F # WHITE TEACHERS	Data suppressed for respondent confidentialit
S4MULTP2	S4 G4G % 2+ RACE TEACHERS	Data recoded for respondent confidentiality
S4MULTN2	S4 G4G # 2+ RACE TEACHERS	Data suppressed for respondent confidentialit
S4NUMTOT	S4 G4H TOTAL # OF TEACHERS	Data recoded for respondent confidentiality
S4RYYEMP	S4 G8A # OF YRS RESPONDENT AT SCHOOL	Data suppressed for respondent confidentialit
S4RMMEMP	S4 G8B # OF MNTHS RESP AT SCHOOL	Data suppressed for respondent confidentialit
S4GENDER	S4 H1 GENDER OF SCHOOL ADMINISTRATOR	Data suppressed for respondent confidentialit
S4BRTHYR	S4 H2 YEAR SCHL ADMIN WAS BORN	Data recoded for respondent confidentiality
S4HISP	S4 H3 SCHL ADMIN IS HISP/LAT (ANY RACE)	Data suppressed for respondent confidentialit
S4AMINAN	S4 H4A SCHL ADMIN IS AMER IND/ALASKA NAT	Data suppressed for respondent confidentialit
S4ASIAN	S4 H4B SCHL ADMIN IS ASIAN	Data suppressed for respondent confidentialit
S4BLACK	S4 H4C SCHL ADMIN IS BLACK/AFRICAN AMER	Data suppressed for respondent confidentialit
S4HAWPI	S4 H4D SCL ADMIN IS NAT HAWAIIAN/PAC ISL	Data suppressed for respondent confidentialit
S4WHITE	S4 H4E SCHL ADMIN IS WHITE	Data suppressed for respondent confidentialit
S4YSTCH	S4 H5A NUMBER OF YRS TEACHING	Data recoded for respondent confidentiality

Exhibit 19. ECLS-K:2011 masked variables, spring 2012 school administrator questionnaire— Continued

Variable name	Variable description	Reason for suppression
S4TOTPRI	S4 H5B NUMBER OF YRS AS SCHL ADMIN	Data recoded for respondent confidentiality
S4PRINHR	S4 H5C NUMBER YRS A SCHL ADMIN HERE	Data suppressed for respondent confidentiality
S4UNIVER	S4 H6A TRAIN AT TRADITNL UNIV/CERT PROG	Data suppressed for respondent confidentiality
S4DISTPR	S4 H6B DISTRICT-BASED TRAINING PROG	Data suppressed for respondent confidentiality
S4CITYPR	S4 H6C CITY-BASED TRAINING PROG	Data suppressed for respondent confidentiality
S4STPROG	S4 H6D STATE-BASED TRAINING PROG	Data suppressed for respondent confidentiality
S4NATNON	S4 H6E NATIONAL NON-PROFIT TRAINING	Data suppressed for respondent confidentiality
S4OTHSCH	S4 H6F ANOTHER SCHOOL ADMIN PROG	Data suppressed for respondent confidentiality
S4EDLVL	S4 H7 HIGHEST LEVEL OF EDUCATION	Data recoded for respondent confidentiality
S4BSERED	S4 H8A FIELD OF STUDY-EARLY CHILD ED	Data suppressed for respondent confidentiality
S4BSELEM	S4 H8B FIELD OF STUDY-ELEMENTARY ED	Data suppressed for respondent confidentiality
S4BSEDAD	S4 H8C FIELD OF STUDY-ED ADMIN/MANAGE	Data suppressed for respondent confidentiality
S4BSSPED	S4 H8D FIELD OF STUDY-SPECIAL ED	Data suppressed for respondent confidentiality
S4BSOTHR	S4 H8E FIELD OF STUDY-OTHER ED MAJOR	Data suppressed for respondent confidentiality
S4BSNOED	S4 H8F FIELD OF STUDY-NON-ED MAJOR	Data suppressed for respondent confidentiality
S4SOVTNM	S4 H14 OTHER LANGUAGE -VIETNAMESE	Data suppressed for respondent confidentiality
S4SOJAPN	S4 H14 OTHER LANGUAGE -JAPANESE	Data suppressed for respondent confidentiality
S4SOKORN	S4 H14 OTHER LANGUAGE -KOREAN	Data suppressed for respondent confidentiality
S4SOFILP	S4 H14 OTHER LANGUAGE -FILIPINO	Data suppressed for respondent confidentiality
S4SOARAB	S4 H14 OTHER LANGUAGE -ARABIC	Data suppressed for respondent confidentiality

Exhibit 19.	ECLS-K:2011 masked variables, spring 2012 school administrator questionnaire—
	Continued

Variable name	Variable description	Comments
X3EXDIS	X3 CHILD NOT ASSESSED - DISAB EXCLUSION	Data suppressed for respondent confidentiality
X4EXDIS	X4 CHILD NOT ASSESSED - DISAB EXCLUSION	Data suppressed for respondent confidentiality
X3HEIGHT	X3 CHILD COMPOSITE HGT (INCHES)	Data recoded for respondent confidentiality
X4HEIGHT	X4 CHILD COMPOSITE HGT (INCHES)	Data recoded for respondent confidentiality
X3WEIGHT	X3 CHILD COMPOSITE WGT (POUNDS)	Data recoded for respondent confidentiality
X4WEIGHT	X4 CHILD COMPOSITE WGT (POUNDS)	Data recoded for respondent confidentiality
X3ASMTST	X3 ASSESSMENT STATUS FALL 2011	Data recoded for respondent confidentiality
X4ASMTST	X4 ASSESSMENT STATUS SPRING 2012	Data recoded for respondent confidentiality
X4YRRND	X4 YEAR ROUND SCHOOL	Data suppressed for respondent confidentiality
X4LOWGRD	X4 LOWEST GRADE AT THE SCHOOL	Data recoded for respondent confidentiality
X4HIGGRD	X4 HIGHEST GRADE AT THE SCHOOL	Data recoded for respondent confidentiality
X4SCHBDD	X4 SCHOOL YEAR BEGINNING DATE DAY	Data suppressed for respondent confidentiality
X4SCHBMM	X4 SCHOOL YEAR BEGINNING DATE MONTH	Data recoded for respondent confidentiality
X4SCHEDD	X4 SCHOOL YEAR ENDING DATE DAY	Data suppressed for respondent confidentiality
X4SCHEMM	X4 SCHOOL YEAR ENDING DATE MONTH	Data recoded for respondent confidentiality
X3SUMVD	X3 LENGTH OF SUMMER VACATION (DAYS)	Data recoded for respondent confidentiality
X3SUMSH	X3 LENGTH OF SUMMER SCHL PROGRAM (HOURS)	Data recoded for respondent confidentiality
X DOBYY R	CHILD COMPOSITE DOB YEAR - REVISED	Data recoded for respondent confidentiality
X3LOCALE	X3 LOCATION TYPE OF SCHOOL	Data recoded for respondent confidentiality
X4LOCALE	X4 LOCATION TYPE OF SCHOOL	Data recoded for respondent confidentiality
X4PAR1ED_I	X4 PARENT 1 EDUCATION LEVEL (IMPUTED)	Data recoded for respondent confidentiality
X4PAR2ED I	X4 PARENT 2 EDUCATION LEVEL (IMPUTED)	Data recoded for respondent confidentiality

Exhibit 20. ECLS-K:2011 masked variables, fall 2011 and spring 2012 composite variables

Variable name	Variable description	Comments
F3CADISP	F3 CHILD ASSESSMENT DISPOSITION CODE	Data suppressed for respondent confidentialit
F4CADISP	F4 CHILD ASSESSMENT DISPOSITION CODE	Data suppressed for respondent confidentialit
F3PIDISP	F3 PARENT INTERVIEW DISPOSITION CODE	Data suppressed for respondent confidentialit
F4PIDISP	F2 PARENT INTERVIEW DISPOSITION CODE	Data suppressed for respondent confidentialit
F3CCDLEA	F4 CCD LEA/SCHOOL DIST ID (PUBLIC)	Data suppressed for respondent confidentialit
F4CCDLEA	F4 CCD LEA/SCHOOL DIST ID (PUBLIC)	Data suppressed for respondent confidentialit
F3CCDSID	F3 CCD SCHOOL ID (PUBLIC)	Data suppressed for respondent confidentialit
F4CCDSID	F4 CCD SCHOOL ID (PUBLIC)	Data suppressed for respondent confidentialit
F3FIPSCT	F3 SCHOOL FIPS COUNTY CODE	Data suppressed for respondent confidentialit
F4FIPSCT	F4 SCHOOL FIPS COUNTY CODE	Data suppressed for respondent confidentialit
F3FIPSST	F3 SCHOOL FIPS STATE CODE	Data suppressed for respondent confidentialit
F4FIPSST	F4 SCHOOL FIPS STATE CODE	Data suppressed for respondent confidentialit
F3SCHPIN	F3 SCHOOL PIN (PRIVATE/PSS)	Data suppressed for respondent confidentialit
F4SCHPIN	F4 SCHOOL PIN (PRIVATE/PSS)	Data suppressed for respondent confidentialit
F3SCHZIP	F3 SCHOOL ZIP CODE	Data suppressed for respondent confidentialit
F4SCHZIP	F4 SCHOOL ZIP CODE	Data suppressed for respondent confidentialit
F3CENTRC	F3 SCHOOL CENSUS TRACT CODE	Data suppressed for respondent confidentialit
F4CENTRC	F4 SCHOOL CENSUS TRACT CODE	Data suppressed for respondent confidentialit
P3CENTRC	P3 HOME CENSUS TRACT CODE	Data suppressed for respondent confidentialit
P4CENTRC	P4 HOME CENSUS TRACT CODE	Data suppressed for respondent confidentialit
P3HOMZIP	P3 HOME ZIP CODE	Data suppressed for respondent confidentialit
P4HOMZIP	P4 HOME ZIP CODE	Data suppressed for respondent confidentialit
X3REGION	X3 CENSUS REGION OF SCHOOL	Data suppressed for respondent confidentialit
X4REGION	X4 CENSUS REGION OF SCHOOL	Data suppressed for respondent confidentialit
T3_ID	FALL 2011 TEACHER IDENTIFICATION NUMBER	Data suppressed for respondent confidentialit
T4_ID	SPRING 2012 TEACHER IDENTIFICATION NUMBER	Data suppressed for respondent confidentialit
_ D4T_ID	SPRING 2012 SPECIAL ED TEACHER ID NUMBER	Data suppressed for respondent confidentialit

Exhibit 21. ECLS-K:2011 masked variables, fall 2011 and spring 2012 field management system and identification variables