

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

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



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

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

**April 2015**

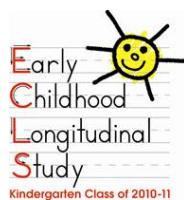
**Karen Tourangeau**  
**Christine Nord**  
**Thanh Lê**  
**Kathleen Wallner-Allen**  
**Mary C. Hagedorn**  
**John Leggitt**  
Westat

**Michelle Najarian**  
Educational Testing Service

**Gail M. Mulligan**  
Project Officer  
National Center for Education Statistics

NCES 2015-078

U.S. DEPARTMENT OF EDUCATION



**U.S. Department of Education**

Arne Duncan  
*Secretary*

**Institute of Education Sciences**

Sue Betka  
*Acting Director*

**National Center for Education Statistics**

Peggy Carr  
*Acting Commissioner*

The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. It fulfills a congressional mandate to collect, collate, analyze, and report full and complete statistics on the condition of education in the United States; conduct and publish reports and specialized analyses of the meaning and significance of such statistics; assist state and local education agencies in improving their statistical systems; and review and report on education activities in foreign countries.

NCES activities are designed to address high-priority education data needs; provide consistent, reliable, complete, and accurate indicators of education status and trends; and report timely, useful, and high-quality data to the U.S. Department of Education, the Congress, the states, other education policymakers, practitioners, data users, and the general public. Unless specifically noted, all information contained herein is in the public domain.

We strive to make our products available in a variety of formats and in language that is appropriate to a variety of audiences. You, as our customer, are the best judge of our success in communicating information effectively. If you have any comments or suggestions about this or any other NCES product or report, we would like to hear from you. Please direct your comments to

NCES, IES, U.S. Department of Education  
1990 K Street NW  
Washington, DC 20006-5651

April 2015

The NCES Home Page address is <http://nces.ed.gov>.

The NCES Publications and Products address is <http://nces.ed.gov/pubsearch>.

A copy of this publication is available in Appendix C on the Electronic Codebook (ECB).

The Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) has been funded by the U.S. Department of Education, Institute of Education Sciences, under contract number ED-04-CO-0059/0023 with Westat. This report was produced under that contract. Mention of trade names, commercial products, or organizations does not imply endorsement by the U.S. Government.

**Suggested Citation**

Tourangeau, K., Nord, C., Lê, T., Wallner-Allen, K., Hagedorn, M.C., Leggitt, J., and Najarian, M. (2015). *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), User's Manual for the ECLS-K:2011 Kindergarten–First Grade Data File and Electronic Codebook, Public Version* (NCES 2015-078). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

**Content Contact**

Gail M. Mulligan  
(202) 502-7491  
[Gail.Mulligan@ed.gov](mailto:Gail.Mulligan@ed.gov)

## CONTENTS

<u>Chapter</u>		<u>Page</u>
	LIST OF TABLES.....	ix
	LIST OF EXHIBITS.....	xiv
1	INTRODUCTION .....	1-1
	1.1 Background.....	1-2
	1.2 Periods of Data Collection .....	1-3
	1.3 Overview of the First-Grade Rounds of Data Collection.....	1-4
	1.4 ECLS-K:2011 Kindergarten–First Grade (K-1) Data File .....	1-5
	1.5 Contents of Manual.....	1-5
2	DATA COLLECTION INSTRUMENTS AND METHODS .....	2-1
	2.1 Data Collection Instruments .....	2-1
	2.1.1 Direct Child Assessment.....	2-2
	2.1.2 Parent Interview .....	2-8
	2.1.3 General Classroom Teacher Questionnaires .....	2-11
	2.1.4 Special Education Teacher Questionnaires.....	2-15
	2.1.5 School Administrator Questionnaires .....	2-17
	2.1.6 Copyrighted Materials.....	2-19
	2.2 Data Collection Methods .....	2-20
	2.2.1 Differences in Data Collection Methods Between Kindergarten and First Grade.....	2-21
3	ECLS-K:2011 DIRECT AND INDIRECT ASSESSMENT DATA .....	3-1
	3.1 Direct Cognitive Assessment: Reading, Mathematics, and Science .....	3-1
	3.1.1 IRT-Based Scores Developed for the ECLS-K:2011 .....	3-2
	3.1.1.1 Theta and the Standard Error of Measurement ( <i>SEM</i> ) of Theta.....	3-3
	3.1.1.2 Scale Scores.....	3-6
	3.1.2 Raw Number-Right Scores for the ECLS-K:2011 .....	3-7
	3.1.3 Variables Indicating Children’s Pathway Through the Assessment .....	3-9
	3.1.4 Choosing the Appropriate Score for Analysis .....	3-10

## CONTENTS—Continued

<u>Chapter</u>		<u>Page</u>
	3.1.5 Analytic Considerations for Measuring Gains in - the ECLS-K:2011 .....	3-12
	3.1.6 Reliability of the ECLS-K:2011 Scores .....	3-13
	3.1.7 Validity of the ECLS-K:2011 Scores .....	3-15
	3.2 Direct Cognitive Assessment: Executive Function .....	3-15
	3.2.1 <i>Dimensional Change Card Sort</i> .....	3-16
	3.2.1.1 <i>Dimensional Change Card Sort Data Flags</i> .....	3-18
	3.2.2 Numbers Reversed .....	3-18
	3.2.2.1 <i>Numbers Reversed</i> Data Flags .....	3-24
	3.3 Indirect Cognitive Assessment, the Academic Rating Scale .....	3-24
	3.4 Teacher-Reported Social Skills .....	3-25
	3.5 Parent-Reported Social Skills .....	3-28
	3.6 Teacher-Reported Approaches to Learning Items and Scale .....	3-30
	3.7 Parent-Reported Approaches to Learning Items and Scale .....	3-31
	3.8 <i>Children's Behavior Questionnaire</i> .....	3-32
	3.9 <i>Student-Teacher Relationship Scale</i> .....	3-33
4	SAMPLE DESIGN AND SAMPLING WEIGHTS .....	4-1
	4.1 Sample Design for the Base Year .....	4-1
	4.1.1 ECLS-K:2011 School Sample for the Base Year .....	4-2
	4.1.2 The Base-Year Sample of Children .....	4-4
	4.2 Sample Design for the First-Grade Year .....	4-7
	4.2.1 Fall First Grade .....	4-7
	4.2.2 Spring First Grade .....	4-11
	4.2.3 Following Movers .....	4-12
	4.3 Calculation and Use of Sample Weights .....	4-14
	4.3.1 Types of Sample Weights .....	4-15
	4.3.2 Computation of Sample Weights .....	4-21
	4.3.2.1 Student Base Weights .....	4-21
	4.3.2.2 Student Weights Adjusted for Mover Subsampling .....	4-22
	4.3.2.3 Student Nonresponse-Adjusted Weights .....	4-22
	4.3.2.4 Raking to Sample Control Totals .....	4-23

## CONTENTS—Continued

<u>Chapter</u>		<u>Page</u>
	4.3.3 Characteristics of Sample Weights.....	4-24
	4.3.4 Variance Estimation .....	4-25
	4.3.4.1 Jackknife Method.....	4-26
	4.3.4.2 Taylor Series Method .....	4-26
	4.3.4.3 Specifications for Computing Standard Errors ....	4-27
	4.3.5 Use of Design Effects.....	4-28
5	RESPONSE RATES .....	5-1
	5.1 Study Instruments .....	5-1
	5.2 Unit Response Rates and Overall Response Rates .....	5-2
	5.3 Nonresponse Bias Analysis.....	5-36
	5.3.1 Effect of Nonresponse on Parent Interview Data .....	5-36
	5.3.2 Effect of Nonresponse on Characteristics from the Base Year .....	5-41
6	DATA PREPARATION .....	6-1
	6.1 Coding Text Responses.....	6-1
	6.1.1 Household Roster Review .....	6-4
	6.1.2 Partially Complete Parent Interviews .....	6-5
	6.2 Receipt, Coding, and Editing of Hard-Copy Questionnaires .....	6-5
	6.2.1 Receipt Control .....	6-5
	6.2.2 Scanning of Hard-Copy Questionnaires .....	6-6
	6.2.3 Coding for Hard-Copy Questionnaires.....	6-6
	6.2.4 Data Editing.....	6-6
7	DATA FILE CONTENT AND COMPOSITE VARIABLES.....	7-1
	7.1 Variable Naming Conventions.....	7-2
	7.2 Identification Variables.....	7-3
	7.3 Missing Values .....	7-6

## CONTENTS—Continued

<u>Chapter</u>		<u>Page</u>
7.4	Data Flags .....	7-10
7.4.1	Child Assessment Flags (X3RDGFLG, X4RDGFLG, X3MTHFLG, X4MTHFLG, X3SCIFLG, X4SCIFLG, X3NRFLG, X4NRFLG, X3DCCSFLG, X4DCCSFLG, X3HGTFLLG, X4HGTFLLG, X3WGTFLLG, X4WGTFLLG, X3FLSCRN, X4FLSCRN, X3ASMTST, X4ASMTST, X3EXDIS, X4EXDIS) .....	7-10
7.4.2	Parent Data Flags (X3PARDAT, X4PARDAT, X4EDIT, X3BRKFNL, X4BRKFNL) .....	7-12
7.4.3	Teacher Flags (X3TQCDAT, X4TQC1DAT, X4TQCKDAT, X4TQT1DAT, X4TQTKDAT, X4SETQA, X4SETQC) .....	7-13
7.4.4	School Administrator Data Flag (X4INSAQ) .....	7-14
7.4.5	Other Child Status Flags (X3DEST, X4DEST, X3FALLSMP).....	7-14
7.5	Composite Variables .....	7-15
7.5.1	Child Composite Variables .....	7-15
7.5.1.1	Child’s Date of Birth (X_DOBYY_R and X_DOBMM_R).....	7-16
7.5.1.2	Child’s Age at Assessment (X1KAGE_R, X2KAGE_R, X3AGE, X4AGE) .....	7-16
7.5.1.3	Child’s Sex (X_CHSEX_R) .....	7-17
7.5.1.4	Race/Ethnicity (X_AMINAN_R, X_ASIAN_R, X_HAWPI_R, X_BLACK_R, X_WHITE_R, X_HISP_R, X_MULTR_R, X_RACETHP_R, and X_RACETH_R) .....	7-17
7.5.1.5	Child’s Height (X3HEIGHT, X4HEIGHT) .....	7-19
7.5.1.6	Child’s Weight (X3WEIGHT, X4WEIGHT).....	7-20
7.5.1.7	Child’s Body Mass Index (X3BMI, X4BMI).....	7-22
7.5.1.8	Child’s Disability Status (X2DISABL2, X4DISABL2, X4DISABL) .....	7-22
7.5.1.9	Primary Language in the Child’s Home (X4LANGST).....	7-24
7.5.1.10	Student Grade Level (X3GRDLVL, X4GRDLVL) .....	7-24
7.5.1.11	Student Kindergarten Class Type and Teacher Class Data Reporting (X4CLASS2) .....	7-25
7.5.1.12	Child Linked to a Special Education Teacher (X4SPECS).....	7-29
7.5.2	Family and Household Composite Variables .....	7-30



## CONTENTS—Continued

<u>Chapter</u>	<u>Page</u>
7.5.2.1	Household Counts (X4HTOTAL, X4NUMSIB, X4LESS18, X4OVER18) ..... 7-31
7.5.2.2	Household Rosters..... 7-32
7.5.2.3	Food Security Status..... 7-34
7.5.2.3.1	Food Security Status: Raw Scores (X4FSRAW2, X4FSADRA2, and X4FSCHRA) ..... 7-36
7.5.2.3.2	Food Security Status: Continuous Measure (X4FSSCAL2, X4FSADSC2, and X4FSCHSC)..... 7-36
7.5.2.3.3	Food Security Status: Categorical Measures (X4FSSTAT2, X4FSADST2, and X4FSCHST) ..... 7-37
7.5.2.4	Parent Identifiers and Type in the Household (X4IDP1, X4IDP2, X4HPAR1, X4HPAR2, X4HPARNT) ..... 7-38
7.5.2.5	Parent Demographic Variables (X4PAR1AGE, X4PAR2AGE, X4PAR1RAC, X4PAR2RAC) ... 7-44
7.5.2.6	Parent Education Variables (X4PAR1ED_I, X4PAR2ED_I)..... 7-45
7.5.2.7	Parent Occupation Variables (X4PAR1EMP_I, X4PAR2EMP_I, X4PAR1OCC_I, X4PAR2OCC_I, X4PAR1SCR_I, X4PAR2SCR_I)..... 7-46
7.5.2.8	Household Income and Poverty (X4INCCAT_I, X4POVTY_I)..... 7-53
7.5.2.9	Socioeconomic Status (SES) (X4SESL_I)..... 7-56
7.5.2.10	Respondent ID and Relationship to Focal Child (X4RESID, X4RESREL2)..... 7-61
7.5.3	Teacher Composite Variables ..... 7-62
7.5.4	School and Class Composite Variables..... 7-62
7.5.4.1	School Type (X4SCTYP)..... 7-62
7.5.4.2	Public or Private School (X3PUBPRI, X4PUBPRI)..... 7-63
7.5.4.3	School Enrollment (X4ENRLS)..... 7-63
7.5.4.4	Percent Non-White Students in the School (X4RCETH) ..... 7-64
7.5.4.5	Highest and Lowest Grade at the School (X4LOWGRD, X4HIGGRD)..... 7-65
7.5.4.6	Students Approved for Free or Reduced-Price School Meals (X4FMEAL_I, X4RMEAL_I)..... 7-66

## CONTENTS—Continued

<u>Chapter</u>		<u>Page</u>
	7.5.4.7 School Year Start and End Dates (X4SCHBDD, X4SCHBMM, X4SCHBYY, X4SCHEDD, X4SCHEMM, X4SCHEYY).....	7-68
	7.5.4.8 Geographic Region and Locality of the Child’s School (X3REGION, X4REGION, X3LOCALE, X4LOCALE) .....	7-69
	7.5.5 Field Management System (FMS) Composite Variables .....	7-71
	7.5.5.1 Year-Round Schools (X4YRRND) .....	7-71
	7.5.6 School District Poverty (X4DISTPOV).....	7-72
	7.6 Methodological Variables.....	7-72
	7.7 Children Who Changed Teachers Between Rounds (X34CHGTCH) .....	7-72
	7.8 Summer School and Vacation (X3SUMSH, X3SUMVD).....	7-73
8	ELECTRONIC CODEBOOK.....	8-1
	8.1 Introduction.....	8-1
	8.1.1 Hardware and Software Requirements .....	8-1
	8.2 Installing and Starting the ECB.....	8-2
	8.2.1 Installing the ECB Program on Your Personal Computer .....	8-2
	8.2.2 How to Start the ECB.....	8-6
	REFERENCES .....	R-1
	APPENDIX A: DATA ANOMALIES AND ERRATA .....	A-1
	APPENDIX B: SUPPLEMENTAL GUIDE FOR THE KINDERGARTEN-FIRST GRADE PUBLIC-USE DATA FILE .....	B-1

## CONTENTS—Continued

### List of Tables

<u>Table</u>		<u>Page</u>
3-1	Direct cognitive assessment: IRT theta scores, fall and spring kindergarten and fall and spring first-grade assessments: School years 2010–11 and 2011–12 .....	3-5
3-2	Direct cognitive assessment: IRT standard errors of measurement (SEM), fall and spring kindergarten and fall and spring first-grade assessments: School years 2010–11 and 2011–12 .....	3-5
3-3	Direct cognitive assessment: IRT scale scores, fall and spring kindergarten and fall and spring first-grade assessment: School years 2010–11 and 2011–12 .....	3-7
3-4	Direct cognitive assessment: Raw number-right scores, fall and spring kindergarten and fall and spring first-grade assessments: School years 2010–11 and 2011–12 .....	3-9
3-5	Reliability of IRT-based scores: IRT theta and scale scores (overall ability estimates), by round of data collection and domain: School years 2010–11 and 2011–12 .....	3-14
3-6	Reliability of raw number right scores, by round of data collection and domain: School years 2010–11 and 2011–12 .....	3-14
3-7	Dimensional Change Card Sort variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12 .....	3-18
3-8	Numbers Reversed variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12 .....	3-24
3-9	Academic Rating Scale response scale: School years 2010–11 and 2011–12 .....	3-25
3-10	Teacher-reported social skills scales variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12 .....	3-27

## CONTENTS—Continued

### List of Tables—Continued

<u>Table</u>		<u>Page</u>
3-11	Teacher-reported social skill scales reliability estimates: School years 2010–11 and 2011–12 .....	3-28
3-12	Parent-reported social skills scales variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and spring first grade: School years 2010–11 and 2011–12 .....	3-29
3-13	Parent-reported social skills scales reliability estimates: School years 2010–11 and 2011–12 .....	3-30
3-14	Teacher-reported Approaches to Learning scale variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12 .....	3-31
3-15	Parent-reported Approaches to Learning scale variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and spring first grade: School years 2010–11 and 2011–12 .....	3-32
3-16	Children’s Behavior Questionnaire variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12 .....	3-33
3-17	Student-Teacher Relationship Scale variable names, descriptions, value ranges, weighted means, and standard deviations for spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12 .....	3-34
4-1	The ECLS-K:2011 school sample after school substitution .....	4-3
4-2	Number (unweighted) of eligible children in the ECLS-K:2011 base-year sample, by selected characteristics: School year 2010–11 .....	4-5
4-3	Number (unweighted) of children participating in the base year, by selected characteristics: School year 2010–11 .....	4-6
4-4	Number (unweighted) of schools in the fall first-grade school sample, by selected characteristics: Fall 2011 .....	4-8

## CONTENTS—Continued

### List of Tables—Continued

<u>Table</u>		<u>Page</u>
4-5	Number (unweighted) of schools in the fall first-grade school sample with base-year respondents, by selected characteristics: Fall 2011 .....	4-9
4-6	Number (unweighted) of base-year respondents in the fall first-grade sample, by selected characteristics: Fall 2011 .....	4-10
4-7	Number (unweighted) of schools in spring first grade with base-year respondents, by selected characteristics: Spring 2012 .....	4-11
4-8	Characteristics of the first-grade weights: School year 2011–12 .....	4-25
4-9	Standard errors and design effects for selected survey items, fall first grade: Fall 2011 .....	4-31
4-10	Median design effects for the fall first-grade survey items, by school characteristic: Fall 2011 .....	4-32
4-11	Standard errors and design effects for selected survey items, spring first grade: Spring 2012 .....	4-33
4-12	Median design effects for the spring first-grade survey items, by school characteristic: Spring 2012 .....	4-35
5-1	Response rates for child assessment and parent interview, by selected school characteristics, fall first grade: Fall 2011 .....	5-5
5-2	Response rates for child assessment and parent interview, by selected student characteristics, fall first grade: Fall 2011 .....	5-7
5-3	Response rates for teacher questionnaires, by selected school characteristics, fall first grade: Fall 2011 .....	5-8
5-4	Response rates for teacher questionnaires, by selected student characteristics, fall first grade: Fall 2011 .....	5-9
5-5	Overall response rates for child assessment and parent interview, by selected school characteristics, fall first grade: Fall 2011 .....	5-11

## CONTENTS—Continued

### List of Tables—Continued

<u>Table</u>		<u>Page</u>
5-6	Overall response rates for teacher questionnaires, by selected school characteristics, fall first grade: Fall 2011 .....	5-13
5-7	Response rates for child assessment and parent interview, by selected school characteristics, spring first grade: Spring 2012.....	5-15
5-8	Response rates for child assessment and parent interview, by selected student characteristics, spring first grade: Spring 2012 .....	5-17
5-9	Response rates for teacher questionnaires, by selected school characteristics, spring first grade: Spring 2012.....	5-18
5-10	Response rates for teacher questionnaires, by selected student characteristics, spring first grade: Spring 2012.....	5-20
5-11	Overall response rates for child assessment and parent interview, by selected school characteristics, spring first grade: Spring 2012 .....	5-21
5-12	Overall response rates for teacher questionnaires, by selected school characteristics, spring first grade: Spring 2012 .....	5-23
5-13	Longitudinal response rates for child assessment and parent interview, by selected school characteristics, fall and spring first grade: School year 2011–12 .....	5-25
5-14	Longitudinal response rates for child assessment and parent interview, by selected student characteristics, fall and spring first grade: School year 2011–12 .....	5-28
5-15	Overall longitudinal response rates for child assessment and parent interview, by selected school characteristics, fall and spring first grade: School year 2011–12 .....	5-29
5-16	Response rates for special education teacher questionnaires, spring first grade: Spring 2012 .....	5-31

## CONTENTS—Continued

### List of Tables—Continued

<u>Table</u>		<u>Page</u>
5-17	Response rates for school administrator questionnaire, by selected school characteristics, spring first grade: Spring 2012 .....	5-32
5-18	Response rates for school administrator questionnaire, by selected student characteristics, spring first grade: Spring 2012 .....	5-34
5-19	Overall response rates for school administrator questionnaire, by selected school characteristics, spring first grade: Spring 2012 .....	5-35
5-20	Estimates using unadjusted and nonresponse-adjusted weights, spring first grade: Spring 2012 .....	5-37
5-21	Differences between unweighted and weighted estimates, and between unadjusted and adjusted estimates, spring first grade: Spring 2012.....	5-39
5-22	Differences between unadjusted estimates from kindergarten and unadjusted estimates from spring first grade: School year 2010–11 and Spring 2012 .....	5-42
7-1	Pointers to parent figure questions: School year 2011–12.....	7-42
7-2	Occupation categories and assigned prestige scores.....	7-52
7-3	Detailed income range categories used in the parent interview: Spring 2012.....	7-54
7-4	Criteria for reporting income to the nearest \$1,000 in the spring parent interview and 2011 thresholds for 200 percent of poverty: Spring 2012.....	7-55
7-5	ECLS-K:2011 poverty composite and 2011 census poverty thresholds: Spring 2012 .....	7-56
7-6	Missing data for socioeconomic status (SES) source variables, first-grade year: School year 2011–12.....	7-57
7-7	Public and private schools with missing values for the school meal composites: Spring 2012.....	7-67

## CONTENTS—Continued

### List of Exhibits

<u>Exhibit</u>		<u>Page</u>
1-1	Planned data collection schedule: School years 2010–11 through 2015–16.....	1-4
2-1	Instruments used in the ECLS-K:2011 kindergarten and first-grade rounds of data collection: School years 2010–11 and 2011–12.....	2-2
2-2	Routing path for the direct child assessment in the ECLS-K:2011 first-grade year.....	2-5
2-3	Parent interview topics, by round of data collection in the ECLS-K:2011: School years 2010–11 and 2011–12.....	2-10
2-4	General classroom teacher teacher-level questionnaire topics, by round of data collection in the ECLS-K:2011: School years 2010–11 and 2011–12.....	2-14
2-5	General classroom teacher child-level questionnaire topics, by round of data collection in the ECLS-K: 2011: School years 2010–11 and 2011–12.....	2-15
2-6	Special education teacher questionnaire topics, by round of data collection in the ECLS-K: 2011: School years 2010–11 and 2011–12.....	2-17
2-7	School administrator questionnaire topics, by round of data collection in the ECLS-K:2011: School years 2010–11 and 2011–12.....	2-19
2-8	Copyright-protected instruments in ECLS-K:2011 first-grade year.....	2-20
4-1	ECLS-K:2011 first-grade main sampling weights: School year 2011–12.....	4-16
4-2	Weights developed for use with the ECLS-K:2011 first-grade data, by components for which nonresponse adjustments were made: School year 2011–12.....	4-20
5-1	ECLS-K:2011 survey instruments and definition of completed interview: School year 2011–12.....	5-1
7-1	Prefixes for first-grade variables: School year 2011–12.....	7-3



## CONTENTS—Continued

### List of Exhibits—Continued

<u>Exhibit</u>		<u>Page</u>
7-2	Identification variables included in the ECLS-K:2011 kindergarten–first grade restricted- use data file: School year 2011–12 .....	7-4
7-3	Missing value codes used in the ECLS-K:2011 data file.....	7-6
7-4	Categories for X4CLASS2 .....	7-27
7-5	Industry and occupation codes used in the ECLS-K:2011 .....	7-49
8-1	Windows Run screen .....	8-3
8-2	InstallShield window .....	8-4
8-3	Welcome window .....	8-4
8-4	Choose Destination Location.....	8-5
8-5	Setup Status.....	8-5
8-6	InstallShield Wizard Complete.....	8-6
8-7a	Desktop icon .....	8-7
8-7b	Desktop screen—click start .....	8-7
8-8	First-time user dialog box .....	8-8
8-9	ECB splash screen .....	8-8
8-10	Select Catalog screen.....	8-8
8-11	Main ECB screen.....	8-9

*This page intentionally left blank.*

## 1. INTRODUCTION

This manual provides guidance and documentation for users of the longitudinal kindergarten–first grade (K-1) data file of the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011). It mainly provides information specific to the first-grade rounds of data collection. Users should refer to the *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* (NCES 2015-074) (Tourangeau et al. 2015) for information about the general study methodology and the kindergarten rounds of data collection.

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-first grade 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 B 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 these materials are available under “Data Products” on the ECLS-K:2011 website, <http://nces.ed.gov/ecls/kindergarten2011.asp>.

This chapter provides an overview of the ECLS-K:2011. Subsequent chapters provide details on the first-grade data collection instruments and methods, including a description of how the first-grade data collections differ from the kindergarten rounds; the direct and indirect child assessments; the sample design; weighting procedures; response rates; and data file content, including composite variables.

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

---

<sup>1</sup> *Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), User’s Manual for the ECLS-K: 2011 Kindergarten-First Grade Data File and Electronic Codebook* (NCES 2015-069) (Tourangeau et al. 2015).

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.

## **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 broad in its scope and coverage of child development, early learning, and school progress. It draws 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 answer questions regarding 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 (<http://nces.ed.gov/ecls>).

## 1.2 Periods of Data Collection

The ECLS-K:2011 is following a cohort of children from their kindergarten year (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 who were in kindergarten for the first time and those who were repeating kindergarten during 2010–11. 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 are being 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 18,170 kindergartners from about 1,310 schools<sup>3</sup> 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 during the first-grade year. While the fall kindergarten collection included the full ECLS-K:2011 sample, the fall first-grade collection was conducted with children in approximately one-third of the sample of primary sampling units (PSUs) selected for the study. These children are referred to as the fall subsample. The planned data collection schedule for second grade is similar to the schedule for first grade, with a fall collection that includes the fall subsample of children and a spring collection that includes the full sample. 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>4</sup>

---

<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>3</sup> This number includes both schools that were part of the original sample of schools selected for the study (approximately 970) and schools to which children transferred during the base year (approximately 340).

<sup>4</sup> Beginning with the fall first-grade data collection, children who moved away from their original base-year schools were sampled for follow-up. More information about the sample for first grade, including the subsampling of movers, is provided in chapter 4.

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

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

<sup>1</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 are 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 included approximately one-third of the total ECLS-K:2011 sample of children. The fall second-grade data collection includes the same subsample selected for the fall of first grade. SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011).

### 1.3 Overview of the First-Grade Rounds of Data Collection

As described in chapter 1 of the *User’s Manual for the ECLS-K:2011 Kindergarten Data File and Electronic Codebook*, the ECLS-K:2011 collects information from children, parents, classroom teachers, special education teachers, and school administrators. In the base year, information was also collected from children’s before- and after-school care providers. Data collection instruments for all of these different respondent types were included in the first-grade rounds of data collection, with the exception of the care provider questionnaires. The care provider component was included in the base year to obtain more information about young children’s activities outside of school, which is particularly important for understanding differences in the educational environments of children attending full-day kindergarten and those attending part-day kindergarten.

The assessments and instruments used in first grade were largely the same as those used in kindergarten to allow for longitudinal analysis. However, the kindergarten assessments and instruments were revised, as necessary, to make them appropriate for the first-grade data collections. For example, questions in the school administrator questionnaire asking about the school’s kindergartners were revised to ask about the school’s first-graders. More detailed information about the first-grade study instruments, including how they differ from the instruments used in the kindergarten rounds, is provided in chapter 2.

## **1.4 ECLS-K:2011 Kindergarten–First Grade (K-1) Data File**

The ECLS-K:2011 K-1 data file includes both the base-year and first-grade data, encompassing both the fall and spring rounds of data collection in kindergarten and first grade. The data file includes all cases that participated during the kindergarten year even if they did not participate during the first grade rounds. First-grade data for cases that did not participate are set to “system missing” for the first-grade round or rounds in which they are nonrespondents. The K-1 data file is intended to replace the previously released base-year data file; the K-1 file includes all of the cases included on the base-year file and has some important corrections and updates to previously released data, including the child assessment scores.

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 who participated in the base year. The record for each child contains information from each of the study respondents: the child, as well as his or her parent, teacher(s), school administrator and, if applicable, before- or after-school care provider.

The ECLS-K:2011 K-1 data are provided on CD-ROM 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.

## **1.5 Contents of Manual**

The remainder of this manual contains more detailed information on the first-grade data collection instruments (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 describes the structure of the K-1 data file and the composite variables that have been developed for the file (chapter 7).

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



## 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) first-grade rounds of data collection, including the child assessments, parent interview, school administrator questionnaires, and teacher questionnaires.<sup>1</sup> Differences between the kindergarten and first-grade rounds in the study instruments and data collection procedures are discussed.

### 2.1 Data Collection Instruments

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 kindergarten 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 and first-grade collections are included on the ECLS-K:2011 kindergarten–first grade (K-1) CD-ROM and are available online at <http://nces.ed.gov/ecls>, 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 2.1.6.

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. Sections 2.1.1–2.1.5 describe the major topics covered in each instrument.

---

<sup>1</sup> For ease of presentation, this chapter refers to all students who were not retained in kindergarten in the 2011–12 school year as “first-grade students”; however, the reader should keep in mind that a very small number of students had been advanced to a higher grade and are included in the estimates for the first-grade students.

Exhibit 2-1. Instruments used in the ECLS-K:2011 kindergarten and first-grade rounds of data collection: School years 2010–11 and 2011–12

Instrument	Fall kindergarten	Spring kindergarten	Fall first grade	Spring first grade
<b>Child assessment</b>				
Language screener	X	X	X	X
Reading	X	X	X	X
Mathematics	X	X	X	X
Executive function	X	X	X	X
Science		X	X	X
Height and weight	X	X	X	X
Parent interview	X	X	X	X
<b>Classroom teacher questionnaires</b>				
Teacher level	X	X		X
Teacher level (new teacher supplement)		X		
Child level	X	X	X	X
<b>Special education teacher questionnaires</b>				
Teacher level		X		X
Child level		X		X
School administrator questionnaires		X		X

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, spring 2011, fall 2011, and spring 2012.

### 2.1.1 Direct Child Assessment

In the first-grade data collections, children were assessed in reading, mathematics, and science in both the fall and the spring.<sup>2</sup> The majority of the items included in the first-grade assessments had been included in the kindergarten assessments. However, to ensure that the assessments adequately measured the knowledge and skills of the children as they progressed through school, new, more difficult items were added to the assessments in first grade, and easier items reflecting lower level kindergarten skills were omitted. All children received the assessments designed for the first-grade collections, regardless of their actual grade level. In both the fall and the spring, students' executive function skills were assessed with the same measures fielded in kindergarten. Finally, children's height and weight were

<sup>2</sup> During the kindergarten year, children were assessed in science only in the spring.

measured again in both fall and spring. The assessment was administered directly to the sampled children on an individual basis by trained and certified child assessors. It was designed to be administered within about 60 minutes per child.<sup>3</sup> Child responses were entered by the assessors into a computer-assisted interviewing (CAI) program.

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

**Language screener for children whose home language was not English and routing through the assessment battery.** The components of the ECLS-K:2011 assessments administered to children who spoke a language other than English at home depended on the children's performance on a language screener. The screener consisted of two tasks from the Preschool Language Assessment Scale (*preLAS* 2000).<sup>4</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. In the fall and spring kindergarten rounds, all children were administered the language screener as the first component of the direct cognitive assessment, regardless of their home language.<sup>5</sup> 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.

In contrast to the procedures used in kindergarten, the screener was not administered to all children in the first-grade collections. The two *preLAS* 2000 tasks were administered only to children who spoke a language other than English at home who had not passed the screener in the most recent

---

<sup>3</sup> Actual assessment time averaged 69.7 minutes per child.

<sup>4</sup> *preLAS 2000 Cue Picture Book English Form C*, by S. E. Duncan and E. A. De Avila, 1998, Monterey, CA: CTB/McGraw-Hill Companies, Inc.

<sup>5</sup> Before the kindergarten 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.

round in which they were assessed.<sup>6</sup> For example, children who spoke a language other than English at home who were assessed most recently in the spring of kindergarten and did not pass the *preLAS* screener at that time were administered the screener the next time they were assessed. Such children who were part of the fall first-grade subsample were administered the *preLAS* screener in the fall of first grade. If they did not pass the screener in the fall, it was administered to them again in the spring. Children who were not part of the fall subsample, who spoke a language other than English at home, and who did not achieve at least a minimum score on the screener in the spring of kindergarten were administered the *preLAS* screener in the spring of first grade. Children who were not administered the language screener either because they did not speak a language other than English at home or because they passed the screener in a previous round were asked only two of the *preLAS* “Art Show” items as a warm-up; they were not administered any of the other *preLAS* items.

In first grade, all children routed to the English version of the assessment were then administered the 30-item reading routing test. Depending on the number of correct responses a child provided to items on the reading routing test, he or she was routed to one of three second-stage reading tests. Those children whose scores routed them to the low or middle second-stage tests in reading first received 18 items that contribute to the calculation of an English basic reading skills (EBRS) score.<sup>7</sup> After administration of these 18 items, students proceeded into the low or middle second-stage test. Children who were routed to the high second-stage test based on their scores on the 30-item router were not administered the 18 items that contribute to the EBRS because these items were considered too easy for their demonstrated ability level. Once the reading assessments were complete, the mathematics, science, and executive function measures were administered in English, followed by measurements of height and weight.

Children who were administered the *preLAS* 2000 in first grade and did not achieve at least the minimum score on the language screener were administered the 18 EBRS items after the screener. Once the EBRS items were administered, the cognitive assessments in English ended for children whose home language was not English. Spanish-speaking 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

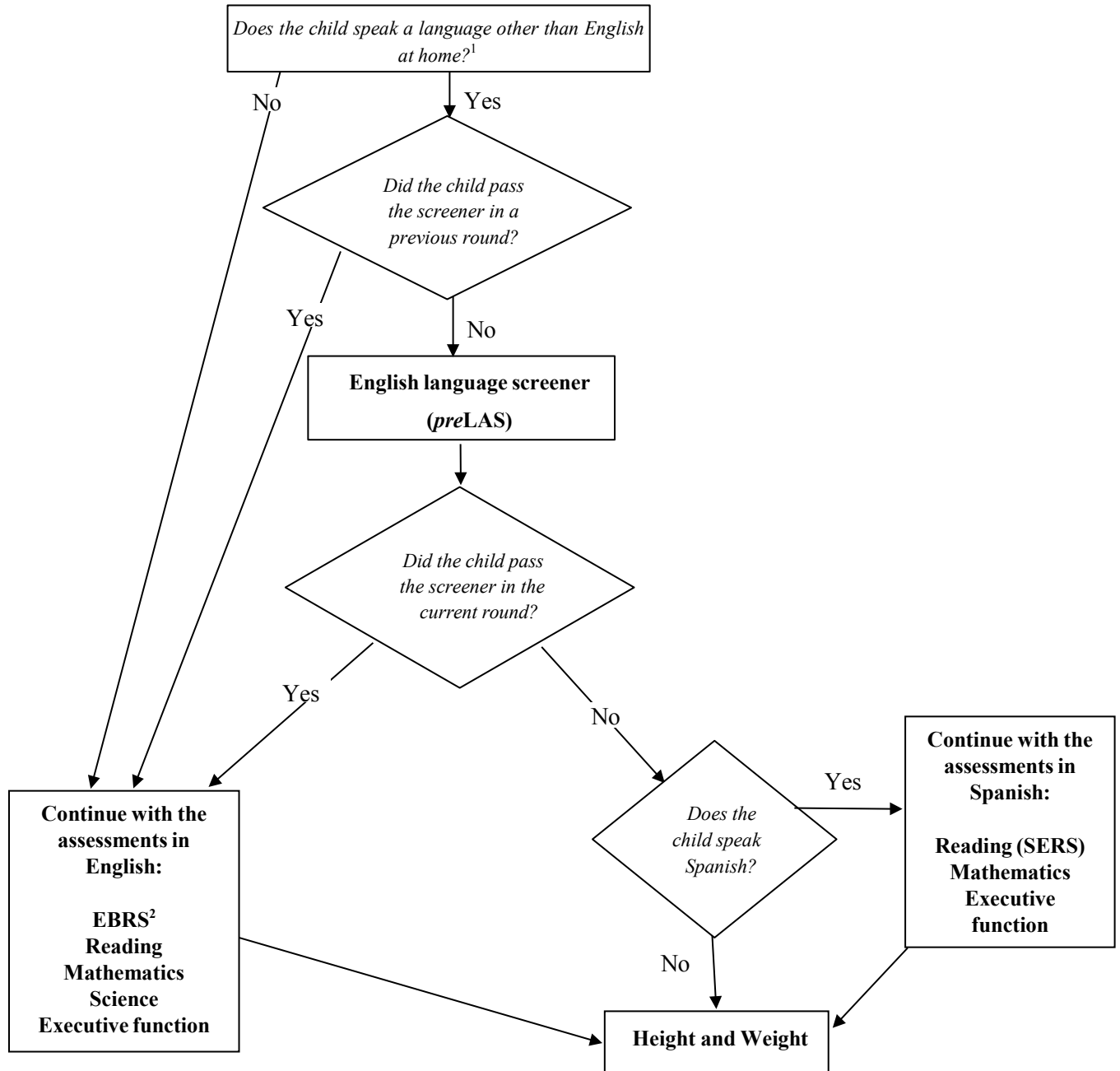
---

<sup>6</sup> The *preLAS* 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.

<sup>7</sup> The EBRS provides information on children’s performance on these 18 items plus the 2 items from the *preLAS* “Art Show” task that were administered to all children at the beginning of the assessment.

remaining cognitive assessments, although all children had their height and weight measured. Exhibit 2-2 illustrates how the first-grade assessments taken by children depended on their home language and on their performance on the language screener.

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



<sup>1</sup> Home language designation was identified in the kindergarten rounds of data collection.

<sup>2</sup> The EBRS was administered in the English reading battery only to children who were routed to the low and middle second-stage reading forms.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2011 and spring 2012.

**Cognitive domains.** The cognitive assessment focused on four domains in the fall and spring first-grade rounds: reading (language use and literacy), mathematics, science, and executive function (working memory and cognitive flexibility). For the reading, mathematics, and science assessments, assessors asked the children questions related to images (such as pictures, words, or short sentences for reading or numbers and number problems for mathematics) that were presented on a small easel. For the reading assessment, children were also asked questions about short reading selections they were asked to read in a passages booklet developed for the assessment. 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 all 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, and 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.

As noted above, the first 30 items in the reading assessment make up the routing form. Scores on the routing form determined if the EBRS was administered and which second-stage test (low, middle, or high) the child received. Spanish speakers who were 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 second-stage 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 17 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 of the text that the children could see on the easel pages, for example, question text for word problems or graph labels, was read to the children to reduce the

likelihood that their reading ability would affect their mathematics assessment performance.<sup>8</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. Some second-stage mathematics assessment forms also contained several items for which wooden blocks were available for children to use in solving the problems. However, children were not required to use blocks. Spanish-speaking children who did not pass the language screener completed the full mathematics assessment administered in Spanish.

**Science.** The science assessment domain included questions about physical sciences, life sciences, environmental sciences, and scientific inquiry. The science assessment included 15 routing items that all children who were administered the science assessment received, followed by one of three second-stage forms (low, middle, or high difficulty). As with reading and mathematics, the second-stage form children received depended on their responses to the routing form items. The questions, response options, and any text the children 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.

**Executive function.** The executive function component of the cognitive assessment obtained information on cognitive processes associated with learning: cognitive flexibility and working memory. Spanish-speaking children who did not pass the language screener completed the full executive function assessment administered in Spanish.

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.

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.

---

<sup>8</sup> Numbers were read to the child only when the question text referenced the number.

**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>9</sup> Each measurement was taken and recorded twice to ensure reliable measurement.

### **2.1.2 Parent Interview**

As in the base (i.e., kindergarten) year, a parent interview was conducted during the fall and spring first-grade data collections. While the spring first-grade parent interview was about the same length as the spring kindergarten parent interview and captured much of the same information that was asked about in the base year, the fall first-grade parent interview was relatively short and focused on children's experiences during the summer. Parents provided information about various educational and enrichment activities the child participated in during the previous summer, including educational activities in the home; use of a computer for educational purposes; reading books from summer book lists provided by the school; going to the library or bookstore; playing outside; outings with family members; camps; summer school; tutoring; therapy services or special education programs; hours spent watching television and playing video games; and nonparental child care. In addition, information about children's demographic characteristics was collected if it had not been collected in kindergarten.

The spring first-grade parent interview included many of the same questions that were included in the kindergarten rounds of the study, for example, questions about parent involvement in the child's school, children's participation in out-of-school activities, household food security, and child health and well-being. Questions about homework, time children spent playing video games, school tardiness, parenting stress, social support, inconsistent discipline, how often the respondent or spouse attended religious services, and whether there had been a change in the relationship of one of the parent figures to the child (e.g., adoption) that were not asked in the base year were added to the spring first-grade parent interview.

---

<sup>9</sup> The Shorr board is manufactured by Weigh and Measure, LLC, and is model ICA. The digital scale was Seca Bella model 840.



Exhibit 2-3 shows the content areas included in the parent interview in the fall and spring kindergarten and fall and spring first-grade rounds. While many of the same topics were addressed across rounds, there were differences in the specific questions asked for each topic. For example, questions about home activities in the fall of first grade included questions about reading to the child during a typical week of the previous summer, participation in camps, and attendance at summer school, whereas questions in that section in the spring first-grade round asked about current reading to the child in a typical week, number of books in the home, and the child's extracurricular activities outside of school hours. The average length of the parent interview was approximately 11 minutes in the fall of first grade and 43 minutes in the spring of first grade.

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 fall and spring first-grade data collection rounds, interviewers attempted to complete the parent interview with the same respondent who completed the parent interview in the kindergarten rounds, although another parent or guardian in the household who knew about the child's care, education, and health was selected if the previous respondent was not available.

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

Exhibit 2-3. Parent interview topics, by round of data collection in the ECLS-K:2011: School years 2010–11 and 2011–12

Parent interview content	Fall kindergarten	Spring kindergarten	Fall first grade	Spring first grade
Child care arrangements <sup>1</sup>	X	X	X	X
Child demographic characteristics	X	X	X	X
Child disabilities and services <sup>2</sup>		X	X	X
Child health and well-being	X	X		X
Child social skills, problem behaviors, and approaches to learning	X	X		X
Country of origin of parent and child		X		X
Family structure	X	X		X
Food sufficiency and food consumption		X		X
Household roster	X	X		X
Home environment, activities, resources, and cognitive stimulation <sup>3</sup>	X	X	X	X
Home language <sup>4</sup>	X	X		X
Involvement of nonresident parent	X	X		X
Neighborhood safety		X		X
Parent characteristics	X	X		X
Parent-child relationship		X		
Parenting stress				X
Parent education <sup>4</sup>	X	X		X
Parent employment	X			X
Parent income and assets		X		X
Parent involvement with the child's education	X	X		X
Parent marital history <sup>4</sup>	X	X		
Parent respondent's psychological well-being and health		X		
Parent social support				X
Parental beliefs and expectations related to education	X			
Parental discipline, warmth, and emotional supportiveness		X		X
Welfare and other public transfers	X	X		X

<sup>1</sup>In the fall of kindergarten, questions were asked about current child care and child care in the year before kindergarten. In the spring of kindergarten, questions about child care in the year before kindergarten were asked if information had not been collected in the fall. In the fall of first grade, questions were about child care during the previous summer. In the spring of first grade, questions asked about current child care.

<sup>2</sup>Questions in the fall first-grade interview were about services for special needs or participation in a special education program over the previous summer. Questions about disabilities and services in other rounds of the study were not limited to the past summer.

<sup>3</sup>Questions in the fall first-grade interview were about home activities, outings with family members, camps, and summer school during the previous summer. Questions in other rounds of the study were not limited to the summer.

<sup>4</sup>Asked in the spring of kindergarten if information had not been collected in the fall.

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, spring 2011, fall 2011, and spring 2012.

### **2.1.3 General Classroom Teacher Questionnaires**

During the first-grade year, the general classroom teachers of children in the study completed a self-administered hard-copy questionnaire about themselves and their classrooms as well as child-level questionnaires for each child in their classrooms who was participating in the ECLS-K:2011. 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. It included questions about the classroom and student characteristics, class materials, instructional practices and curricula, evaluation practices, and parent involvement. It also included questions on the teacher's background, teaching experience, and attitudes about teaching and the school climate. The purpose of the child-level questionnaires was to collect information specifically about each study child's experiences and performance in the classroom. In both rounds of collection, information was collected in the child-level questionnaires about the children's academic and cognitive abilities, behavior, social skills, and achievement group placement in mathematics and reading, if applicable.

In the fall of the first-grade year, teachers were asked to complete only a short child-level teacher questionnaire; in contrast to procedures used in kindergarten, there was no fall teacher-level questionnaire. The fall first-grade version of the child-level questionnaire contained some of the same items as the fall kindergarten version, namely a small set of indicators that were useful measures early in the school year, including achievement group assignment and social skills. The differences between the kindergarten and first-grade child-level questionnaires were as follows: The fall first-grade Academic Rating Scale for language and literacy skills contained only two items, and these were updated to reflect appropriate skills for first grade; there was no Academic Rating Scale for science or mathematical thinking. A question about half- or full-day kindergarten program attendance was omitted. Items were added about the child's grade level placement, whether the child had been given assignment(s) to complete over the summer and, if so, what those assignment encompassed and the extent to which the child completed the assignment.

Similar to the spring kindergarten collection, both a teacher-level questionnaire and a child-level questionnaire were included in the spring first-grade data collection. However, in first grade two versions of each type of teacher questionnaire were used: one for teachers of participating students who were in first grade during the data collection (titled "Spring 2012 Teacher Questionnaire") and another for teachers of participating students who had been retained in kindergarten for the 2011–12 school year (titled "Spring 2012 Kindergarten Teacher Questionnaire"). This was done so that the items describing

use of class time, instructional activities, curricular focus, and other aspects of the classroom would focus on the appropriate grade level.

The teacher-level questionnaires used in the spring of the first-grade year were very similar in content and length to the questionnaire that had been used in the spring kindergarten collection. In the questionnaire given to teachers of students in first grade, wording changes were made where necessary to make the questions applicable for first grade. Questions that were only or mostly applicable only to kindergarten were dropped. For example, teachers were not asked to report separately about morning, afternoon, or full-day classes. Both versions of the spring first-grade teacher-level questionnaire for this data collection period included new questions addressing aspects of Response to Intervention (RtI) Programs,<sup>10</sup> such as identification of students who were struggling with language arts and/or mathematics instruction, the provision of more intensive instruction for struggling students, and tracking students' progress. Other new items in both versions included: the time children spend working independently, in small groups, and in a large group (which replaced a kindergarten item on time spent in teacher-directed vs. student-directed activities); availability of computers and Internet access; the use of technology such as computers, smart boards, and DVD players; and an item on school climate. The spring teacher-level questionnaire for students who were in kindergarten in spring 2012 was nearly identical to the one used in spring kindergarten. Omitted from both versions were items that had been asked in kindergarten about regular meetings with other teachers; the number of children with disabilities, by specific disability; and standards used for evaluation of children. Omitted from the questionnaire for teachers of first-grade students were items on interest or activity areas in the classroom, kindergarten transition activities, and additional reading instruction services. In addition, the first-grade version of the teacher-level questionnaire included new items about classroom instruction and curricula that were aligned with Common Core State Standards<sup>11</sup> and focused on skills taught rather than on the instructional activities used to teach those skills. This change was made at the recommendation of members of the study's Technical Review Panel.

Similar to the design of the teacher-level questionnaire, there were two versions of the child-level questionnaire used in the spring first-grade collection: one for teachers of study children who were in first grade, titled "Spring 2012 Teacher Questionnaire Child Level," and one for teachers of

---

<sup>10</sup> Response to Intervention (RtI) can be defined as a system for general, remedial, and special education that integrates assessment, evidence-based intervention, and student monitoring within a multitiered system designed to maximize student achievement and reduce behavior problems by tailoring the type and intensity of interventions based on individual student performance. RtI can also be used to identify students with learning disabilities.

<sup>11</sup> See the website of the Common Core State Standards Initiative: <http://www.corestandards.org/>.

study children who had been retained in kindergarten, titled “Spring 2012 Kindergarten Teacher Questionnaire Child Level.” The two versions were very similar, with some minor wording differences to refer to the appropriate grade level. Items relevant only to kindergarten were omitted from the questionnaire for first- grade students (for example, prekindergarten services the child had received). Compared with the spring kindergarten child-level questionnaire, the child-level instruments used in the spring of 2012 for both on- grade and retained students included two new items: (1) one asking for which subjects the respondent was the child’s primary teacher and (2) one asking for the teacher’s estimation of how far the student would progress in his or her education. An item was added to the set of social skills items to be consistent with the social skills items that were asked in the ECLS-K in first grade. The mathematics and language and literacy Academic Rating Scales included in the questionnaire for teachers of children in first grade were modified from those used in kindergarten to make the scales reflect first-grade skills and knowledge. The mathematics and language and literacy Academic Rating Scales for teachers of students retained in kindergarten were the same as those used in spring of the kindergarten year. A science Academic Rating Scale was included for the students in first grade, with items similar to those used in fall of the kindergarten year data collection, but updated to reflect first-grade skills and knowledge. In addition, an item about the type of language instruction English language learner (ELL) students received was revised.

Exhibits 2-4 and 2-5 show the topics addressed in the kindergarten and first-grade teacher- level questionnaires and child-level questionnaires, respectively, by data collection round.

Exhibit 2-4. General classroom teacher teacher-level questionnaire topics, by round of data collection in the ECLS-K:2011: School years 2010–11 and 2011–12

Teacher-level questionnaire content	Fall kindergarten	Spring kindergarten	Spring first grade (first-grade version)	Spring first grade (kindergarten version)
Classroom and student characteristics	X	X	X	X
Class type (half day or full day)	X	X		
Time working independently, small groups, large group			X	X
Instructional activities and curricular focus		X	X	X
Instructions for English language learners	X	X	X	X
Content coverage for language arts, mathematics, and science		X	X	X
Resources/materials		X	X	
Availability of computers, Internet			X	X
Use of technology			X	X
Activities and resources related to Response to Intervention programs			X	X
Teacher evaluation and grading practices		X	X	X
Parent involvement		X	X	X
Collegial relations and opportunities for professional development	X	X	X	X
Teacher's views on teaching, school climate, and environment	X	X	X	X
Teacher's experience, education, and background	X	X <sup>1</sup>	X	X

<sup>1</sup> In the spring of kindergarten, teachers new to the study were asked to complete a supplemental teacher-level questionnaire in order to collect information on their experience, education, and background that had been collected from other teachers in the fall. Teachers who provided information in the fall were not asked the same questions again in the spring.

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, spring 2011, and spring 2012.

Exhibit 2-5. General classroom teacher child-level questionnaire topics, by round of data collection in the ECLS-K: 2011: School years 2010–11 and 2011–12

Child-level questionnaire content	Fall kindergarten	Spring kindergarten	Fall first grade	Spring first grade	Spring first grade (kindergarten version)
Student and enrollment information	X	X	X	X	X
Summer assignments			X		
Specialized services and programs		X		X	X
Language and literacy skills and knowledge	X	X	X	X	X
Mathematical thinking skills and knowledge	X	X		X	X
Science skills and knowledge		X		X	
Social skills	X	X	X	X	X
Approaches to learning	X	X	X	X	X
Attention focusing and inhibitory control	X	X		X	X
Student-teacher relationship		X		X	X
Programs and services for the child		X		X	X
Prediction of child’s ultimate educational attainment				X	X
Parent involvement		X		X	X
Child’s primary teacher in reading, mathematics, science, and social studies				X	X

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, spring 2011, fall 2011, and spring 2012.

#### 2.1.4 Special Education Teacher Questionnaires

As in the kindergarten year, a set of special education teacher questionnaires was completed in the spring of the first-grade year for each participating child with an Individualized Education Program (IEP) or equivalent program on record with the school. 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. Similar to the model used for the general classroom teacher questionnaires, two self-administered hard-copy instruments were used: a teacher-level questionnaire that collected information on the special education teacher’s background, education, teaching experience, teaching position, and caseload; and a child-level questionnaire that collected information on the individual study child’s disabilities, placement, and services received.

The special education teacher-level questionnaire used in first grade was almost identical to the questionnaire used in the spring of kindergarten. The only difference is that while the kindergarten teacher-level questionnaire asked a general question about courses taken related to Response to Intervention (RtI), the first-grade teacher-level questionnaire contained a more detailed item on coursework, listing course topics central to RtI programs.

The special education teacher child-level questionnaire addressed the following topics in both kindergarten and first grade: current services received through an IEP; child's disabilities (primary and all those for which the child has received services); IEP goals and meeting those goals; classroom placement; expectations regarding general education goals; and the special education teacher's communication with other teachers and the child's parents. Two new items were added for first grade: the child's grade placement and his or her participation in assessments. An item on prekindergarten services the child had received, which was included in the spring of kindergarten, was omitted from the first-grade child-level questionnaire.

Exhibit 2-6 shows the topics addressed in the kindergarten and first-grade special education teacher-level and child-level questionnaires by data collection round.



Exhibit 2-6. Special education teacher questionnaire topics, by round of data collection in the ECLS-K: 2011: School years 2010–11 and 2011–12

Special education teacher questionnaire content	Spring kindergarten	Spring first grade
<b>Teacher-level topics</b>		
Teacher characteristics	X	X
Teacher education and experience	X	X
Teacher position, assignment, and caseload	X	X
<b>Child-level topics</b>		
Prekindergarten services received through an Individualized Education Program (IEP)	X	
Current services received through an IEP	X	X
Child’s disabilities (primary disability and those for which services have been received)	X	X
Goals of the child’s IEP and extent to which goals have been met	X	X
Classroom placement	X	X
Special education teacher’s communication with other teachers and the child’s parents	X	X
Expectations regarding general education goals	X	X
Grade placement		X

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 and spring 2012.

### 2.1.5 School Administrator Questionnaires

In first grade, there were two versions of the school administrator questionnaire (SAQ): (1) a version for schools that were new to the study or for which a completed school administrator questionnaire was not received in the kindergarten year and (2) a shorter version for schools for which a school administrator questionnaire was completed in the kindergarten year. To reduce respondent burden, the shorter version did not include questions for which the responses were not expected to change significantly from year to year, for example, grades offered by the school, type of school (public, private, magnet, charter), adequacy of facilities, and grade retention policies.

The school administrator questionnaires were hard-copy paper questionnaires completed by the school principal/administrator and/or his or her designee during the spring data collection round of the first-grade year. This is similar to the procedures used in the kindergarten rounds, where the school

administrator questionnaire was only fielded in the spring of kindergarten. The school administrator questionnaires addressed the following topics: school characteristics, facilities, and resources; school-family-community connections; school policies and practices; school programs for particular populations (language minority children and children with special needs); Federal programs; staffing and teacher characteristics; and school administrator characteristics and background.

While the school administrator questionnaires were very similar in the kindergarten and first-grade years, the questionnaires for first grade included new items related to charter schools; the implementation of Response to Intervention (RtI) programs; numbers of students evaluated and found eligible for IEPs; the method of determining eligibility for an IEP; monetary incentives for teachers for improved student performance; and whether or not the administrator spoke a language other than English during school hours with students and their families. Some items were revised, including school-based programs for parents and families; neighborhood problems; school safety issues; and recent changes at the school such as changes in funding, enrollment, student mobility, and staffing. Items that related specifically to kindergarten were either reworded to refer to first grade or, if not relevant to first grade, omitted from the first-grade questionnaires; for example, whether the school had a half-day or full-day kindergarten program and kindergarten readiness/placement testing. Other items that were omitted in first grade were about the availability of computers and Internet access since the study also gathers this information from the general classroom teachers.

Exhibit 2-7 shows the topics addressed in the kindergarten and first-grade school administrator questionnaires by data collection round.

Exhibit 2-7. School administrator questionnaire topics, by round of data collection in the ECLS-K:2011: School years 2010–11 and 2011–12

School administrator questionnaire content	Spring kindergarten	Spring first grade (new schools)	Spring first grade (returning schools)
School characteristics, facilities, and resources	X	X	X
School-family-community connections	X	X	X
School policies and practices	X	X	X
Response to Intervention programs		X	X
School programs for particular populations (language minority children and children with special needs)	X	X	X
Federal programs	X	X	X
Staffing and teacher characteristics	X	X	X
School administrator characteristics and background	X	X	X

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 and spring 2012.

### 2.1.6 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 2-8 lists these copyrighted instruments and identifies the copyright holder for each.

Exhibit 2-8. Copyright-protected instruments in ECLS-K:2011 first-grade year

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>preLas</i> 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) Social Skills Rating System (SSRS)	Samuel Putnam and Mary Rothbart 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 data collection methods used for the fall and spring first-grade rounds of the ECLS-K:2011 were the same as those used in the fall and spring kindergarten rounds, with just a few exceptions described below. Please refer to the *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* (NCES 2015-074) (Tourangeau et al. 2015) for an overview of the

study procedures for school recruitment, field staff training, school contact in the fall, data collection, tracing activities, and data collection quality control. More detailed information about data collection methods can be found in the *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), Kindergarten Methodology Report* (Tourangeau et al. forthcoming).

### 2.2.1 Differences in Data Collection Methods Between Kindergarten and First Grade

**School recruitment:** For first grade, data collection staff team leaders recruited only new transfer schools, meaning those schools to which study children moved between kindergarten and the fall of first grade or between the fall and spring of first grade. Recruitment was not repeated for schools that had participated in the kindergarten year.

**Field staff training:** Training for team leaders, school recruiters, assessors, and parent interviewers for the fall first-grade collection was conducted in person. Team leader and assessor training for the spring first-grade collection was also held in person, but parent-interviewer training was conducted via Web-Ex<sup>12</sup> and telephone role plays.<sup>13</sup>

**Advance school contact in the fall:** All schools, including those that were not part of the fall subsample, were contacted in the fall to arrange for the spring assessments and to confirm that children who had attended the school in kindergarten were still enrolled. If a child was not still enrolled in the school, the school was asked to provide any updated contact information, including the child's new school, if the school had such information.

**Data collection:** Data collection procedures used in first grade were the same as those used during the kindergarten year. As described above, however, revisions were made to the instruments that had been used in the kindergarten rounds.

**Tracing activities:** In addition to the tracing activities described in the base-year User's Manual, birthday cards were mailed to sampled children. This helped to maintain a positive relationship

---

<sup>12</sup> WebEx is an Internet-based web conferencing tool for sharing presentations in any format with an audience in multiple remote locations. The CAPI application was shown to interviewers using this tool.

<sup>13</sup> Telephone role plays were conducted by having trainees work one-on-one interviewing Westat Telephone Research Center (TRC) staff. Members of the TRC were first trained by home office staff on project-specific interviewing techniques and providing appropriate feedback to interviewers.

with the study children and their families. It also served as a way to obtain updated home addresses; the project staff asked the post office for a forwarding address if the children had moved, and the card also acted as a prompt for parents to let project staff know about any address changes.

**Quality control:** Quality control and validation procedures remained the same as in the kindergarten round.

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

This chapter provides information about the direct and indirect assessment data from the kindergarten and first-grade year of the ECLS-K:2011. Although this manual primarily focuses on the first-grade collections, information is provided about the kindergarten assessment data for two main reasons: (1) it is expected that many analysts will be interested in including both kindergarten and first-grade assessment data in their analyses, and (2) some kindergarten scores have been recalculated since the release of the *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), Restricted-Use Kindergarten Data File and Electronic Codebook* (NCES 2013-060) (U.S. Department of Education, National Center for Education Statistics 2013). The chapter begins with a description of the direct cognitive assessments, providing information about the scores available in 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, and Science

The kindergarten and first-grade direct cognitive assessments measured children’s knowledge and skills in reading, mathematics, and science. This section presents information about the assessment scores available in 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 (ECLS-K:2011), Kindergarten Psychometric Report* (Najarian et al. forthcoming) and in the *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), First-Grade and Second-Grade 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.

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

Broad-based scores using the full set of items administered in the kindergarten and first-grade assessments 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 kindergarten and in reading, mathematics, and science in first grade) 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 (spring kindergarten) 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 administration of the assessment. In those cases, IRT was used to estimate the probability that a child would have provided a correct response when no response was available. IRT uses the pattern of right and wrong 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

---

<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.



different level of the second-stage form of a given domain in the spring data collection than in the fall data collection).

Two methods were used to calculate the scores provided in the data file. For scores *within* a grade (e.g., the fall and spring of first grade), a concurrent calibration model was applied where, for each domain, fall and spring data were pooled and calibrated together. Then, a chain-linking approach was used to place ability estimates (theta) and item parameters for the within-grade scores on the same scale in order to link the scores across grades. As a result, the ability estimates and assessment scores within each domain are directly comparable at each measured time point.

The first-grade reading assessment forms differed somewhat from those in kindergarten due to the inclusion of several reading passages and associated item sets. As a result of this design difference, the calibration of items in the reading assessment required a more specialized treatment because of the possibility of local item dependence (e.g., the probability of success on items associated with the same passage may not be independent). Items associated with passage sets were treated as a single, polytomous item in the IRT calibration. This change in methodology required a re-calibration and re-reporting of the kindergarten reading scores since the release of the base-year file. Therefore, the kindergarten reading theta scores included in the K-1 data file are calculated differently than the previously released kindergarten theta scores and replace the kindergarten reading theta scores included in the base-year data file. The modeling approach stayed the same for mathematics and science, so the recalculation of kindergarten mathematics and science theta scores was not needed.

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

A theta score is provided in the ECLS-K:2011 data file for each child who participated in the direct cognitive assessment for each cognitive domain assessed and for each administration. The theta score<sup>2</sup> is an 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 SERS are provided in the data file for the fall and spring kindergarten data collection rounds. A science theta score is provided for only spring kindergarten because the science assessment was not administered in the fall. Scores for all domains (reading, mathematics, science, and

---

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

SERS) are provided for both the fall and spring first-grade rounds. 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 classical item theory, in which 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 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 because more information about their actual performance is available, thereby making estimates of their ability more precise.)

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, value 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, 2 for the spring kindergarten round, 3 for the fall first-grade round, and 4 for the spring first-grade 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.

Table 3-1. Direct cognitive assessment: IRT theta scores, fall and spring kindergarten and fall and spring first-grade assessments: School years 2010–11 and 2011–12

Variable	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X1RTHETK1	X1 READING THETA-K1	15,669	-6.0–+6.0	-0.56	0.844
X2RTHETK1	X2 READING THETA-K1	17,185	-6.0–+6.0	0.44	0.774
X3RTHETK1	X3 READING THETA-K1	5,194	-6.0–+6.0	0.87	0.778
X4RTHETK1	X4 READING THETA-K1	15,115	-6.0–+6.0	1.62	0.744
X1SERSTHK1	X1 SERS THETA-K1	312	-6.0–+6.0	-0.41	0.856
X2SERSTHK1	X2 SERS THETA-K1	147	-6.0–+6.0	0.68	0.670
X3SERSTHK1	X3 SERS THETA-K1	33	-6.0–+6.0	0.90	0.745
X4SERSTHK1	X4 SERS THETA-K1	17	-6.0–+6.0	1.08	0.636
X1MTHETK1	X1 MATH THETA-K1	15,595	-6.0–+6.0	-0.52	0.932
X2MTHETK1	X2 MATH THETA-K1	17,143	-6.0–+6.0	0.42	0.776
X3MTHETK1	X3 MATH THETA-K1	5,222	-6.0–+6.0	0.91	0.821
X4MTHETK1	X4 MATH THETA-K1	15,103	-6.0–+6.0	1.64	0.825
X2STHETK1	X2 SCIENCE THETA-K1	16,936	-6.0–+6.0	0.00	0.891
X3STHETK1	X3 SCIENCE THETA-K1	5,180	-6.0–+6.0	0.43	0.932
X4STHETK1	X4 SCIENCE THETA-K1	15,072	-6.0–+6.0	0.92	0.950

NOTE: X1 and X2 estimates are weighted by W1C0, X3 estimates are weighted by W3CF3P\_30, and X4 estimates are weighted by W4CF4P\_20. The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, fall 2011, and spring 2012.

Table 3-2. Direct cognitive assessment: IRT standard errors of measurement (*SEM*), fall and spring kindergarten and fall and spring first-grade assessments: School years 2010–11 and 2011–12

Variable	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X1RSETHK1	X1 READING STD ERR OF THETA-K1	15,669	0.0–6.0	0.36	0.092
X2RSETHK1	X2 READING STD ERR OF THETA-K1	17,185	0.0–6.0	0.26	0.077
X3RSETHK1	X3 READING STD ERR OF THETA-K1	5,194	0.0–6.0	0.23	0.057
X4RSETHK1	X4 READING STD ERR OF THETA-K1	15,115	0.0–6.0	0.22	0.051
X1SERSSEK1	X1 SERS STD ERR OF THETA-K1	312	0.0–6.0	0.40	0.142
X2SERSSEK1	X2 SERS STD ERR OF THETA-K1	147	0.0–6.0	0.27	0.077
X3SERSSEK1	X3 SERS STD ERR OF THETA-K1	33	0.0–6.0	0.32	0.128
X4SERSSEK1	X4 SERS STD ERR OF THETA-K1	17	0.0–6.0	0.30	0.112
X1MSETHK1	X1 MATH STD ERR OF THETA-K1	15,595	0.0–6.0	0.36	0.101
X2MSETHK1	X2 MATH STD ERR OF THETA-K1	17,143	0.0–6.0	0.29	0.064
X3MSETHK1	X3 MATH STD ERR OF THETA-K1	5,222	0.0–6.0	0.28	0.048
X4MSETHK1	X4 MATH STD ERR OF THETA-K1	15,103	0.0–6.0	0.28	0.035
X2SSETHK1	X2 SCIENCE STD ERR OF THETA-K1	16,936	0.0–6.0	0.71	0.081
X3SSETHK1	X3 SCIENCE STD ERR OF THETA-K1	5,180	0.0–6.0	0.59	0.039
X4SSETHK1	X4 SCIENCE STD ERR OF THETA-K1	15,072	0.0–6.0	0.59	0.030

NOTE: X1 and X2 estimates are weighted by W1C0, X3 estimates are weighted by W3CF3P\_30, and X4 estimates are weighted by W4CF4P\_20. The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, fall 2011, and spring 2012.

### 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 were included in the kindergarten and first-grade assessments (that is, all of the 100 unique questions in the router and the three second-stage reading forms administered in kindergarten and in first grade; all of the 96 unique questions in the router and the three second-stage mathematics forms administered in kindergarten and in first grade; all of the 47 unique items administered in the router and three second-stage science forms in first grade and the single-stage kindergarten science form; and all 31 items administered in the single-stage SERS form [the same SERS assessment was used in all four data collection rounds]).

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 in every round are summed to create the overall scale score. Because the computed scale scores are sums of probabilities, the scores are not integers.

Gain scores in each domain may be obtained by subtracting the IRT scale scores at an earlier round from the IRT scale scores at a later round. For example, subtracting the fall kindergarten mathematics score from the spring kindergarten mathematics score would result in a gain score across the kindergarten year. Similarly, a gain score from kindergarten entry to the end of first grade would be obtained by subtracting the fall kindergarten mathematics score from the spring first-grade mathematics score.<sup>4</sup> 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).

---

<sup>4</sup> Note that for the science assessment, it is not possible to compute gain scores from the fall to the spring of the kindergarten year because the assessment was not administered in the fall kindergarten collection.

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

Table 3-3. Direct cognitive assessment: IRT scale scores, fall and spring kindergarten and fall and spring first-grade assessment: School years 2010–11 and 2011–12

Variable	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X1RSCALK1	X1 READING IRT SCALE SCORE-K1	15,669	0.0–100.0	37.13	9.457
X2RSCALK1	X2 READING IRT SCALE SCORE-K1	17,185	0.0–100.0	49.33	11.591
X3RSCALK1	X3 READING IRT SCALE SCORE-K1	5,194	0.0–100.0	56.21	13.489
X4RSCALK1	X4 READING IRT SCALE SCORE-K1	15,115	0.0–100.0	69.93	13.096
X1SERSSCK1	X1 SERS IRT SCALE SCORE-K1	312	0.0–31.0	12.75	5.343
X2SERSSCK1	X2 SERS IRT SCALE SCORE-K1	147	0.0–31.0	20.83	5.592
X3SERSSCK1	X3 SERS IRT SCALE SCORE-K1	33	0.0–31.0	23.43	6.011
X4SERSSCK1	X4 SERS IRT SCALE SCORE-K1	17	0.0–31.0	25.14	5.158
X1MSCALK1	X1 MATH IRT SCALE SCORE--K1	15,595	0.0–96.0	30.02	10.869
X2MSCALK1	X2 MATH IRT SCALE SCORE--K1	17,143	0.0–96.0	43.00	11.554
X3MSCALK1	X3 MATH IRT SCALE SCORE-K1	5,222	0.0–96.0	50.81	13.394
X4MSCALK1	X4 MATH IRT SCALE SCORE-K1	15,103	0.0–96.0	62.72	13.058
X2SSCALK1	X2 SCIENCE THETA-K1	16,936	0.0–47.0	20.93	5.418
X3SSCALK1	X3 SCIENCE THETA-K1	5,180	0.0–47.0	23.64	6.092
X4SSCALK1	X4 SCIENCE THETA-K1	15,072	0.0–47.0	26.95	6.362

NOTE: X1 and X2 estimates are weighted by W1C0, X3 estimates are weighted by W3CF3P\_30, and X4 estimates are weighted by W4CF4P\_20. SERS = Spanish early reading skills. The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, fall 2011, and spring 2012.

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

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 *preLAS* (Duncan and De Avila 1998) 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 *preLAS* were administered to all children in kindergarten, so all children have raw number-right scores for these two subtests in the fall and spring rounds. In first grade, however, the Simon Says and Art Show subtests of the *preLAS* were administered only to children who spoke a language other than English at home and

did not pass the *preLAS* in the prior round in which they were assessed.<sup>5</sup> Therefore, only a limited subsample of children have these scores in the fall and spring first-grade rounds.

A raw number-right score is provided for children's performance on the set of 20 English basic reading skills (EBRS) items. The EBRS items target specific early reading skills, predominantly letter recognition and letter sounds, with a few phonemic awareness, vocabulary, and word reading items. These items were administered to all children as part of the reading assessment routing test in kindergarten, so kindergarten EBRS scores are available for all children. However, in the fall and spring first-grade administrations of the reading assessment, the EBRS items were only administered to children whose performance on the routing items of the reading assessment routed them to the low- or middle-difficulty second-stage test. Children who were routed to the highest-difficulty second-stage test did not receive the EBRS items. Therefore, only a subsample of children have EBRS raw-number right scores in first grade.

Additionally, number-right scores are provided for the 10 items common to the EBRS and SERS for those children who were administered both assessments. Only Spanish-speaking children who did not obtain a high enough score on the *preLAS* 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, value ranges, weighted means, and standard deviations.

---

<sup>5</sup> For information on administration procedures, see chapter 2, section 2.1.1.

Table 3-4. Direct cognitive assessment: Raw number-right scores, fall and spring kindergarten and fall and spring first-grade assessments: School years 2010–11 and 2011–12

Variable	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X1PLSS	X1 PRELAS SIMON SAYS SCORE	15,784	0–10	9.18	1.754
X2PLSS	X2 PRELAS SIMON SAYS SCORE	17,215	0–10	9.60	1.120
X3PLSS	X3 PRELAS SIMON SAYS SCORE	114	0–10	6.44	2.917
X4PLSS	X4 PRELAS SIMON SAYS SCORE	102	0–10	6.94	2.131
X1PLART	X1 PRELAS ART SHOW SCORE	15,784	0–10	9.26	1.705
X2PLART	X2 PRELAS ART SHOW SCORE	17,215	0–10	9.54	1.274
X3PLART	X3 PRELAS ART SHOW SCORE	114	0–10	4.36	2.383
X4PLART	X4 PRELAS ART SHOW SCORE	102	0–10	4.13	2.217
X1PLTOT	X1 PRELAS TOTAL SCORE	15,784	0–20	18.43	3.184
X2PLTOT	X2 PRELAS TOTAL SCORE	17,215	0–20	19.14	2.178
X3PLTOT	X3 PRELAS TOTAL SCORE	114	0–20	10.80	4.879
X4PLTOT	X4 PRELAS TOTAL SCORE	102	0–20	11.07	3.178
X1EBRSTOT	X1 EBRS TOTAL NUMBER RIGHT	15,738	0–20	13.18	4.424
X2EBRSTOT	X2 EBRS TOTAL NUMBER RIGHT	17,195	0–20	17.06	2.976
X3EBRSTOT	X3 EBRS TOTAL NUMBER RIGHT	4,634	0–20	14.88	2.313
X4EBRSTOT	X4 EBRS TOTAL NUMBER RIGHT	9,431	0–20	15.51	1.766
X1EBRSCM	X1 EBRS NUMBER RIGHT COMMON ITEMS	336	0–10	3.21	2.583
X2EBRSCM	X2 EBRS NUMBER RIGHT COMMON ITEMS	154	0–10	4.13	3.129
X3EBRSCM	X3 EBRS NUMBER RIGHT COMMON ITEMS	59	0–10	5.32	2.546
X4EBRSCM	X4 EBRS NUMBER RIGHT COMMON ITEMS	40	0–10	5.24	3.132
X1SERSCM	X1 SERS NUMBER RIGHT COMMON ITEMS	316	0–10	4.72	2.992
X2SERSCM	X2 SERS NUMBER RIGHT COMMON ITEMS	148	0–10	8.05	2.037
X3SERSCM	X3 SERS NUMBER RIGHT COMMON ITEMS	33	0–10	8.46	2.157
X4SERSCM	X4 SERS NUMBER RIGHT COMMON ITEMS	17	0–10	8.58	2.087

NOTE: X1 and X2 estimates are weighted by W1C0, X3 estimates are weighted by W3CF3P\_30, and X4 estimates are weighted by W4CF4P\_20. EBRS = English basic reading skills. SERS = Spanish early reading skills. The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, fall 2011, and spring 2012.

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

Several variables indicating how children were routed through the assessment are available in the data file. X3FLSCRN and X4FLSCRN 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. For the comparable kindergarten variables (X1FLSCRN and X2FLSCRN), a code of 2, *Other language speaker (not Spanish/English)*, was used for children who spoke a non-English language other than Spanish and did not demonstrate sufficient basic English skills, as determined by their score on the *preLAS*, to take the assessments in English. The cognitive assessment ended for these children after the EBRS section of the reading assessment. However, in the fall and spring of first grade, there were no children who spoke a non-English language other than Spanish who did not demonstrate sufficient English skills; therefore, no cases are coded 2 on X3FLSCRN and X4FLSCRN. X3EXDIS and X4EXDIS 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 for these reasons, and 0, for all other children.

### **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 of correlations between achievement and child, family, and school characteristics. The fall kindergarten, spring kindergarten, fall first-grade, and spring first-grade 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. Or when looking at growth from kindergarten entry to the end of first grade, an analyst could subtract the fall kindergarten score from the spring first-grade 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>6</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, spring kindergarten, fall first-grade, and spring first-grade 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. Or when looking at growth from kindergarten entry to the end of first grade, an analyst could subtract the fall kindergarten score from the spring first-grade 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. For the kindergarten assessments, when all children received the *preLAS* regardless of language background, 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. For the first-grade assessments, the *preLAS* was only administered to those children who spoke a language other than English at home and had failed the *preLAS* in the prior round in which they were assessed. Therefore, analysts should be aware that only a subset of cases have valid *preLAS* scores in the first-grade rounds. 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.
- In the fall and spring of kindergarten, the 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. In the first-grade rounds, only children who were routed into the low- or middle-difficulty second-stage test (based

---

<sup>6</sup> It is recommended that analysts review the distributions for normality. In assessments where the number of items or number of observations is low, the normality of the distribution may be affected. In the ECLS-K:2011, both the science and SERS distributions deviated from normal, due to the limited number of items and observations, respectively.

on their performance on the 30 items in the reading routing assessment) have an EBRS raw-number right score, because children routed into the high form did not receive the EBRS items (for more information on routing through the assessment, see chapter 2, section 2.1.1). 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 *preLAS* subtest items, children who were not English language learners tended to do well on these items on 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 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 in both kindergarten and first grade, 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. Also, analysts interested in looking at these scores across time should be aware that the number of children with these scores is lower in first grade than in kindergarten, because more Spanish-speakers were routed through the assessments in English in first grade.

### **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 collections, and from March to June for the spring rounds. Children assessed in December 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 in a given grade 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 kindergarten scale score could be included in a model using the spring kindergarten 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>7</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 and fall and spring first grade.

---

<sup>7</sup> Diversity in the science assessments is by design. To develop measures of children's expected ability levels in 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 in science are not as highly correlated as those in reading and mathematics.

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 *preLAS* Simon Says and Art Show, EBRS, and EBRS/SERS common-number correct scores ranged from .64 to .99. The coefficients for several of the scores based on 10 items are relatively low due to the low number of observations and items in the set.

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

Table 3-5. Reliability of IRT-based scores: IRT theta and scale scores (overall ability estimates), by round of data collection and domain: School years 2010–11 and 2011–12

Domain	Number of items	Fall kindergarten	Spring kindergarten	Fall first grade	Spring first grade
Reading	100	.95	.95	.95	.93
Spanish early reading skills (SERS)	31	.99	.99	.91	.99
Mathematics	96	.92	.94	.93	.93
Science	47	†	.75	.83	.83

† 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, spring 2011, fall 2011, and spring 2012.

Table 3-6. Reliability of raw number right scores, by round of data collection and domain: School years 2010–11 and 2011–12

Domain	Number of items	Fall kindergarten	Spring kindergarten	Fall first grade	Spring first grade
<i>preLAS</i> Simon Says Raw Number Right	10	.85	.79	.85	.64
<i>preLAS</i> Art Show Raw Number Right	10	.86	.82	.64	.64
<i>preLAS</i> Total Raw Number Right	20	.91	.89	.89	.81
EBRS Raw Number Right	20	.87	.97	.94	.99
EBRS/SERS Common Raw Number Right, EBRS	10	.80	.69	.92	.96
EBRS/SERS Common Raw Number Right, SERS	10	.87	.84	.86	.94

NOTE: EBRS = English basic reading skills. SERS = Spanish early reading skills.

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, spring 2011, fall 2011, and spring 2012.

### **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 and first-grade 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 and/or first grade.

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, nonambiguity 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 and first-grade 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* (Woodcock, McGrew, and Mather 2001), respectively. The same versions of the *Dimensional Change Card Sort* and the Numbers Reversed tasks were administered in fall and spring of the kindergarten year and fall and spring of first grade.

### 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 to follow. 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* for fall and spring kindergarten and fall and spring first grade are provided in the ECLS-K:2011 K-1 data file. There are six variables with item-level results for the color game, six variables with item-level results for the shape game, and six variables with item-level results for the Border Game. There were four practice items administered to children, but the item-level results from these practice items are not included in 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, his or her data for these scores would be coded as missing. 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." Similarly, variable names for item-level data from the fall and spring first-grade assessments begin with "C3" and "C4," respectively.

Using scoring rules provided by the developers, four scale scores were developed from the *Dimensional Change Card Sort* data for the fall and spring kindergarten and the fall and spring first-grade

rounds of data collection: the pre-switch score, the post-switch score, the Border Game score, and a total score. The pre-switch score is the number of cards the child correctly sorted by color (i.e., the first phase of the assessment). 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). 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>8</sup> A final combined scale score reflects the totals for the three tasks (i.e., the Color, Shape, and Border Games). The developer of the *Dimensional Change Card Sort* recommends using the overall score to assess general performance.

**Note that the total scores included in the K-1 data file are calculated differently than what was recommended for calculation of this score in the base-year user’s manual.** The *User’s Manual for the ECLS-K:2011 Kindergarten Data File and Electronic Codebook, Public Version* (Tourangeau et al. 2015) noted that the *Dimensional Change Card Sort* developer recommended that researchers create a single *Dimensional Change Card Sort* composite score by summing the post-switch score and the Border Game score and use that combined score in analyses. After the release of the kindergarten-year file, further consideration was given to the fall and spring kindergarten data (where 1,038 cases scored 0 on the post-switch score in fall kindergarten and 457 cases scored 0 on the post-switch score in spring kindergarten). The *Dimensional Change Card Sort* developer subsequently recommended including the pre-switch scores in the calculation of the total score in order to better capture variability at the lower end of ability levels. Therefore, the total scores included in the K-1 data file reflect children’s performance across the Color, Shape, and Border Games.

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 and into the same score variables.

The variable names, descriptions, value ranges, weighted means, and standard deviations for the kindergarten and first-grade *Dimensional Change Card Sort* scores available in the data file are shown in table 3-7.

---

<sup>8</sup> All children initially attempted six Color Game trials, and then moved to the Shape Game. 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., nonmissing) data for the post-switch score is higher than the *n* with valid (i.e., nonmissing) 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).

Table 3-7. *Dimensional Change Card Sort* variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12

Variable name	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X1CSPRES	X1 Card Sort Pre-switch score	15,604	0–6	5.81	0.686
X2CSPRES	X2 Card Sort Pre-switch score	17,152	0–6	5.85	0.632
X3CSPRES	X3 Card Sort Pre-switch score	5,222	0–6	5.91	0.449
X4CSPRES	X4 Card Sort Pre-switch score	15,109	0–6	5.91	0.444
X1CSPSSC	X1 Card Sort Post-switch score	15,604	0–6	5.23	1.679
X2CSPSSC	X2 Card Sort Post-switch score	17,150	0–6	5.55	1.210
X3CSPSSC	X3 Card Sort Post-switch score	5,222	0–6	5.74	0.881
X4CSPSSC	X4 Card Sort Post-switch score	15,109	0–6	5.80	0.717
X1CSBGSC	X1 Card Sort Border Game score	13,279	0–6	3.70	1.185
X2CSBGSC	X2 Card Sort Border Game score	15,688	0–6	4.10	1.314
X3CSBGSC	X3 Card Sort Border Game score	4,931	0–6	4.45	1.326
X4CSBGSC	X4 Card Sort Border Game score	14,426	0–6	4.75	1.279
X1DCCSTOT	X1 Card Sort Combined score	15,604	0–18	14.18	3.343
X2DCCSTOT	X2 Card Sort Combined score	17,149	0–18	15.14	2.815
X3DCCSTOT	X3 Card Sort Combined score	5,222	0–18	15.89	2.293
X4DCCSTOT	X4 Card Sort Combined score	15,109	0–18	16.29	2.075

NOTE: X1 and X2 estimates are weighted by W1C0, X3 estimates are weighted by W3CF3P\_30, and X4 estimates are weighted by W4CS4P\_20. The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, fall 2011, and spring 2012.

### 3.2.1.1 *Dimensional Change Card Sort Data Flags*

Two flags indicate the presence or absence of *Dimensional Change Card Sort* data in first grade. X3DCCSFLG and X4DCCSFLG indicate the presence of first-grade data for the fall and spring, respectively.

### 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 for the fall and spring of kindergarten and the fall and spring of first grade are provided in the ECLS-K:2011 K-1 data file. The maximum number of items any child was administered 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; and 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, his or her case would have a missing code for the Numbers Reversed scores. Variable names for the item-level 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.” Similarly, variable names for item-level data from the fall and spring first-grade assessments begin with “C3” and “C4,” respectively. 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. Researchers who want to account for language of administration in their analyses can use the variables X1FLSCRN, X2FLSCRN, X3FLSCRN, and X4FLSCRN, which are also in the data file, to identify which children were administered Numbers Reversed in English and which children were administered Numbers Reversed in Spanish.

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.

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>9</sup>

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 Tests of Cognitive Abilities (Woodcock-Johnson 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 of 500, and most older children would be expected to have scores above the mean of 500. Also, as a child develops with age, it would be expected that his or her *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

---

<sup>9</sup> More information on these publisher scores can be found in the *Woodcock-Johnson III Tests of Achievement Examiner's Manual: Standard and Extended Batteries* (Mather and Woodcock 2001).

administrations of the task; nevertheless, 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  $W$  score on the Spanish administration is 393 (equivalent to raw score of 0). While this difference in the  $W$  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. As noted above, researchers who want to account for language of administration in their analyses can use the variables X1FLSCRN, X2FLSCRN, X3FLSCRN, and X4FLSCRN, which are also in the data file, to identify which children were administered Numbers Reversed in English and which children were administered Numbers Reversed in Spanish.

Although the  $W$  score is reflective of the average performance of 10-year-olds, and 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 6 or 7 years old during the first-grade 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 measurable by the *Woodcock-Johnson III* Numbers Reversed task, the study will be able to compare their baseline score (fall kindergarten and/or spring kindergarten 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 correct. 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). In the fall of first grade, less than 13 percent scored at the lowest scalable score, and only 6 percent scored at the lowest scalable score in the spring of first grade. This shows a general trend of improvement over time.

Another factor that may contribute to the large number of children scoring 403 (and 393 for Spanish) in kindergarten 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 conducting analyses, 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.

For the first-grade data collection, assessor training for the Numbers Reversed task was changed to improve the consistency and clarity of administration of the practice items. The instructions trainers provided to the assessors emphasized the need to present practice items consistently and to present multiple practice items when necessary. More information about the Numbers Reversed scoring and data can be found in the *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 *same-aged* 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 0 to 100 relative to the performance of subjects in the *Woodcock-Johnson III* norming sample that is at the same age as the ECLS-K:2011 subjects.

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, researchers who want to account for language of administration in their analyses can use the variables X1FLSCRN, X2FLSCRN, X3FLSCRN, and X4FLSCRN to identify language.

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 among 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 age-expected 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, spring kindergarten, fall first-grade, and spring first-grade 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 *Woodcock-Johnson 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 *Woodcock-Johnson III* norming sample.<sup>10</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 norming sample.

Table 3-8. Numbers Reversed variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12

Variable name	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X1NRWABL	X1 Numbers Reversed W-Ability Score	15,598	393-603	432.56	30.028
X1NRSSCR	X1 Numbers Reversed Standard Score	14,445	45-175	93.10	16.510
X1NRPERC	X1 Numbers Reversed Percentile Rank	14,445	0-100	37.89	31.786
X2NRWABL	X2 Numbers Reversed W-Ability Score	17,147	393-603	449.49	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
X3NRWABL	X3 Numbers Reversed W-Ability	5,222	393-603	458.42	27.990
X3NRSSCR	X3 Numbers Reversed Standard Score	5,221	37-197	94.21	16.969
X3NRPERC	X3 Numbers Reversed Percentile Rank	5,221	0-100	41.23	28.832
X4NRWABL	X4 Numbers Reversed W-Ability	15,107	393-603	470.07	24.607
X4NRSSCR	X4 Numbers Reversed Standard Score	15,102	35-197	96.23	16.280
X4NRPERC	X4 Numbers Reversed Percentile Rank	15,102	0-100	44.44	27.975

NOTE: X1 and X2 estimates are weighted by W1C0, X3 estimates are weighted by W3CF3P\_30, and X4 estimates are weighted by W4CF4P\_20. The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, fall 2011, and spring 2012.

### 3.2.2.1 Numbers Reversed Data Flags

Two flags indicate the presence or absence of *Numbers Reversed* data. X3NRFLG and X4NRFLG indicate the presence of first-grade data for the fall and spring, respectively.

## 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

<sup>10</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).

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 years 2010–11 and 2011–12

Value	Response	Description
1	Not yet	Child <i>has not yet</i> demonstrated skill, knowledge, or behavior.
2	Beginning	Child is <i>just beginning</i> to demonstrate skill, knowledge, or behavior but does so very inconsistently.
3	In progress	Child demonstrates skill, knowledge, or behavior <i>with some regularity</i> but varies in level of competence.
4	Intermediate	Child demonstrates skill, knowledge, or behavior <i>with increasing regularity and average competence</i> but is not completely proficient.
5	Proficient	Child demonstrates skill, knowledge, or behavior <i>competently and consistently</i> .
NA	Not applicable or skill not yet taught	Skill, knowledge, or behavior has <i>not been introduced</i> 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, spring 2011, fall 2011, and spring 2012.

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 important, 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 in the data file along with other child-level teacher questionnaire data.

### 3.4 Teacher-Reported Social Skills

In the fall kindergarten, spring kindergarten, fall first-grade, and spring first-grade collections, teachers reported how often their ECLS-K:2011 children 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>11</sup> and were included in the self-administered child-level teacher questionnaire. The social skills battery includes some items taken verbatim from the *Social Skills Rating System*, some items that are modifications of original *Social Skills Rating Systems* items, and some items that measure the same kinds of skills and behaviors captured in the *Social Skills Rating System* 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 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 numbers 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 items), externalizing 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 interacted with others in a positive way more often). Variable names for the 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>11</sup> The Social Skills Rating System is a copyrighted instrument (1990 NCS Pearson) and has been adapted with permission.



Table 3-10. Teacher-reported social skills scales variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12

Variable name	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X1TCHCON	X1 Teacher Report Self-Control	13,550	1–4	3.07	0.629
X1TCHPER	X1 Teacher Report Interpersonal Skills	13,708	1–4	2.98	0.639
X1TCHEXT	X1 Teacher Report Externalizing Problem Behaviors	14,385	1–4	1.61	0.631
X1TCHINT	X1 Teacher Report Internalizing Problem Behaviors	14,239	1–4	1.47	0.494
X2TCHCON	X2 Teacher Report Self-Control	15,796	1–4	3.17	0.637
X2TCHPER	X2 Teacher Report Interpersonal Skills	15,799	1–4	3.13	0.650
X2TCHEXT	X2 Teacher Report Externalizing Problem Behaviors	15,903	1–4	1.64	0.639
X2TCHINT	X2 Teacher Report Internalizing Problem Behaviors	15,865	1–4	1.51	0.498
X3TCHCON	X3 Teacher Report Self-Control	4,658	1–4	3.21	0.591
X3TCHPER	X3 Teacher Report Interpersonal Skills	4,724	1–4	3.14	0.613
X3TCHEXT	X3 Teacher Report Externalizing Problem Behaviors	4,964	1–4	1.67	0.590
X3TCHINT	X3 Teacher Report Internalizing Problem Behaviors	4,848	1–4	1.48	0.483
X4TCHCON	X4 Teacher Report Self-Control	13,202	1–4	3.21	0.621
X4TCHPER	X4 Teacher Report Interpersonal Skills	13,288	1–4	3.14	0.657
X4TCHEXT	X4 Teacher Report Externalizing Problem Behaviors	13,398	1–4	1.73	0.619
X4TCHINT	X4 Teacher Report Internalizing Problem Behaviors	13,306	1–4	1.55	0.508
X4KTCHCON	X4K Teacher Report Self-Control	418	1–4	3.09	0.616
X4KTCHPER	X4K Teacher Report Interpersonal Skills	418	1–4	3.04	0.671
X4KTCHEXT	X4K Teacher Report Externalizing Problem Behaviors	419	1–4	1.78	0.614
X4KTCHINT	X4K Teacher Report Internalizing Problem Behaviors	418	1–4	1.62	0.498

NOTE: X1 and X2 estimates are weighted by W1C0, X3 estimates are weighted by W3CF3P3T0, and X4 estimates are weighted by W4CS4P\_2T0. Items contributing to the teacher-reported social skill scales were adapted with permission from the Social Skills Rating System (©1990 NCS Pearson). The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, fall 2011, and spring 2012.

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 years 2010–11 and 2011–12

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
X3TCHCON	X3 Teacher Report Self-Control	4	.79
X3TCHPER	X3 Teacher Report Interpersonal Skills	5	.85
X3TCHEXT	X3 Teacher Report Externalizing Problem Behaviors	5	.88
X3TCHINT	X3 Teacher Report Internalizing Problem Behaviors	4	.77
X4TCHCON	X4 Teacher Report Self-Control	4	.81
X4TCHPER	X4 Teacher Report Interpersonal Skills	5	.86
X4TCHEXT	X4 Teacher Report Externalizing Problem Behaviors	5	.88
X4TCHINT	X4 Teacher Report Internalizing Problem Behaviors	4	.76
X4KTCHCON	X4K Teacher Report Self-Control	4	.79
X4KTCHPER	X4K Teacher Report Interpersonal Skills	5	.88
X4KTTCHEXT	X4K Teacher Report Externalizing Problem Behaviors	5	.87
X4KTCHINT	X4K Teacher Report Internalizing Problem Behaviors	4	.73

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, spring 2011, fall 2011, and spring 2012.

### 3.5 Parent-Reported Social Skills

In the fall kindergarten, spring kindergarten, and spring first-grade 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

numbers 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 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.

Table 3-12. Parent-reported social skills scales variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and spring first grade: School years 2010–11 and 2011–12

Variable name	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X1PRNCON	X1 Parent Report Self-Control	13,205	1–4	2.89	0.523
X1PRNSOC	X1 Parent Report Social Interaction	13,232	1–4	3.44	0.559
X1PRNSAD	X1 Parent Report Sad/Lonely	13,209	1–4	1.48	0.376
X1PRNIMP	X1 Parent Report Impulsive/Overactive	13,132	1–4	2.05	0.676
X2PRNCON	X2 Parent Report Self-Control	13,254	1–4	2.95	0.505
X2PRNSOC	X2 Parent Report Social Interaction	13,274	1–4	3.45	0.543
X2PRNSAD	X2 Parent Report Sad/Lonely	13,226	1–4	1.47	0.379
X2PRNIMP	X2 Parent Report Impulsive/Overactive	13,154	1–4	1.92	0.679
X4PRNCON	X4 Parent Report Self-Control	12,555	1–4	3.02	0.495
X4PRNSOC	X4 Parent Report Social Interaction	12,585	1–4	3.45	0.544
X4PRNSAD	X4 Parent Report Sad/Lonely	12,542	1–4	1.46	0.386
X4PRNIMP	X4 Parent Report Impulsive/Overactive	12,458	1–4	1.88	0.664

NOTE: X1 and X2 estimates are weighted by W1C0, and X4 estimates are weighted by W4CS4P\_40. Items contributing to the parent-reported social skills scales were adapted with permission from the *Social Skills Rating System* (SSRS) (©1990 NCS Pearson). The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, and spring 2012.

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 social skills scales reliability estimates: School years 2010–11 and 2011–12

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
X4PRNCON	X4 Parent Report Self-Control	5	.73
X4PRNSOC	X4 Parent Report Social Interaction	3	.69
X4PRNSAD	X4 Parent Report Sad/Lonely	4	.62

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, spring 2011, and spring 2012.

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

The fall kindergarten, spring kindergarten, fall first-grade, and spring first-grade 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 children 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>12</sup> These items were presented in the same item set as the social skills items adapted from 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. A score was computed when the respondent provided a rating on at least four of the seven 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 teacher Approaches to Learning scale scores 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 in the data file along with the other child-level teacher questionnaire data.

<sup>12</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 used in the kindergarten rounds of the ECLS-K. The seventh item (i.e., follows classroom rules) was added in the first-grade round of the ECLS-K.

Table 3-14. Teacher-reported Approaches to Learning scale variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12

Variable name	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X1TCHAPP	X1 Teacher Report Approaches to Learning	14,770	1–4	2.93	0.680
X2TCHAPP	X2 Teacher Report Approaches to Learning	15,978	1–4	3.09	0.690
X3TCHAPP	X3 Teacher Report Approaches to Learning	5,022	1–4	3.04	0.677
X4TCHAPP	X4 Teacher Report Approaches to Learning	13,449	1–4	3.07	0.700
X4KTCHAPP	X4K Teacher Report Approaches to Learning	417	1–4	2.94	0.704

NOTE: X1 and X2 estimates are weighted by W1C0, X3 estimates are weighted by W3CF3P3T0, and X4 estimates are weighted by W4CS4P\_2T0. The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, fall 2011, and spring 2012.

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

The fall kindergarten, spring kindergarten, and spring first-grade 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>13</sup> These items were asked within the same set of items as the social skills items adapted from 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 four of the six 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 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 kindergarten data collection, .72 for the spring kindergarten data collection, and .74 for the spring first-grade data collection. Additionally, the item-level data for the parent-reported Approaches to Learning items are included in the data file along with the other parent interview data.

<sup>13</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.

Table 3-15. Parent-reported Approaches to Learning scale variable names, descriptions, value ranges, weighted means, and standard deviations for fall and spring kindergarten and spring first grade: School years 2010–11 and 2011–12

Variable name	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X1PRNAPP	X1 Parent Report Approaches to Learning	13,220	1–4	3.18	0.474
X2PRNAPP	X2 Parent Report Approaches to Learning	13,241	1–4	3.14	0.485
X4PRNAPP	X4 Parent Report Approaches to Learning	12,554	1–4	3.08	0.497

NOTE: X1 and X2 estimates are weighted by W1C0, and X4 estimates are weighted by W4CS4P\_40. The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, and spring 2012.

### 3.8 *Children’s Behavior Questionnaire*

The fall kindergarten, spring kindergarten, and spring first-grade child-level teacher questionnaires included 12 items from the Short Form of the *Children’s Behavior Questionnaire* (Putnam and Rothbart 2006)<sup>14</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 derived from these items: (1) Attentional Focus and (2) Inhibitory Control. The scale scores were developed based on guidelines from the publisher and included all six items from the Attentional Focusing subscale and all six 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 four of the six 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, weighted means, and standard deviations for these scales are shown in table 3-

<sup>14</sup> The *Children’s Behavior Questionnaire* is a copyrighted instrument and has been used with permission.

16. The Attentional Focus Scale has a reliability estimate of .87 for both rounds of data collection in kindergarten, and .83 for spring of first grade. The Inhibitory Control scale also has a reliability estimate of .87 for both rounds of data collection in kindergarten, and .86 for spring of first-grade. 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 for fall and spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12

Variable name	Description	<i>n</i>	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
X4ATTNFS	X4 Teacher Report Attentional Focus	13,390	1–7	4.84	1.292
X4INBCNT	X4 Teacher Report Inhibitory Control	13,399	1–7	5.04	1.287
X4KATTNFS	X4K Teacher Report Attentional Focus	417	1–7	4.61	1.323
X4KINBCNT	X4K Teacher Report Inhibitory Control	417	1–7	4.88	1.267

NOTE: X1 and X2 estimates are weighted by W1C0, and X4 estimates are weighted by W4CS4P\_2T0. Items contributing to these scales come from the *Children's Behavior Questionnaire* (Putnam and Rothbart 2006). The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic 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, spring 2011, fall 2011, and spring 2012.

### 3.9 *Student-Teacher Relationship Scale*

The *Student-Teacher Relationship Scale* (Pianta 2001) is a 15-item, teacher-reported measure of closeness and conflict between the teacher and child. As part of the spring kindergarten and spring first-grade 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 author of the scale: 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 five of the seven or eight items that composed the scales. The Closeness Scale is a measure of the affection, warmth, and open communication that the teacher experiences with the student. The Conflict Scale 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. In the spring of kindergarten, the Conflict Scale had a reliability estimate of .89, and the Closeness Scale also had a reliability estimate of .89. In the spring of first grade, the reliability estimate for the Conflict Scale remained .89, while the reliability estimate for the Closeness Scale was .86. 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 for spring kindergarten and fall and spring first grade: School years 2010–11 and 2011–12

Variable name	Description	<i>n</i>	Range of possible values	Weighted mean	Standard deviation
X2CLSNESS	X2 Teacher Report Closeness	15,962	1–5	4.36	0.636
X2CNFLCT	X2 Teacher Report Conflict	15,960	1–5	1.63	0.802
X4CLSNESS	X4 Teacher Report Closeness	13,418	1–5	4.30	0.662
X4CNFLCT	X4 Teacher Report Conflict	13,422	1–5	1.64	0.792
X4KCLSNESS	X4K Teacher Report Closeness	418	1–5	4.27	0.693
X4KCNFLCT	X4K Teacher Report Conflict	418	1–5	1.82	0.875

NOTE: X1 and X2 estimates are weighted by W1C0, and X4 estimates are weighted by W4CS4P\_2T0. Items contributing to these scales come from the *Student-Teacher Relationship Scale* (Pianta, 2001). The unweighted sample *n* indicates the number of cases with valid data regardless of the presence of a valid analytic weight.

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, fall 2011, and spring 2012.



## 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 they progress from kindergarten through the 2015–16 school year, when most of the children 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> All 18,174 children were eligible for the first-grade data collections. This chapter summarizes the process used to select the sample for the study in the base year (i.e., kindergarten), describes how the sample design changed for the first-grade year, and provides information necessary to properly analyze the data that were collected.

### 4.1 Sample Design for the Base Year

For the base year, the sample for the ECLS-K:2011 was selected using a three-stage process. In the first stage of sampling, the United States 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 of 5-year-old children) 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. For a detailed description of the three stages of sampling, see chapter 4 of the *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* (NCES 2015-074) (Tourangeau et al. 2015), hereinafter referred to as the base-year User’s Manual.

---

<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.

<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 ECLS-K:2011 School Sample for the Base Year**

A total of 1,221 clusters of schools<sup>3</sup> were selected for the ECLS-K:2011, of which 1,003 were clusters of public schools and 218 were clusters of private schools. This resulted in 1,036 sampled public schools and 283 sampled private schools, for a total of 1,319 sampled schools.

The sample frames used to select schools were the 2006–07 Common Core of Data (CCD) and the 2007–08 Private School Survey (PSS), which were the most recent CCD and PSS data available at the time of sampling. Because the 2006–07 CCD and the 2007–08 PSS school frames were several years old, additional schools were sampled from supplemental frames that included newly opened schools and existing schools that added a kindergarten program after the 2006–07 CCD and the 2007–08 PSS were collected. These additional schools were added to the original school sample. In total, 33 new schools were added, of which 16 were public, 4 were Catholic, and 13 were non-Catholic private schools. The total number of sampled schools after updating was 1,352 (1,052 public schools and 300 private schools). For a detailed discussion of the supplemental school sample, see section 4.1.2.7 of the base-year User’s Manual.

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. For a detailed discussion of school substitution, see section 4.1.2.8 of the base-year User’s Manual. The characteristics of the base-year school sample are presented in table 4-1. This table includes substituted schools, which makes it different from table 4-2 in the base-year User’s Manual that shows sampled schools before substitution.

---

<sup>3</sup> Public schools with fewer than 23 children and private schools with fewer than 12 children were clustered together for sampling. Thus clusters of schools were sampled, each cluster comprising one or more schools. For a discussion of school clustering, see section 4.1.2.3 of the base-year User’s Manual.

Table 4-1. The ECLS-K:2011 school sample after school substitution

Characteristic <sup>1</sup>	Total	Public	Private
Total	1,352	1,052	300
Census region <sup>2</sup>			
Northeast	240	170	70
Midwest	280	220	60
South	480	390	90
West	350	270	80
Locale			
City	421	314	107
Suburb	522	400	122
Town	113	91	22
Rural	296	247	49
Kindergarten enrollment			
Fewer than 25	252	75	177
25–49	197	119	78
50–99	490	451	39
100–149	267	264	3
150–199	91	89	2
200–249	24	23	1
250–299	7	7	0
300 or more	24	24	0
Religious affiliation			
Catholic	74	†	74
Other religious	136	†	136
Nonreligious, private	90	†	90
Percent of students eligible for the free lunch program			
Less than 25 percent	472	472	†
Greater than 25 percent and less than or equal to 50 percent	267	267	†
Greater than 50 percent and less than or equal to 75 percent	188	188	†
Greater than 75 percent	125	125	†
Other school types			
Bureau of Indian Affairs school	3	3	0
Ungraded school	177	168	9

† Not applicable.

<sup>1</sup> School characteristics are taken from the original school frame.

<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.

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 The Base-Year Sample of 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. Table 4-2 shows the distribution of the eligible children sampled for the ECLS-K:2011, by selected characteristics. Table 4-3 shows the distribution of the children who participated in the base year, by selected characteristics.

As mentioned in the base-year User's Manual, 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, base-year response rates for these groups of students were lower than response rates for students of other racial/ethnic backgrounds. More specifically, a relatively small number of ECLS-K:2011 sample children in the Native Hawaiian/Other Pacific Islander group resided in Hawaii at the time of sampling. Also, nonresponse on the child assessment, parent interview, or both leads to some of these sampled cases not being included in weighted analyses depending on the weight used. In addition to the above, none of the ECLS-K:2011 sample children in the American Indian/Alaska Native group resided in Alaska at the time of sampling. Users are encouraged to consider these sample characteristics when making statements about children in these two racial groups. As a reminder, however, the study was not designed to be representative at the state level or for subgroups within any specific racial or ethnic group.

Table 4-2. Number (unweighted) of eligible children in the ECLS-K:2011 base-year sample, by selected characteristics: School year 2010–11

Child characteristic <sup>1</sup>	Total	Public school	Private school
Total	20,234	17,733	2,501
Census region <sup>2</sup>			
Northeast	3,500	2,930	570
Midwest	4,240	3,520	710
South	7,230	6,620	610
West	5,270	4,660	610
Locale <sup>3</sup>			
City	6,675	5,822	853
Suburb	7,657	6,461	1,196
Town	1,557	1,383	174
Rural	4,345	4,067	278
Religious affiliation			
Catholic	974	†	974
Other religious	1,002	†	1,002
Nonreligious, private	525	†	525
Child's race/ethnicity			
White, non-Hispanic	9,673	8,167	1,506
Black, non-Hispanic	2,619	2,357	262
Hispanic	4,832	4,491	341
Asian, non-Hispanic	1,830	1,597	233
Native Hawaiian/Other Pacific Islander, non-Hispanic	152	130	22
American Indian or Alaska Native, non-Hispanic	218	207	11
Other <sup>4</sup>	910	784	126

† Not applicable.

<sup>1</sup> School characteristics are taken from the original school frame. Race/ethnicity information was obtained from schools at the time of sampling.

<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.

Sample sizes rounded to the nearest 10 and, therefore, may not sum to total.

<sup>3</sup> Locale information was taken from the school sampling frame for most schools. For approximately 30 schools sampled via the new school procedure (see section 4.1.2.7 of the base-year User's Manual), locale information was not available in the school frame and was imputed for the estimates in this table. Imputed values for locale are not included in the data file.

<sup>4</sup> This category includes children who are more than one race (non-Hispanic) and children whose race/ethnicity is unknown.

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 4-3. Number (unweighted) of children participating in the base year, by selected characteristics: School year 2010–11

Child characteristic <sup>1</sup>	Total	Public school	Private school
Total	18,174	15,953	2,221
Census region <sup>2</sup>			
Northeast	3,010	2,540	470
Midwest	3,870	3,220	650
South	6,640	6,070	570
West	4,660	4,130	530
Locale <sup>3</sup>			
City	6,014	5,252	762
Suburb	6,793	5,746	1,047
Town	1,405	1,254	151
Rural	3,962	3,701	261
Religious affiliation			
Catholic	863	†	863
Other religious	903	†	903
Nonreligious, private	455	†	455
Child's race/ethnicity			
White, non-Hispanic	8,508	7,202	1,306
Black, non-Hispanic	2,413	2,177	236
Hispanic	4,531	4,208	323
Asian, non-Hispanic	1,558	1,370	188
Native Hawaiian/Other Pacific Islander, non-Hispanic	114	98	16
American Indian or Alaska Native, non-Hispanic	180	171	9
Other <sup>4</sup>	870	727	143

† Not applicable.

<sup>1</sup> School characteristics are taken from the original school frame. Race/ethnicity information is from the base-year race/ethnicity composite X12RACETH.

<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.

Sample sizes rounded to the nearest 10 and, therefore, may not sum to total.

<sup>3</sup> Locale information was taken from the school sampling frame for most schools. For approximately 30 schools sampled via the new school procedure (see section 4.1.2.7 of the base-year User's Manual), locale information was not available in the school frame and was imputed for the estimates in this table. Imputed values for locale are not included in the data file.

<sup>4</sup> The counts of children by race/ethnicity are slightly different from the counts in table 4-4 of the base-year User's Manual due to a revision of the race/ethnicity composite variable.

<sup>5</sup> This category includes children who are more than one race (non-Hispanic) and children whose race/ethnicity is unknown.

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.

## **4.2 Sample Design for the First-Grade Year**

### **4.2.1 Fall First Grade**

A subsample of students was selected for the fall first-grade data collection via a three-step procedure. In the first step, 30 PSUs were sampled from the 90 PSUs selected for the base year. These 90 PSUs consist of 10 self-representing PSUs due to their large population size, and 80 non-self-representing PSUs selected from 40 strata. The 10 self-representing PSUs were included in the fall first-grade sample with certainty. The remaining 20 PSUs were selected from the 80 non-self-representing PSUs. To select the 20 non-self-representing PSUs, 20 strata were sampled with equal probability from the 40 strata used to stratify the 80 non-self-representing PSUs in the full sample, and then one PSU was sampled within each stratum also with equal probability. This is equivalent to selection with probability proportional to size since the original PSU sample was selected with probability proportional to size.

In the second step, all eligible schools within the sampled PSUs with students who were sampled in the base year were included in the fall first-grade sample. Table 4-4 shows the characteristics of the subsampled schools for the fall first-grade data collection in this second step. In the third step, students attending the subsampled schools who were respondents<sup>4</sup> in the base year and who had not moved outside of the United States were included as part of the fall first-grade sample. A subsample of eligible students who had moved to another school in the same PSU or another sampled PSU were assessed in their new school (or home, if the student's new school refused to participate in the study). An attempt was made to complete a parent interview, but not a child assessment, for students who moved to a PSU that was not part of the full ECLS-K:2011 sample of 90 PSUs.

---

<sup>4</sup> A base-year respondent has child data (scoreable assessment data or height or weight measurements, or was excluded from assessment due to lack of accommodation for a disability) or parent interview data from at least one round of data collection in the base year.

Table 4-4. Number (unweighted) of schools in the fall first-grade school sample, by selected characteristics: Fall 2011

Characteristic <sup>1</sup>	Total	Public	Private
Total	568	462	106
Census region <sup>2</sup>			
Northeast	90	60	30
Midwest	100	90	10
South	170	150	30
West	200	170	40
Locale <sup>3</sup>			
City	241	202	39
Suburb	224	175	49
Town	19	15	4
Rural	84	70	14
Religious affiliation			
Catholic	29	†	29
Other religious	43	†	43
Nonreligious, private	34	†	34

† Not applicable.

<sup>1</sup> Characteristics are taken from the original school frame.

<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.

Sample sizes rounded to the nearest 10 and, therefore, may not sum to total.

<sup>3</sup> Locale information was taken from the school sampling frame for most schools. For a very small number of schools sampled via the new school procedure (see section 4.1.2.7 of the base-year User's Manual), locale information was not available in the school frame and was imputed for the estimates in this table. Imputed values for locale are not included in the data 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 2011.



Table 4-5 shows the school characteristics for the subsampled schools with base-year respondents. Student sampling was conducted in the base year only. In the fall of first grade, an eligible student was one who was a base-year respondent and who had not moved outside the United States. All eligible students found still attending the subsampled fall first-grade schools were included in the fall data collections. Transfer schools (those schools that children moved into after fall kindergarten) are not included in this table. Table 4-6 shows the characteristics of base-year respondents in the fall first-grade sample.

Table 4-5. Number (unweighted) of schools in the fall first-grade school sample with base-year respondents, by selected characteristics: Fall 2011

Characteristic <sup>1</sup>	Total	Public	Private
Total	346	305	41
Census region <sup>2</sup>			
Northeast	50	40	10
Midwest	60	50	10
South	120	110	10
West	120	100	20
Locale <sup>3</sup>			
City	144	132	12
Suburb	134	112	22
Town	15	12	3
Rural	53	49	4
Religious affiliation			
Catholic	16	†	16
Other religious	12	†	12
Nonreligious, private	13	†	13

† Not applicable.

<sup>1</sup> Characteristics are taken from the original school frame.

<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.

Sample sizes rounded to the nearest 10 and, therefore, may not sum to total.

<sup>3</sup> Locale information was taken from the school sampling frame for most schools. For a very small number of schools sampled via the new school procedure (see section 4.1.2.7 of the base-year User's Manual), locale information was not available in the school frame and was imputed for the estimates in this table. Imputed values for locale are not included in the data 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 2011.

Table 4-6. Number (unweighted) of base-year respondents in the fall first-grade sample, by selected characteristics: Fall 2011

Characteristic <sup>1</sup>	Total	Public	Private
Total	6,109	5,458	651
Census region <sup>2</sup>			
Northeast	820	730	90
Midwest	1,120	1,010	110
South	2,000	1,840	170
West	2,170	1,880	280
Locale <sup>3</sup>			
City	2,549	2,295	254
Suburb	2,461	2,101	360
Town	250	227	23
Rural	849	835	14
Religious affiliation			
Catholic	242	†	242
Other religious	233	†	233
Nonreligious, private	176	†	176
Race/ethnicity			
White, non-Hispanic	2,278	1,941	337
Black, non-Hispanic	678	614	64
Hispanic	2,261	2,130	131
Asian, non-Hispanic	477	421	56
Native Hawaiian/Other Pacific Islander, non-Hispanic	32	26	6
American Indian or Alaska Native, non-Hispanic	124	117	7
Other <sup>4</sup>	259	209	50

† Not applicable.

School characteristics are from the original school frame. Race/ethnicity is from the base year race/ethnicity composite; where it is missing the information comes from the schools' student lists.

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.

Sample sizes rounded to the nearest 10 and, therefore, may not sum to total.

Locale information was taken from the school sampling frame for most schools. For a very small number of schools sampled via the new school procedure (see section 4.1.2.7 of the base-year User's Manual), locale information was not available in the school frame and was imputed for the estimates in this table. Imputed values for locale are not included in the data file.

This category includes children who are more than one race (non-Hispanic), and children whose race/ethnicity is unknown.

NOTE: A base-year respondent has child data (scoreable assessment data or height or weight measurements, or was excluded from assessment due to a disability) or parent interview data from at least one round of data collection in the base year.

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

## 4.2.2 Spring First Grade

All base-year respondents—those students in the base year who have assessment scores or parent data in at least one of the two rounds of data collection—were part of the spring first-grade sample. Students who were not assessed in kindergarten because of a disability and those who had only height and weight measurements are also considered base-year respondents.

Table 4-7 shows the school characteristics for the schools with base-year respondents. Transfer schools (those schools that children moved into after the fall of kindergarten) are not included in this table.

Table 4-7. Number (unweighted) of schools in spring first grade with base-year respondents, by selected characteristics: Spring 2012

Characteristic <sup>1</sup>	Total	Public	Private
Total	989	858	131
Census region <sup>2</sup>			
Northeast	170	150	30
Midwest	200	150	40
South	360	330	40
West	260	230	30
Locale <sup>3</sup>			
City	321	278	43
Suburb	357	302	55
Town	86	73	13
Rural	225	205	20
Religious affiliation			
Catholic	52	†	52
Other religious	55	†	55
Nonreligious, private	24	†	24

† Not applicable.

<sup>1</sup> Characteristics are taken from the original school frame.

<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.

Sample sizes rounded to the nearest 10 and, therefore, may not sum to total.

<sup>3</sup> Locale information was taken from the school sampling frame for most schools. For approximately 30 schools sampled via the new school procedure (see section 4.1.2.7 of the base-year User's Manual), locale information was not available in the school frame and was imputed for the estimates in this table. Imputed values for locale are not included in the data file.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2012.

The characteristics of base-year respondents who were eligible for the spring first-grade data collection are those presented above in table 4-3; since there was no subsampling for the spring round of data collection, all base-year respondents were initially eligible for data collection.

### 4.2.3 Following Movers

Not all students who moved away from their original base-year schools between kindergarten and first grade (known as “movers”) were followed into their new schools. While some movers were followed with certainty, some subsampling of other movers occurred, as described below. Homeschooled children, that is those who were enrolled in a school at the time of sampling in the base year but left school to become homeschooled, were followed with certainty; they were assessed in their home if there was parental consent to do so.

**Destination schools.** When four or more students moved from an original sampled school into the same transfer school, all those movers were followed into the new school, which is referred to as a *destination school*. This type of movement occurred for children who attended sampled schools that ended at kindergarten, which are referred to as terminal schools. All base-year students in the terminal schools attended first grade in a school that was different from their base-year school. In some cases, a base-year school did not terminate in kindergarten, but for some reason four or more students from that school moved together to first grade into the same transfer school. For example, this would happen if the students’ kindergarten school closed. More than one destination school may be identified for an original school if separate clusters of four or more students move into different transfer schools.

**Language minority (LM) students, students with an Individualized Education Program (IEP), and students who had an Individualized Family Service Plan (IFSP).** Students who were identified as language minority (LM) based on parent report of home language in the base year, as well as students identified as currently having an Individualized Education Program (IEP), were followed at a rate of 100 percent. The IEP status of the child was obtained during the pre-assessment call when the team leader asked the school coordinator whether the child had an IEP or equivalent program on record with the school. The school records also may have indicated that a child had an Individualized Family Service Plan (IFSP) when he or she was younger, even if the child did not have an IEP at the time of data collection, which the team leader could have noted during the call. Additionally, information about whether a child had had an IFSP prior to kindergarten was collected in the base-year parent interview.

Approximately 92 percent of children who had an IFSP before starting kindergarten, according to parent report, were followed through the spring first-grade data collection.<sup>5</sup>

**All other movers.** Fifty percent of students who did not meet one of the criteria described above (i.e., did not move to a destination school, were not LM, and did not have an IEP) were sampled with equal probability to be flagged as “follow” if they moved from their original sample school. If a student was flagged as “do not follow,” no data were collected for him or her. Students flagged as “do not follow” were not sought for participation in any further data collection. If a student was flagged as “follow,” and

1. the student moved into a school in a study PSU: the student was included in all aspects of data collection (child assessment, parent interview, school administrator questionnaire, and teacher questionnaires);
2. the student moved into a school outside a study PSU: only a parent interview was attempted;
3. the student moved into a school outside the country: the student was out of scope and considered ineligible for continuation in the study.

**Procedures for students in the fall subsample.** In the fall of first grade, 50 percent of all students in the subsample had their follow flag set to “follow” after the base-year data collection.

---

<sup>5</sup> The study intended to follow children whose parents indicated they had had an IFSP at a rate of 100 percent. However, due to an identification error, these children were not flagged to be followed with certainty and, therefore, not all of them were followed when they moved from their originally sampled school. Despite this lack of sample protection, the vast majority of students who had an IFSP according to parent report were followed into first grade, either because they did not change schools, they had an IEP and became part of the protected group as a result of the IEP, or because they were part of the mover subsample that was followed at a rate of 50 percent.

There are some differences between the group of IFSP children who were followed and those who were not. However, some of these differences appear to be related to the likelihood that a child had an IEP (and, therefore, whether the child became part of the protected group as a result of the IEP). For example, compared to those IFSP children who were not followed, a higher percentage of IFSP children who were followed attended public schools, which are required to provide disability services through an IEP.

The subsampling process itself should not have introduced bias into the sample of IFSP children who were followed, because cases were randomly flagged to be followed. Additionally, the sampling weights developed for use with first-grade data account for this random subsampling. A comparison of key weighted estimates (such as school type, region of residence, school locale, percent of students in the school who were nonwhite, and student race/ethnicity, gender, and year of birth) between kindergarten and first grade generally suggests the loss of those children who were not followed has little impact on the overall estimates for children who had IFSPs before age 3. Where slight differences between the kindergarten and first-grade estimates were noticed (for example, on the percent of nonwhite students in a school), the pattern with the sample of IFSP children is reflective of differences seen in the full ECLS-K:2011 sample. Also, it should be kept in mind that identifying a child to be followed with certainty does not necessarily mean that the child would have participated in the round(s) in which he or she was followed. Due to general sample attrition, the IFSP students who were not flagged to be followed with certainty comprise only about half of all IFSP students who did not participate in first grade. It is unlikely that differences in weighted estimates for the entire group of IFSP children (about 680) are due solely to the absence of the approximately 60 IFSP cases that were not followed in first grade.

Nonparticipation of IFSP children in later rounds of the study for any reason does reduce the IFSP sample available for analysis. As is the case for analysis of any small subgroup, users should consider the size of their analytic sample and whether there is enough power in the data to make generalizations about the groups being examined.

Children were sampled with equal probability to be flagged as “follow,” meaning that if they transferred to a new school they would be followed into that new school for the fall first-grade data collection. As explained in detail below, all students who are subsampled in the fall, regardless of their mover status are followed in the spring first grade data collection.

**Procedures for students in the spring main sample.** In the spring of first grade, 50 percent of the schools in the main sample were subsampled with equal probability to have follow flags (i.e., all students in the 50 percent subsample of schools have flags set to “follow”). All fall first-grade schools in the 30 sampled PSUs were included in the “mover follow” sample for the spring of first grade. An additional sample of schools that were not part of the fall subsample was selected to arrive at 50 percent of the entire sample of schools being included in the “mover follow” subsample in the spring first-grade data collection. In this way, students who were originally sampled for fall first-grade data collection were included in the spring data collection with certainty. These fall subsample cases were followed for the spring data collection even if they were movers in the fall and had their fall mover flag set to “not follow” or they were nonrespondents in the fall. Also, this method allows fall first-grade movers to continue to be followed in each subsequent round of data collection, as well as more clustering of the movers to be followed, thus cutting down on field costs.

#### **4.3 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 were provided at the child and school levels. Estimates produced using the base-year child-level weights were 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 were representative of schools with kindergarten programs or schools that educate children of kindergarten age in an ungraded setting.

For the first-grade data collections, weights are provided only at the child level, to produce estimates for the kindergarten cohort during the 2011–12 school year. There are no school-level weights because the school sample is no longer nationally representative; it is not representative of schools with first grade or ungraded schools serving children of first-grade age. It is simply a set of schools attended by the children in the ECLS-K:2011 cohort during the 2011–12 school year.

The use of weights is essential to produce estimates that are representative of the cohort of children who were in kindergarten in 2010–11. Main sampling 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 linearization 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.

#### **4.3.1 Types of Sample Weights**

Main sampling weights designed for use with data from a complex sample survey serve two primary purposes. When used in analyses, the main sampling weight weights the sample size up to the population total of interest. In the ECLS-K:2011, weighting produces national-level estimates. Also, the main sampling 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 respondents 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 kindergarten parent interview, from the fall first-grade child assessment, or from the spring first-grade teacher questionnaire) and for every combination of components for the study (e.g., data from the spring first-grade child assessment with data from the spring first-grade school administrator questionnaire, or data from the spring kindergarten child assessment with data from the fall first-grade child assessment and the fall first-grade parent interview). However, creating all possible weights for a study with as many components as the ECLS-K:2011 would be impractical, especially as the study progresses and the number of possible weights increases. In order to determine which weights would be most useful for researchers analyzing data from first grade, completion rates for each fall first-grade and spring first-grade component (e.g., response to the child assessment, the parent interview, various parts of the teacher questionnaire) were reviewed in combination with completion rates from the kindergarten year, and consideration was given to how analysts are likely to use the data.

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 shows the 17 weights computed for the analyses of first-grade data. It also identifies the survey component(s), or sources of data, for which nonresponse adjustments are made for each weight.

Exhibit 4-1. ECLS-K:2011 first-grade main sampling weights: School year 2011–12

Weight	Description
W3CF3P_30	Child base weight adjusted for nonresponse associated with child assessment data from spring kindergarten and fall first grade, parent data from fall kindergarten or spring kindergarten, and parent data from fall first grade (C2)(C3)(P1_P2)(P3)
W3CF3P3T0	Child base weight adjusted for nonresponse associated with child assessment data from spring kindergarten and fall first grade, parent data from both kindergarten rounds, parent data from fall first grade, and teacher data from fall first grade (C2)(C3)(P1)(P2)(P3)(T3)
W4CF4P_20	Child base weight adjusted for nonresponse associated with child assessment data from both kindergarten rounds and both first-grade rounds, as well as parent data from fall kindergarten or spring kindergarten (C1)(C2)(C3)(C4)(P1_P2)
W4CF4P20	Child base weight adjusted for nonresponse associated with child assessment data from both kindergarten rounds and both first-grade rounds, as well as parent data from both kindergarten rounds (C1)(C2)(C3)(C4)(P1)(P2)
W4PF40	Child base weight adjusted for nonresponse associated with parent data from both kindergarten rounds and both first-grade rounds (P1)(P2)(P3)(P4)
W4CF4P40	Child base weight adjusted for nonresponse associated with child assessment data from fall first grade and spring first grade, as well as parent data from spring first grade (C3)(C4)(P4)
W4CF4P4T0	Child base weight adjusted for nonresponse associated with child assessment data from fall first grade and spring first grade, parent data from spring first grade, and either teacher/classroom or child-level teacher data from spring first grade (from a first-grade or a kindergarten teacher questionnaire) (C3)(C4)(P4)(T4)

See notes at end of exhibit.



Exhibit 4-1. ECLS-K:2011 first-grade main sampling weights: School year 2011–12—Continued

Weight	Description
W4C4P_20	Child base weight adjusted for nonresponse associated with child assessment data from both kindergarten rounds and spring first grade, as well as parent data from fall kindergarten or spring kindergarten (C1)(C2)(C4)(P1_P2)
W4C4P_40	Child base weight adjusted for nonresponse associated with child assessment data from both kindergarten rounds and spring first grade, parent data from fall kindergarten or spring kindergarten, and parent data from spring first grade (C1)(C2)(C4)(P1_P2)(P4)
W4C4P_2T0	Child base weight adjusted for nonresponse associated with child assessment data from both kindergarten rounds and from spring first grade, as well as parent data from fall kindergarten or spring kindergarten, and either teacher/classroom or child-level teacher data from spring first grade (from a first-grade or a kindergarten teacher questionnaire) (C1)(C2)(C4)(P1_P2)(T4)
W4C4P_4T0	Child base weight adjusted for nonresponse associated with child assessment data from both kindergarten rounds and from spring first grade, as well as parent data from fall kindergarten or spring kindergarten, parent data from spring first grade, and either teacher/classroom or child-level teacher data from spring first grade (from a first-grade or a kindergarten teacher questionnaire) (C1)(C2)(C4)(P1_P2)(P4)(T4)
W4CS4P_20	Child base weight adjusted for nonresponse associated with child assessment data from spring kindergarten and spring first grade, as well as parent data from fall kindergarten or spring kindergarten (C2)(C4)(P1_P2)
W4CS4P_40	Child base weight adjusted for nonresponse associated with child assessment data from spring kindergarten and spring first grade, as well as parent data from fall kindergarten or spring kindergarten, and parent data from spring first grade (C2)(C4)(P1_P2)(P4)
W4CS4P_2T0	Child base weight adjusted for nonresponse associated with child assessment data from spring kindergarten and spring first grade, as well as parent data from fall kindergarten or spring kindergarten, and either teacher/classroom or child-level teacher data from spring first grade (from a first-grade or a kindergarten teacher questionnaire) (C2)(C4)(P1_P2)(T4)

See notes at end of exhibit.

Exhibit 4-1. ECLS-K:2011 first-grade main sampling weights: School year 2011–12—Continued

Weight	Description
W4CS4P_4T0	Child base weight adjusted for nonresponse associated with child assessment data from spring kindergarten and spring first grade, as well as parent data from fall kindergarten or spring kindergarten, parent data from spring first grade, and either teacher/classroom or child-level teacher data from spring first grade (from a first-grade or a kindergarten teacher questionnaire) (C2)(C4)(P1_P2)(P4)(T4)
W4C4P4TZ0	Child base weight adjusted for nonresponse associated with child assessment data from both kindergarten rounds and spring first grade, as well as parent data from fall kindergarten and spring first grade, and either teacher/classroom or child-level teacher data from spring first grade (from a first-grade or a kindergarten teacher questionnaire). This weight is positive for the sample of children who have child, parent, and teacher data as defined above. This weight also includes an adjustment for unknown eligibility and nonresponse associated with the before- or after-school care (BASC) questionnaires from spring kindergarten. (C1)(C2)(C4)(P1)(P4)(T4) (Z2)
W4C4P_4TZ0	Child base weight adjusted for nonresponse associated with child assessment data from either fall or spring kindergarten and spring first grade, and parent data from either fall or spring kindergarten and spring first grade, and teacher/classroom or child-level teacher data from either fall or spring kindergarten and spring first grade (from a first-grade or a kindergarten teacher questionnaire). This weight is positive for the sample of children who have child, parent, and teacher data as defined above. This weight also includes an adjustment for unknown eligibility and nonresponse associated with the before or after-school care (BASC) questionnaires from spring kindergarten. (C1_C2)(C4)(P1_P2)(P4)(T1_T2)(T4) (Z2)

NOTE: Having child assessment data includes (1) having reading and/or mathematics and/or science scores, (2) having at least one executive function score, (3) having a height or weight measurement, or (4) being excluded from assessment due to lack of accommodation for a disability. The weight designations (C1, C2, etc.) use the same prefixes that are used for other variables in the kindergarten–first grade data file. The prefixes are listed in exhibit 7-1.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2011 and spring 2012.

Exhibit 4-2, which presents the same information as exhibit 4-1 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 are noted with a “Yes.” Researchers should choose a 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 fall first-grade child assessment data, fall first-grade parent interview data, and child-level data reported by the teachers in the fall of first grade, the weight

W3CF3P3T0 should be used since it adjusts for nonresponse on all three of those components (i.e., exhibit 4-2 shows a “Yes” in the fall first-grade child assessment, parent, and teacher columns).

However, for many analyses, there will be no weight that adjusts for nonresponse to all the sources of data that are included and for only those sources. 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 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.

Exhibit 4-2. Weights developed for use with the ECLS-K:2011 first-grade data, by components for which nonresponse adjustments were made: School year 2011–12

Weight	Fall kindergarten		Spring kindergarten			Fall first grade			Spring first grade		
	Child		Child		BASC	Child			Child		
	assessment	Parent	assessment	Parent	BASC	assessment	Parent	Teacher	assessment	Parent	Teacher <sup>1</sup>
	C1	P1	C2	P2	Z2	C3	P3	T3	C4	P4	T4
W3CF3P_30	†	<i>Yes</i>	Yes	<i>Yes</i>	†	Yes	Yes	†	†	†	†
W3CF3P3T0	†	Yes	Yes	Yes	†	Yes	Yes	Yes	†	†	†
W4CF4P_20	Yes	<i>Yes</i>	Yes	<i>Yes</i>	†	Yes	†	†	Yes	†	†
W4CF4P20	Yes	Yes	Yes	Yes	†	Yes	†	†	Yes	†	†
W4PF40	†	Yes	†	Yes	†	†	Yes	†	†	Yes	†
W4CF4P40	†	†	†	†	†	Yes	†	†	Yes	Yes	†
W4CF4P4T0	†	†	†	†	†	Yes	†	†	Yes	Yes	Yes
W4C4P_20	Yes	<i>Yes</i>	Yes	<i>Yes</i>	†	†	†	†	Yes	†	†
W4C4P_40	Yes	<i>Yes</i>	Yes	<i>Yes</i>	†	†	†	†	Yes	Yes	†
W4C4P_2T0	Yes	<i>Yes</i>	Yes	<i>Yes</i>	†	†	†	†	Yes	†	Yes
W4C4P_4T0	Yes	<i>Yes</i>	Yes	<i>Yes</i>	†	†	†	†	Yes	Yes	Yes
W4CS4P_20	†	<i>Yes</i>	Yes	<i>Yes</i>	†	†	†	†	Yes	†	†
W4CS4P_40	†	<i>Yes</i>	Yes	<i>Yes</i>	†	†	†	†	Yes	Yes	†
W4CS4P_2T0	†	<i>Yes</i>	Yes	<i>Yes</i>	†	†	†	†	Yes	†	Yes
W4CS4P_4T0	†	<i>Yes</i>	Yes	<i>Yes</i>	†	†	†	†	Yes	Yes	Yes
W4C4P4TZ0 <sup>2</sup>	Yes	Yes	Yes	†	Yes	†	†	†	Yes	Yes	Yes
W4C_4P_4TZ0 <sup>2,3</sup>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	Yes	†	†	†	Yes	Yes	Yes

† Not applicable.

<sup>1</sup> A case had to have either teacher/classroom or child-level teacher data from a first-grade or a kindergarten teacher questionnaire in the spring first-grade data collection to have a valid weight.

<sup>2</sup> The weights involving BASC are for the sample of children who have child and/or parent and/or teacher data as defined in this table. These children do not have to have BASC data, but adjustments for BASC unknown eligibility and BASC nonresponse were included in the computation of the weights.

<sup>3</sup> This weight also includes the presence of either teacher/classroom or child-level teacher data from one of the base year teacher questionnaires.

NOTE: “Yes” indicates that the weight includes nonresponse adjustments for that component. An italicized *Yes* indicates an “or” condition. BASC = before- and after-school care surveys. The weight designations (C1, C2, etc.) use the same prefixes that are used for other variables in the kindergarten–first grade data file. The prefixes are listed in exhibit 7-1.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2011 and spring 2012.

### **4.3.2 Computation of Sample Weights**

The computation of weights follows a general rule: (1) a base weight is computed to reflect the sample design, and (2) the base weight is adjusted for nonresponse and unknown eligibility. When there is an intermediate adjustment (e.g., a mover subsampling adjustment), it is the intermediate weight that is adjusted for nonresponse and not the base weight.

The nonresponse adjustment was computed as the sum of the base weights for all eligible units in a nonresponse class divided by the sum of the base weights of the respondent units in that nonresponse class. Nonresponse classes were formed separately for students in each type of school (public/Catholic/non-Catholic private). Within school type, analysis of school response propensity was done using school characteristics such as census region, locale, school enrollment size, and percent minority in school.<sup>6</sup> Nonresponse classes were created based on this analysis of response propensity. Similarly, student characteristics such as sex and race/ethnicity were used to analyze response propensity and create nonresponse classes. Rules for collapsing nonresponse adjustment cells were adopted, for example, cells had to have a maximum adjustment factor of 2 and a minimum cell size of 30.

Main sampling weights (indicated by the suffix 0) and replicate weights (indicated by the suffixes 1 to 40 or 1 to 80) were computed and included in the data file. In the sections that follow, only the main sampling weight is discussed, but any adjustment done to the main sampling weight was done to the replicate weights as well.

#### **4.3.2.1 Student Base Weights**

Only base-year respondents were eligible to participate in the first-grade rounds of data collection. For the fall of first grade, when only a subsample of students was included in data collection, the first-grade student base weight is the product of the base-year student base weight adjusted for base-year nonresponse and the inverse of the selection probabilities for the primary sampling units for the fall subsample. For the spring of first grade, when the full sample of students was included in data collection, the first-grade student base weight is the base-year student base weight adjusted for base-year nonresponse. The adjustment factor for base-year nonresponse is the sum of the base weights of the

---

<sup>6</sup> This was part of the school nonresponse adjustment that was done in the base year.

eligible students in the base year divided by the sum of the base weights of the base-year respondents.<sup>7</sup> For a description of the computation of the base-year student base weights, see section 4.2.2.3.1 of the base-year User’s Manual.

#### **4.3.2.2 Student Weights Adjusted for Mover Subsampling**

The student base weight described in section 4.3.2.1 was adjusted to reflect the subsampling of movers described in section 4.2.3. For every student who is a base-year respondent, a “follow” flag was assigned a value of 0 (do not follow if moved) or 1 (follow if moved). A mover-subsampling adjustment factor was set to 1 if the student was not a mover, 2 if the student was a mover and was followed into his or her new school, and 0 if the student was a mover and was not followed. The mover-subsampling adjusted weight is the product of the base weight described in section 4.3.2.1 and this mover-subsampling adjustment factor. Note that child assessments were not conducted and school staff questionnaires were not fielded for students who moved into nonsampled PSUs even if their flag was set to “follow”; therefore, they are counted as nonrespondents in the adjustment for student nonresponse. An attempt was made to complete a parent interview for students who moved into nonsampled PSUs if their flag was set to “follow”; therefore, their parents would be counted as respondents in the adjustment for parent nonresponse if a parent interview was completed.

#### **4.3.2.3 Student Nonresponse-Adjusted Weights**

The mover-subsampling adjusted weight described in section 4.3.2.2 was adjusted for nonresponse to produce each of the student-level weights described in exhibit 4-1. For each weight, a response status was defined based on the presence of data for the particular component(s) and round(s) covered by the weight.

For example, for the weight W3CF3P\_30, an *eligible respondent* is a base-year respondent who satisfies both of these criteria: (1) the student has child assessment data<sup>8</sup> from the spring of kindergarten and fall of first grade, and (2) the student has parent interview data from either the fall or

---

<sup>7</sup> A base-year respondent has child data (scoreable assessment data or height or weight measurements, or was excluded from assessment due to lack of accommodation for a disability) or parent interview data from at least one round of data collection in the base year.

<sup>8</sup> Having child assessment data includes (1) having reading and/or mathematics and/or science scores, (2) having at least one executive function score, (3) having a height or weight measurement, or (4) being excluded from assessment due to lack of accommodation for a disability.

spring of kindergarten, as well as parent data from the fall of first grade. An *ineligible* student is one who moved out of the country or is deceased or moved to another school and was not assigned to be followed. A student of *unknown eligibility* is one who could not be located. The remaining students are *eligible nonrespondents*.

Nonresponse adjustment was done in two steps: (1) adjustment for children whose eligibility was not determined (i.e., those who could not be located, or those who moved to another sampled PSU and who did not have parent interview data because the parent could not be contacted), and (2) adjustment for eligible nonrespondents. In the first step, a portion of cases with unknown eligibility was assumed to be ineligible. Nonresponse classes were created using school and child characteristics and used for both unknown eligibility and nonresponse adjustments.

Note that the weights involving BASC data are not computed only for children with BASC data or who were eligible for the BASC component. They are computed for the entire sample and include additional adjustments for BASC unknown eligibility and BASC nonresponse. For example, weight W4C4P4TZ0 is nonzero for children with child assessment data from both kindergarten rounds and the spring of first grade, as well as parent data from fall kindergarten and the spring of first grade, and teacher data (teacher/classroom or child-level) from the spring of first grade. It includes adjustment for nonresponse associated with these sets of data but also adjustments for BASC unknown eligibility and nonresponse, and is, therefore, appropriate for analyses that include BASC data along with data from these other components.

#### **4.3.2.4 Raking to Sample Control Totals**

To reduce the variability due to the subsampling of movers and to ensure that the final weights continue to sum to the base-year population total, the student nonresponse-adjusted weights were raked to sample-based control totals using the first-grade student base weights. Raking is a calibration estimator that is closely related to poststratification. The poststratification adjustment procedure involves applying a ratio adjustment to the weights. Respondents are partitioned into groups, known as poststrata cells, and a single ratio adjustment factor is applied to the weights of all units in a given poststratification cell. The numerator of the ratio is a “control total” usually obtained from a secondary source; the denominator is a weighted total for the survey data. Therefore at the poststratum level, estimates obtained using the poststratified survey weights will correspond to the control totals used. If either the cell level

population counts are not available for all cells or the majority of the cell sample sizes are too small, raking is used to adjust the survey estimates to the known marginal totals of several categorical variables. Raking is essentially a multivariate poststratification. In the ECLS-K:2011, multiple background characteristics from schools, students, and parents were combined to create raking cells.

The student records included in the file used for computing the control totals are records of base-year eligible children. The sum of the base weights from this file is the estimated number of children who were in kindergarten in 2010–11. Raking was done within raking cells (also known as raking dimensions). The raking dimensions were based on single characteristics (e.g., locale) or a combination of characteristics (e.g., age and race/ethnicity). Chi-Square Automatic Interaction Detector (CHAID) analysis was used to determine the best set of raking cells.

The final weight is the product of the raking factor and the student nonresponse-adjusted weight. The raking factor was computed as the ratio of the base-year sample control total for a raking cell over the sum of the nonresponse-adjusted first-grade weights in that raking cell.

### **4.3.3 Characteristics of Sample Weights**

The statistical characteristics of the sample weights are presented in table 4-8. For each weight, the number of cases with a nonzero weight 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. The procedure for raking to control totals included respondents and ineligible cases. Afterwards, weights of ineligible cases were set to zero. Because a portion of children of unknown eligibility was assumed to be ineligible (as discussed in section 4.3.2.3) and this adjustment for unknown eligibility was done within adjustment cells, there are small differences in the sums of weights.



Table 4-8. Characteristics of the first-grade weights: School year 2011–12

Weight	Number of cases	Mean	Standard deviation	CV <sup>1</sup> ( $\times 100$ )	Minimum	Maximum	Skewness	Kurtosis	Sum
W3CF3P_30	4,269	945.38	818.83	86.61	23.90	5,857.57	1.85	4.40	4,035,814.40
W3CF3P3T0	2,999	1,340.49	1055.96	78.77	92.92	7,121.96	1.56	2.68	4,020,130.72
W4CF4P_20	3,915	1,031.07	846.34	82.08	22.62	5,990.67	1.86	4.54	4,036,623.32
W4CF4P20	3,072	1,313.45	1040.20	79.20	82.81	8,021.38	1.73	3.81	4,034,926.38
W4PF40	2,952	1,367.55	1102.18	80.59	77.39	8,022.69	1.84	4.42	4,037,020.86
W4CF4P40	4,196	962.49	814.36	84.61	14.80	6,556.68	1.92	5.29	4,038,605.65
W4CF4P4T0	3,901	1,026.48	858.45	83.63	16.43	7,503.44	2.05	6.35	4,004,295.96
W4C4P_20	12,081	333.64	217.92	65.32	13.38	2,359.32	2.47	10.17	4,030,739.36
W4C4P_40	10,353	389.24	255.15	65.55	15.85	2,730.54	2.33	8.97	4,029,784.66
W4C4P_2T0	11,135	359.94	229.87	63.86	18.31	2,402.73	2.30	8.88	4,007,880.57
W4C4P_4T0	9,570	418.85	261.69	62.48	19.86	3,124.35	2.27	8.71	4,008,394.14
W4CS4P_20	13,447	299.75	200.44	66.87	11.83	2,310.67	2.77	12.38	4,030,760.23
W4CS4P_40	11,560	348.65	231.65	66.44	12.94	2,361.44	2.53	10.09	4,030,351.46
W4CS4P_2T0	12,377	323.85	209.78	64.78	12.94	2,044.93	2.43	9.22	4,008,279.58
W4CS4P_4T0	10,674	375.45	241.50	64.32	12.99	2,575.99	2.32	8.90	4,007,594.03
W4C4P4TZ0	8,004	501.05	378.63	75.57	18.97	3,365.84	2.48	8.63	4,010,376.91
W4C_4P_4TZ0	9,665	415.07	316.08	76.15	15.87	3,296.96	2.72	10.81	4,011,627.72

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2011 and spring 2012.

#### 4.3.4 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.

#### 4.3.4.1 Jackknife Method

The final main sampling 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 for the spring weights, and 40 for the fall weights. 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  $\theta$  is the survey estimate of interest,  
 $\hat{\theta}$  is the estimate of  $\theta$  based on the full sample,  
 $G$  is the number of replicates, and  
 $\hat{\theta}_{(g)}$  is the  $g^{\text{th}}$  replicate estimate of  $\theta$  based on the observations included in the  $g^{\text{th}}$  replicate.

Each main sampling weight that does not include adjustments for nonresponse to components from the fall first-grade data collection has 80 corresponding replicate weights for use with the JK2 method. The replicate weights begin with the same characters as the main sampling weight and end with the numbers 1 to 80. For example, the replicate weights corresponding to weight W4C4P\_20 are W4C4P\_21 through W4C4P\_280. For weights that include nonresponse adjustments for components from the fall first-grade data collection, there are 40 replicate weights. For example, weight W3CF3P\_30 has W3CF3P\_31 through W3CF3P\_340 as replicate weights.

#### 4.3.4.2 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  $Y = (Y_1, \dots, Y_p)'$  denotes a p-dimensional vector of population parameters,  $\hat{Y} = (\hat{Y}_1, \dots, \hat{Y}_p)'$  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

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

and

$$v(\hat{\theta}) \doteq v\left(\sum_{j=1}^p \frac{\partial g(Y)}{\partial y_j} (\hat{Y}_j - Y_j)\right) = \sum_{j=1}^p \sum_{i=1}^p \frac{\partial g(Y)}{\partial y_j} \frac{\partial g(Y)}{\partial y_i} Cov\{\hat{Y}_j, \hat{Y}_i\}.$$

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.<sup>9</sup> 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 main sampling 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 main sampling weight and end with either STR or PSU. For example, the stratum and PSU identifiers corresponding to weight W4PF40 are W4PF4STR and W4PF4PSU, respectively.

#### 4.3.4.3 Specifications for Computing Standard Errors

For the jackknife replication method, the main sampling 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, an analyst using the main sample weight W3CF3P\_30 to compute child-level estimates of mean reading scores for the fall of first grade would need to specify W3CF3P\_30 as the main sampling weight, W3CF3P\_31 to W3CF3P\_340 as the replicate weights, and

<sup>9</sup> For the ECLS-K:2011, the sample of primary sampling units (PSUs) was selected using the Durbin method. In this method, two PSUs were selected per stratum without replacement with probability proportional to size and known joint probability of inclusion in such a way to allow variances to be estimated as if the units had been selected with replacement.

JK2 as the method of replication. Note that there are 40 replicate weights for each weight that involves the fall first-grade data collection, and 80 replicate weights for each weight not involving the fall first-grade data collection.

For the Taylor series method, the main sampling weight, the sample design, the nesting stratum, and PSU variables must be specified. As an example, an analyst using the main sample weight W3CF3P\_30 to compute child-level estimates of mean reading scores for the fall of first grade must specify the main sampling weight (W3CF3P\_30), the stratum variable (W3CF3P\_3STR), and the PSU variable (W3CF3P\_3PSU). The “with replacement” sample design option, WR, must also be specified if using SUDAAN.

#### 4.3.5 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*), although this method is less precise than JK or Taylor series.<sup>10</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 4.3.4, not all statistical analysis software packages have procedures to compute the variance estimate or standard error using the replication method, and some analysts may not have access to software packages that do have such procedures. 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, the analyst should 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

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

where *n* is the sample size (i.e., the number of cases with a valid main sampling weight) and *N* is the sum of weights. See exhibit 4-2 for the type of weights to use and table 4-8 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>10</sup> Common procedures in SAS, SPSS, and Stata assume simple random sampling. Data analysts should use the SURVEY procedure (SAS), the Complex Samples module (SPSS), or the SVY command (Stata) to account for complex samples.

complex design of the study. To adjust the standard error of an estimate, the analyst should 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  $VAR_{SRS}$  and  $SE_{SRS}$ . 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 the data file by dividing the normalized analytic weight by the *DEFF* and using the adjusted weight in the analyses.

Table 4-9 shows estimates, standard errors, and design effects for 29 means and proportions selected from the fall data collection. Table 4-10 shows the median design effects for the same items but for subgroups. For each survey item, table 4-9 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 4-11 and table 4-12 show the same statistics but for 55 means and proportions selected from the spring data collection.

In general, design effects for fall first-grade are larger than design effects for spring first-grade for similar items. This is due to the larger variability in the weights as a result of subsampling. As was the case in the base year, design effects for the teacher-level data and the school-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, and children in the same school. Design effects are also large when the estimate applies only to a small sample of children.

Table 4-9. Standard errors and design effects for selected survey items, fall first grade: Fall 2011

Survey item	Variable	<i>n</i>	Estimate	<i>SE</i>	<i>SE</i> <sub>SRS</sub>	<i>DEFT</i>	<i>DEFF</i>
<b>Scores (mean)<sup>1,2</sup></b>							
Mathematics scale score	X3MSCALK1	4,246	50.81	0.540	0.205	2.63	6.925
Reading scale score	X3RSCALK1	4,221	56.20	0.700	0.207	3.37	11.385
Science scale score	X3SSCALK1	4,212	23.64	0.423	0.094	4.51	20.315
Approaches to learning-Teacher	X3TCHAPP	2,997	3.04	0.018	0.012	1.48	2.192
Externalizing problems-Teacher	X3TCHEXT	2,968	1.67	0.020	0.011	1.82	3.320
Internalizing problems-Teacher	X3TCHINT	2,901	1.48	0.016	0.009	1.80	3.250
Interpersonal-Teacher	X3TCHPER	2,819	3.14	0.016	0.012	1.39	1.933
Self-control-Teacher	X3TCHCON	2,762	3.21	0.022	0.011	1.93	3.723
<b>Student characteristics from parent interview (percent)<sup>1</sup></b>							
Parent did math activities with child every day	P3DOMATH	4,242	12.45	0.701	0.507	1.38	1.912
Parent read book to child every day	P3RDBKTC	4,242	46.22	1.735	0.766	2.27	5.136
Child read book alone every day	P3RDALON	4,236	33.27	1.404	0.724	1.94	3.763
Child used computer for education every day	P3COMEDU	4,231	16.38	1.367	0.569	2.40	5.773
Primary care type of child in summer is nonrelative	P3CARTYPE	1,002	49.79	2.389	1.579	1.51	2.288
Child visited museum/gallery	P3ARTMUS	4,230	49.61	2.655	0.769	3.45	11.928
Child had book list from school	P3SUMBK	4,084	29.30	3.776	0.712	5.30	28.113
<b>Student characteristics from teacher questionnaire (percent)<sup>2</sup></b>							
Student showed eagerness to learn - often/very often	T3SHOWS	2,997	76.14	0.981	0.778	1.26	1.589
Student worked independently - often/very often	T3WORKS	2,997	72.63	1.041	0.814	1.28	1.634
Student followed class rules - often/very often	T3FOLLOW	2,996	82.24	1.391	0.698	1.99	3.969
Student paid attention well - often/very often	T3ATTEN	2,995	64.58	1.179	0.874	1.35	1.819
Student demonstrated beginning writing skills- intermediate/proficient	T3WRYSKIL	2,858	42.19	1.704	0.924	1.84	3.404
Student kept belongings organized-often/very often	T3KEEPS	2,995	62.45	1.561	0.885	1.76	3.111
Don't know if student was given summer assignment	T3GVSMAS	2,983	36.02	2.740	0.879	3.12	9.719
Student was given summer reading activity	T3SUMRSH	422	23.50	11.740	2.064	5.69	32.357
Student was given summer math activity	T3SUMMSH	422	21.86	9.765	2.012	4.85	23.560
<b>Other student characteristics (mean)<sup>1</sup></b>							
Student's age (in months)	X3AGE	4,251	79.12	0.201	0.067	3.00	8.998
Student's height	X3HEIGHT	4,246	47.03	0.041	0.036	1.15	1.330
Student's weight	X3WEIGHT	4,244	53.29	0.298	0.175	1.71	2.909
Student's BMI	X3BMI	4,244	16.83	0.079	0.040	1.96	3.838

<sup>1</sup> Estimates for variables with names starting with X3 or P3 were computed using weight W3CF3P\_30, except for those with names starting with X3T.

<sup>2</sup> Estimates for variables with names starting with X3T or T3 were computed using weight W3CF3P3T0.

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.

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

Table 4-10. Median design effects for the fall first-grade survey items, by school characteristic: Fall 2011

Characteristic	Fall first grade	
	<i>DEFT</i>	<i>DEFF</i>
All schools	1.940	3.763
School affiliation	1.876	3.521
Public	1.573	2.475
Private	1.503	2.258
Catholic private	1.443	2.081
Other private	1.940	3.763
Census region <sup>1</sup>		
Northeast	2.350	5.521
Midwest	1.868	3.488
South	1.871	3.502
West	1.576	2.483
Locale		
City	2.007	4.027
Suburb	1.922	3.693
Town	1.313	1.723
Rural	1.686	2.841

<sup>1</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: 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 2011.



Table 4-11. Standard errors and design effects for selected survey items, spring first grade: Spring 2012

Survey item	Variable	<i>n</i>	Estimate	<i>SE</i>	<i>SE</i> <sub>SRS</sub>	<i>DEFT</i>	<i>DEFF</i>
<b>Scores (mean)<sup>1, 2, 3</sup></b>							
Mathematics scale score	X4MSCALK1	13,369	62.81	0.278	0.115	2.421	5.859
Reading scale score	X4RSCALK1	13,380	69.47	0.281	0.115	2.445	5.977
Science scale score	X4SSCALK1	13,340	26.70	0.173	0.056	3.094	9.574
Difference in mathematics scale score between the two spring data collections	D24MATH	13,326	19.28	0.143	0.066	2.162	4.676
Difference in reading scale score between the two spring data collections	D24READ	13,364	19.66	0.150	0.073	2.057	4.231
Difference in science scale score between the two spring data collections	D24SCI	13,158	5.66	0.077	0.036	2.145	4.602
Approaches to learning-Parent	X4PRNAPP	11,252	3.08	0.008	0.005	1.712	2.930
Impulsive/overactive-Parent	X4PRNIMP	11,175	1.88	0.009	0.007	1.372	1.883
Sad/lonely-Parent	X4PRNSAD	11,244	1.46	0.005	0.004	1.366	1.867
Self-control-Parent	X4PRNCON	11,254	3.02	0.006	0.005	1.307	1.709
Social interaction-Parent	X4PRNSOC	11,271	3.45	0.008	0.005	1.574	2.479
Approaches to learning-Teacher	X4TCHAPP	11,945	3.07	0.009	0.007	1.364	1.860
Externalizing problems-Teacher	X4TCHEXT	11,900	1.73	0.008	0.006	1.380	1.904
Internalizing problems-Teacher	X4TCHINT	11,823	1.55	0.006	0.005	1.297	1.681
Interpersonal-Teacher	X4TCHPER	11,811	3.14	0.009	0.006	1.488	2.215
Self-control-Teacher	X4TCHCON	11,736	3.21	0.009	0.006	1.569	2.463
<b>Student characteristics from parent interview (percent)<sup>4</sup></b>							
Parent is currently married or in civil union/domestic partnership	P4CURMAR	11,531	71.45	0.963	0.421	2.289	5.238
Non-English language used at home	P4ANYLNG	11,523	26.37	1.161	0.411	2.828	7.996
Has child care from relative	P4RELNOW	11,203	25.39	0.835	0.411	2.030	4.120
Child is eager to learn - often/very often	P4LEARN	11,250	87.92	0.357	0.308	1.161	1.347
Child participated in organized athletic activities	P4ATHLET	11,353	57.33	0.983	0.464	2.118	4.488
Child participated in performing arts programs	P4PERFRM	11,346	19.63	0.580	0.373	1.555	2.419
Child helped with chores often or very often	P4CHORES	11,246	59.62	0.776	0.462	1.678	2.816
Child has visited library/bookstore in past month	P4LIBBST	11,382	67.13	0.863	0.440	1.959	3.839
Parent volunteered at school	P4VOLSCH	11,532	56.21	1.208	0.462	2.616	6.841
Parent has received food stamps in past 12 months	P4FSTAMP	11,038	27.38	1.031	0.424	2.429	5.899
Parent said home is not at all safe or somewhat safe to play	P4SAFEPL	11,321	28.50	0.727	0.424	1.714	2.939

See notes at end of table.

Table 4-11. Standard errors and design effects for selected survey items, spring first grade: Spring 2012—Continued

Survey item	Variable	<i>n</i>	Estimate	<i>SE</i>	<i>SE</i> <sub>SRS</sub>	<i>DEFT</i>	<i>DEFF</i>
<b>School characteristics from school administrator questionnaire (percent)<sup>5</sup></b>							
Participated in USDA lunch program	S4USDALN	11,574	92.6	0.60	0.243	2.468	6.090
Classroom needs always adequate	S4CLSSOK	1,226	82.1	2.58	1.094	2.358	5.560
Computer lab needs always adequate	S4COMPOK	1,100	72.6	3.67	1.344	2.731	7.460
Offered before-school care	S4B4SCH	11,830	44.6	2.76	0.457	6.036	36.430
Offered after school care	S4AFTSCH	11,829	68.4	2.54	0.427	5.943	35.320
Received Title I funding	S4TT1	10,576	74.2	2.51	0.425	5.903	34.840
Bullying happened on occasion	S4BULLY	11,734	60.9	2.01	0.451	4.458	19.870
Had problem with crime in area	S4CRIME	1,112	52.3	3.77	1.500	2.514	6.320
<b>Other student characteristics (mean)<sup>1,4</sup></b>							
Student's age (in months)	X4AGE	13,395	85.47	0.097	0.039	2.462	6.060
Student's height	X4HEIGHT	13,358	48.51	0.038	0.021	1.809	3.273
Student's weight	X4WEIGHT	13,334	57.48	0.196	0.116	1.690	2.857
Student's BMI	X4BMI	13,333	17.05	0.043	0.026	1.680	2.824
Total number of persons in household	X4HTOTAL	11,560	4.64	0.023	0.013	1.791	3.207
Total number of siblings in household	X4NUMSIB	11,560	1.56	0.020	0.011	1.889	3.570
Total number of persons in household less than 18 years of age	X4LESS18	11,521	2.58	0.020	0.011	1.819	3.310

<sup>1</sup> Estimates for assessment scores, age, height, weight and BMI were computed using weight W4CS4P\_20.

<sup>2</sup> Estimates for score variables from the parent interview were computed using weight W4CS4P\_40.

<sup>3</sup> Estimates for score variables from the teacher questionnaire were computed using weight W4CS4P\_2T0.

<sup>4</sup> Estimates for variables from the parent interview were computed using weight W4CS4P\_40.

<sup>5</sup> Estimates for variables from the teacher and school administrator questionnaires were computed using weight W4CS4P\_2T0.

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.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2012.

Table 4-12. Median design effects for the spring first-grade survey items, by school characteristic:  
Spring 2012

Characteristic	Spring first grade	
	<i>DEFT</i>	<i>DEFF</i>
All schools	2.030	4.120
School affiliation	1.983	3.932
Public	1.668	2.781
Private	1.526	2.330
Catholic private	1.604	2.572
Other private	2.030	4.120
Census region <sup>1</sup>		
Northeast	1.825	3.329
Midwest	1.812	3.284
South	2.126	4.520
West	2.002	4.010
Locale		
City	1.895	3.590
Suburb	1.908	3.642
Town	1.653	2.734
Rural	1.835	3.368
School enrollment		
1 to 149 students	1.760	3.097
149 to 299 students	1.782	3.176
300 to 499 students	1.692	2.862
500 to 749 students	1.849	3.419
750 or more students	1.833	3.360
Percent minority enrolled		
0 to 50	2.077	4.313
16 to 45	1.765	3.115
46 to 85	1.841	3.390
86 to 100	1.929	3.720

<sup>1</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: 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), spring 2012.

*This page intentionally left blank.*

## 5. RESPONSE RATES

This chapter presents unit response rates and overall response rates for the different instruments included in the first-grade year of the ECLS-K:2011. A unit response rate is the ratio of the number of units with a completed interview, questionnaire, or assessment (for example, the units are students with a completed assessment) to the number of units sampled and eligible for the interview, questionnaire, or assessment. 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 eligible units with a completed interview, questionnaire, or assessment, taking all survey stages into account.

### 5.1 Study Instruments

For the ECLS-K:2011 first-grade data collections, 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 in which the instrument was included and, for selected instruments, for combinations of rounds of data collection.

Exhibit 5-1. ECLS-K:2011 survey instruments and definition of completed interview: School year 2011–12

Survey instrument	Fall 2011	Spring 2012	Definition of completed interview
Child assessment	Yes	Yes	Student has at least one set of scoreable mathematics/reading/science data OR at least one executive function score OR student has a height or weight measurement
Parent interview	Yes	Yes	In the fall data collection, parent answered all applicable items in the time use section of the questionnaire (TUQ). In the spring data collection, parent answered all applicable items in the family structure section of the questionnaire (FSQ)
Teacher-level teacher questionnaire <sup>1</sup>	No	Yes	Teacher completed at least one item in this questionnaire

See notes at end of exhibit.

Exhibit 5-1. ECLS-K:2011 survey instruments and definition of completed interview: School year 2011–12—Continued

Survey instrument	Fall 2011	Spring 2012	Definition of completed interview
Student-level teacher questionnaire <sup>2</sup>	Yes	Yes	Teacher completed at least one item in this questionnaire
Teacher-level special education teacher questionnaire	No	Yes	Student has special education teacher, and teacher completed at least one item in this questionnaire
Student-level special education teacher questionnaire	No	Yes	Student has special education teacher, and teacher completed at least one item in this questionnaire
School administrator questionnaire <sup>3</sup>	No	Yes	School administrator completed at least one item in the school administrator questionnaire

<sup>1</sup> In the spring data collection, there were two versions of the teacher-level teacher questionnaire: (1) TQAK was filled out by a teacher who had only sampled students who were in kindergarten linked to him or her, and (2) TQA1 was filled out by a teacher who was linked to a group of sampled students that included at least one student in first grade or above, though the group could have also included students in kindergarten.

<sup>2</sup> In the spring data collection, there were two versions of the student-level teacher questionnaire: (1) TQCK was filled out for sampled students who were in kindergarten, and (2) TQC1 was filled out for sampled students who were in first grade or above.

<sup>3</sup> In the spring data collection, there were two versions of the school administrator questionnaire: (1) SAQA was given to administrators in schools for which there were no school administrator data from the spring of kindergarten, and (2) SAQB was given to administrators in schools for which there were school administrator data from the spring of kindergarten.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2011 and spring 2012.

## 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 first-grade student base weight. 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.

The tables in this chapter present response rates for the different components of data collection shown above in exhibit 5-1 (the child assessment, parent interview, general classroom teacher questionnaires, school administrator questionnaire (SAQ), and special education teacher questionnaires) computed at the student level. Response rates for all students and response rates by selected school and student background characteristics are provided.

In order to compute response rates by different characteristics, the selected characteristics must be known for both respondents and nonrespondents. For rates for the spring first-grade data collection, information on the school characteristics presented in the tables, such as school enrollment or

percent minority, comes from the first-grade SAQ for the original or transfer school that the child attended in spring first-grade. When data from the first-grade SAQ are not available, the information used in the tables comes from the base year, but again for the school the child attended in spring first-grade. For rates for the fall data collection where the SAQ was not administered, school characteristic information comes from the spring first-grade SAQ for the original or transfer school the child attended in fall first grade if that is the same as the spring first-grade school. When a school does not have SAQ data either from first grade or the base year, data are from the Common Core Data (CCD) or the Private School Survey (PSS). Information on the child characteristics presented in the tables comes from the first-grade data collection. If first-grade data are not available, base-year data are used.

As noted in chapter 4, the fall first-grade data collection was conducted with a subsample of students attending schools that had participated in the base year and were located within the subsample of 30 PSUs selected for the fall collection. While all students attending the subsample schools who had been originally sampled for the study are considered to be part of the fall subsample (7,019 children in 346 schools), only those students who were base-year respondents<sup>1</sup> were followed for participation in the fall first-grade data collection. Of those 6,109 base-year respondents, about 20 were ineligible for fall first-grade because they had moved out of the country, and about 300 were not included in the fall data collection because they were movers who were subsampled out of the study. 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. The denominator used to calculate the unweighted fall child assessment response rate is 5,765. The denominator used to calculate the unweighted fall parent interview response rate is 5,792. For the teacher response rates, the denominator is 5,481. This denominator is lower because it excludes homeschooled children<sup>2</sup> as well as those children who do not have either a child assessment score or parent interview from the current round, fall first-grade.<sup>3</sup> The parent and teacher response rates are computed at the student level, meaning they indicate the percentages of students for whom a parent interview was completed and for whom a teacher questionnaire was received, respectively.

Table 5-1 presents weighted and unweighted student-level response rates for the child assessment and parent interview in the fall first-grade data collection, by selected school characteristics. For the fall child assessment, the weighted student-level response rate was 88.7 percent. With the exception of the “Unknown” categories for each school characteristic, almost all of the response rates by the selected school characteristics exceed 90 percent. The highest response rates were in the South census

---

<sup>1</sup> A base-year respondent has child data (scoreable assessment data or height or weight measurements or was excluded from assessment due to lack of accommodation for a disability) or parent interview data from at least one round of data collection in the base year.

<sup>2</sup> Homeschooled children were enrolled in a school at the time of sampling in the base year but left school to become homeschooled.

<sup>3</sup> A fall first-grade respondent has child data (scoreable assessment data or height or weight measurements or was excluded from assessment due to lack of accommodation for a disability) or parent interview data from the fall first-grade round of data collection.

region (97.1 percent), in towns and rural areas (96.9 percent and 97.0 percent respectively), and for students in schools with 150 to 299 students enrolled (98.2 percent). The lowest response rates were found for students in other private schools (92.9 percent) and in the schools with smallest enrollment (89.4 percent). For the fall parent interview, the weighted response rate was 86.7 percent, which was lower than most of the response rates when looking at rates by specific school characteristics in the table. The average response rate is brought down by the very low response rates for students for which the characteristics of their schools are unknown (i.e., those in the “Unknown” categories). The highest response rates were for students in Catholic schools (92.6 percent) and schools in the lowest percent minority group (92.5 percent), and the lowest response rate was for students in schools with in smallest enrollment size category (85.5 percent).



Table 5-1. Response rates for child assessment and parent interview, by selected school characteristics, fall first grade: Fall 2011

School characteristic <sup>3</sup>	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of respondents <sup>4</sup>	Response rates		Number of respondents <sup>4</sup>	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
All Students	5,230	88.7	90.7	4,980	86.7	86.0
School type						
Public	4,796	96.3	96.3	4,429	89.3	88.4
Private	427	94.9	96.2	394	90.7	88.7
Catholic	219	96.6	96.9	207	92.6	91.6
Other private	208	92.9	95.4	187	88.6	85.8
Homeschool/Unknown school type	7	2.2	2.1	157	54.8	46.2
Census region <sup>5</sup>						
Northeast	730	95.9	96.4	670	90.3	88.6
Midwest	920	95.2	94.6	850	88.4	86.6
South	1,720	97.1	97.4	1,620	90.8	91.3
West	1,860	95.4	95.3	1,680	86.9	86.1
Unknown	10	2.2	2.2	160	55.9	48.3
Locale						
City	2,240	95.5	95.8	2,035	87.8	86.5
Suburb	1,967	96.0	96.0	1,825	89.6	88.8
Town	209	96.9	97.2	193	87.4	89.4
Rural	748	97.0	96.5	715	92.2	91.7
Unknown	66	17.6	17.0	212	61.1	54.6
School enrollment						
1 to 149 students	123	89.4	91.8	113	85.5	84.3
150 to 299 students	673	98.2	98.2	600	89.8	87.5
300 to 499 students	1,164	95.8	95.4	1,073	88.5	87.3
500 to 749 students	2,170	96.5	96.3	2,034	90.1	89.8
750 or more students	1,080	95.2	95.6	989	88.6	87.1
Unknown	20	5.6	5.8	171	56.8	50.0

See notes at end of table.

Table 5-1. Response rates for child assessment and parent interview, by selected school characteristics, fall first grade: Fall 2011—Continued

School characteristic <sup>3</sup>	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of Respondents <sup>4</sup>	Response rates		Number of respondents <sup>4</sup>	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
Percent minority enrolled						
0 to 15	723	95.4	96.0	700	92.5	92.5
16 to 45	1,317	96.8	96.6	1,251	90.9	91.2
46 to 85	1,353	96.3	96.1	1,223	86.9	86.6
86 to 100	1,790	96.2	95.8	1,612	87.8	85.8
Unknown	47	10.2	12.6	194	57.9	52.0

<sup>1</sup> Student had scoreable reading or mathematics or science data, or at least one executive function score, or a height or weight measurement.

<sup>2</sup> Parent answered all applicable items in the time use section of the questionnaire (TUQ).

<sup>3</sup> Because the School Administrator Questionnaire (SAQ) was not administered in fall first grade, school characteristics (school type, region, locale, percent minority in the school) were calculated using the SAQ responses for round 3 participants who were also round 4 participants and attending the same school in both rounds, where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the round 4 composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<sup>4</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>5</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 fall first-grade data collection included only 30 percent of the PSUs. The weighted response rate was calculated using the fall first-grade student 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 2011.

Table 5-2 presents weighted and unweighted student-level response rates for the child assessment and parent interview in the fall first-grade data collection, by selected student characteristics. For the fall child assessment, the highest and lowest response rates were for subgroups with small numbers of sampled students: Native Hawaiians/Other Pacific Islanders (96.4 percent) and students born in 2003 and 2006 (77.4 percent and 59.1 percent, respectively). Among the subgroups that had a larger sample size, Hispanic students had the highest response rate (90.5 percent), while Black students (85.4 percent) had the lowest response rate. For the fall parent interview, the highest response rates were for students born in 2004 (89.5 percent), White students (89.0 percent), and students in the Other race/ethnicity category (89.2 percent), and the lowest response rates were again found among the subgroups with smaller sample sizes: students born in 2003 and 2006 (60.3 percent and 50.7 percent, respectively). Black students also had a lower response rate for the parent interview (81.2 percent).

Table 5-2. Response rates for child assessment and parent interview, by selected student characteristics, fall first grade: Fall 2011

Student characteristic	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of respondents	Response rates		Number of respondents	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
All students	5,230	88.7	90.7	4,980	86.7	86.0
Sex						
Male	2,729	89.4	91.0	2,581	86.2	85.5
Female	2,501	88.0	90.4	2,399	87.2	86.5
Race/ethnicity <sup>3</sup>						
White, non-Hispanic	1,942	88.5	90.7	1,915	89.0	89.1
Black, non-Hispanic	541	85.4	86.6	505	81.2	79.9
Hispanic	2,005	90.5	92.4	1,867	85.1	85.7
Asian, non-Hispanic	406	89.4	89.8	370	85.3	81.7
Native Hawaiian/ Other Pacific Islander, non- Hispanic	29	96.4	93.5	24	87.5	77.4
American Indian or Alaska Native, non-Hispanic	98	87.4	87.5	88	83.6	78.6
Two or more races, non-Hispanic	209	88.7	89.3	211	89.2	89.4
Year of birth <sup>4</sup>						
2003	20	77.4	75.0	10	60.3	70.0
2004	1,470	88.6	91.0	1,430	89.5	88.2
2005	3,740	89.1	90.8	3,530	85.8	85.3
2006	#	59.1	66.7	#	50.7	50.0

# Rounds to zero.

<sup>1</sup> Student had scoreable reading or mathematics or science data, or at least one executive function score, or a height or weight measurement.

<sup>2</sup> Parent answered all applicable items in the time use section of the questionnaire (TUQ).

<sup>3</sup> Race/ethnicity information comes from the composite variable X\_RACETH\_R. Information collected from schools at the of sampling was used to code race/ethnicity for a small number of cases with missing data on X\_RACETH\_R.

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

NOTE: The fall first-grade data collection included only 30 percent of the PSUs. The weighted response rates were calculated using the fall first-grade student 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 2011.

Table 5-3 presents the weighted and unweighted response rates for the general classroom teacher student-level questionnaire in the fall first-grade data collection, by selected school characteristics. The weighted response rate for all students was 92.2 percent. The highest response rates were for students in towns (99.3 percent), and students in the South census region (98.2 percent). Aside from the “Unknown” categories, which had very low response rates, the lowest response rates were for students in other private schools (92.5 percent) and students in schools with the highest percentage of minority enrollment (92.3 percent).

Table 5-3. Response rates for teacher questionnaires, by selected school characteristics, fall first grade:  
Fall 2011

School characteristic <sup>1</sup>	Teacher questionnaire (student-level)		
	Number of respondents <sup>2</sup>	Response rates	
		Weighted	Unweighted
All students	5,021	92.2	91.6
School type			
Public	4,611	96.6	94.1
Private	410	94.2	94.5
Catholic	212	95.8	95.5
Other private	198	92.5	93.4
Census region <sup>3</sup>			
Northeast	710	97.5	95.9
Midwest	870	94.9	90.6
South	1,700	98.2	97.2
West	1,750	94.3	92.4
Locale			
City	2,079	94.0	90.4
Suburb	1,936	97.6	96.8
Town	210	99.3	99.1
Rural	739	97.6	97.1
Unknown	57	25.7	27.4
School enrollment			
1 to 149 students	116	94.3	92.8
150 to 299 students	645	96.4	94.4
300 to 499 students	1,150	96.6	96.3
500 to 749 students	2,118	97.5	95.7
750 or more students	980	94.1	88.8
Unknown	12	6.0	7.4
Percent minority enrolled			
0 to 15	719	97.2	97.8
16 to 45	1,312	97.9	97.9
46 to 85	1,343	98.0	97.6
86 to 100	1,610	92.3	87.5
Unknown	37	13.7	19.4

<sup>1</sup> Because the School Administrator Questionnaire (SAQ) was not administered in fall first grade, school characteristics (school type, region, locale, percent minority in the school) were calculated using the SAQ responses for round 3 participants who were also round 4 participants and attending the same school in both rounds, where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the round 4 composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<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 fall first-grade data collection included only 30 percent of the PSUs. 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 fall first-grade student 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 2011.

Table 5-4 presents the weighted and unweighted response rates for the general classroom teacher student-level questionnaire in the fall first-grade data collection, by selected student characteristics. Overall, the response rates for students with different characteristics were fairly consistent, ranging between 91 and 99 percent. No subgroups had a notably low response rate, and the subgroups with high response rates all had small numbers of sampled students: Native Hawaiians/Other Pacific Islanders (98.9 percent) and students born in 2003 and 2006 (95.7 percent and 96.5 percent, respectively).

Table 5-4. Response rates for teacher questionnaires, by selected student characteristics, fall first grade: Fall 2011

Student characteristic	Teacher questionnaire (student-level)		
	Number of respondents <sup>1</sup>	Response rates	
		Weighted	Unweighted
All students	5,021	92.2	91.6
Sex			
Male	2,637	92.9	92.3
Female	2,384	91.3	90.8
Race/ethnicity <sup>1</sup>			
White, non-Hispanic	1,915	92.6	94.1
Black, non-Hispanic	519	93.0	89.8
Hispanic	1,861	91.4	89.2
Asian, non-Hispanic	393	91.0	92.5
Native Hawaiian/ Other Pacific Islander, non- Hispanic	28	98.9	96.6
American Indian or Alaska Native, non-Hispanic	98	91.1	94.2
Two or more races, non-Hispanic	207	92.7	92.8
Year of birth <sup>2</sup>			
2003	20	95.7	94.1
2004	1,430	91.8	92.2
2005	3,580	92.3	91.4
2006	#	96.5	75.0

# Rounds to zero.

<sup>1</sup> Race/ethnicity information comes from the composite variable X\_RACETH\_R. Information collected from schools at the of sampling was used to code race/ethnicity for a small number of cases with missing data on X\_RACETH\_R.

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

NOTE: The fall first-grade data collection included only 30 percent of the PSUs. 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 fall first-grade student 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 2011.

The overall response rate indicates the percentage of possible interviews, questionnaires, or assessments completed, taking all survey stages into account. In the base-year data collection, children were identified for assessment in a two-stage process. The first stage involved the recruitment of sampled schools to participate in the study. Assessments were then conducted for the sampled children whose parents consented. In fall first-grade, children in the subsampled schools were eligible for follow-up unless they became ineligible because they moved out of the country or they were movers who were not sampled for follow-up. Under this design, the response rate for the school is the percentage of original sampled schools in the subsample that had base-year responding children who were allowed to be followed up in fall first-grade. The response rate for the child assessment is the percentage of sampled and eligible children who completed the assessment. The overall response rate is the product of the base-year before-substitution school response rate and the child assessment response rate.

The overall weighted and unweighted response rates for the child assessment, the parent interview, and the student-level teacher questionnaire in the fall first-grade data collection are presented in tables 5-5 and 5-6. All schools in the fall subsample either responded to the fall data collection (they have fall first-grade students) or became ineligible (the base-year respondents who were in these schools moved to other schools). Because children were sampled in the base year and school participation after the base year was not required for the children to stay in the study, the school response rates used to calculate the student-level response rates in these tables are those from the base year (the base-year response rates are presented in table 5-2 of the *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), hereinafter referred to as the base-year User’s Manual).

The final overall response rate for the fall child assessment (the product of the base-year school response rate and the fall child assessment rate) was 55.6 percent. Looking at child assessment response rates by school characteristics, the highest response rates were for students attending schools in the Midwest region (70.8 percent) and students attending schools in which the percentage of enrolled students who were racial/ethnic minorities was 86 percent or higher (67.4 percent). The subgroups with the lowest response rates were the Northeast (54.6 percent) and West (55.9 percent) regions, and students in schools with an enrollment size of between 300 to 499 students (55.8 percent). The overall response rate for the fall parent interview was 54.4 percent. Looking at parent interview response rates by school characteristics, the patterns of response by subgroup are similar to what was observed for the child assessment.

Table 5-5. Overall response rates for child assessment and parent interview, by selected school characteristics, fall first grade: Fall 2011

School characteristic <sup>3</sup>	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of respondents <sup>4</sup>	Overall response rates		Number of respondents <sup>4</sup>	Overall response rates	
		Weighted	Unweighted		Weighted	Unweighted
All students	5,230	55.6	55.6	4,980	54.4	52.7
School type						
Public	4,796	60.8	59.5	4,429	56.3	54.6
Private	427	58.6	57.0	394	56.1	52.6
Catholic	219	62.2	61.0	207	59.6	57.6
Other private	208	56.6	55.2	187	54.0	49.7
Census region <sup>5</sup>						
Northeast	730	54.6	52.4	670	51.4	48.2
Midwest	920	70.8	68.8	850	65.8	63.0
South	1,720	58.9	59.0	1,620	55.1	55.3
West	1,860	55.9	55.4	1,680	50.9	50.0
Locale						
City	2,240	60.7	60.2	2,035	55.8	54.3
Suburb	1,967	58.5	55.9	1,825	54.6	51.7
Town	209	58.2	61.1	193	52.5	56.2
Rural	748	63.1	61.5	715	60.0	58.4
School enrollment						
1 to 149 students	123	61.3	60.5	113	58.7	55.6
150 to 299 students	673	62.3	62.6	600	56.9	55.7
300 to 499 students	1,164	55.8	54.9	1,073	51.5	50.2
500 to 749 students	2,170	63.6	63.0	2,034	59.4	58.7
750 or more students	1,080	56.9	54.0	989	53.0	49.2

See notes at end of table.

Table 5-5. Overall response rates for child assessment and parent interview, by selected school characteristics, fall first grade: Fall 2011—Continued

School characteristic <sup>3</sup>	Child assessment <sup>1</sup>		Parent interview <sup>2</sup>	
	Number of respondents <sup>4</sup>	Overall response rates Weighted Unweighted	Number of respondents <sup>4</sup>	Overall response rates Weighted Unweighted
Percent minority enrolled				
0 to 50	723	59.7 57.9	700	57.9 55.8
16 to 45	1,317	57.3 56.1	1,251	53.8 53.0
46 to 85	1,353	63.2 60.8	1,223	57.0 54.8
86 to 100	1,790	67.4 63.7	1,612	61.5 57.1

<sup>1</sup> Student had scoreable reading or mathematics or science data, or at least one executive function score, or a height or weight measurement.

<sup>2</sup> Parent answered all applicable items in the time use section of the questionnaire (TUQ).

<sup>3</sup> Because the School Administrator Questionnaire (SAQ) was not administered in fall first grade, school characteristics (school type, region, locale, percent minority in the school) were calculated using the SAQ responses for round 3 participants who were also round 4 participants and attending the same school in both rounds, where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the round 4 composite variables (especially percent minority), estimates in this table cannot be replicated using the data file.

<sup>4</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>5</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 fall first-grade data collection included only 30 percent of the PSUs. The weighted overall response rate was calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The counts of students by subgroups do not sum to the total because homeschooled students and 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 2011.

Table 5-6 presents overall weighted and unweighted response rates for the student-level teacher questionnaire, by selected school characteristics. The overall response rate was 57.8 percent. The highest rate was found in the Midwest region (70.6 percent), and the lowest rates were found in the Northeast and West regions, at 55.5 percent and 55.3 percent respectively.



Table 5-6. Overall response rates for teacher questionnaires, by selected school characteristics, fall first grade: Fall 2011

School characteristic <sup>1</sup>	Teacher questionnaire (student-level)		
	Number of respondents <sup>2</sup>	Overall response rates	
		Weighted	Unweighted
All students	5,021	57.8	56.2
School type			
Public	4,611	61.0	58.2
Private	410	58.2	56.0
Catholic	212	61.7	60.1
Other private	198	56.3	54.1
Census region <sup>3</sup>			
Northeast	710	55.5	52.2
Midwest	870	70.6	65.9
South	1,700	59.6	58.9
West	1,750	55.3	53.7
Locale			
City	2,079	59.8	56.8
Suburb	1,936	59.4	56.3
Town	210	59.7	62.3
Rural	739	63.5	61.9
School enrollment			
1 to 149 students	116	64.7	61.2
150 to 299 students	645	61.1	60.1
300 to 499 students	1,150	56.2	55.4
500 to 749 students	2,118	64.3	62.6
750 or more students	980	56.3	50.2
Percent minority enrolled			
0 to 15	719	60.8	59.0
16 to 45	1,312	58.0	56.9
46 to 85	1,343	64.3	61.8
86 to 100	1,610	64.7	58.2

<sup>1</sup> Because the School Administrator Questionnaire (SAQ) was not administered in fall first grade, school characteristics (school type, region, locale, percent minority in the school) were calculated using the SAQ responses for round 3 participants who were also round 4 participants and attending the same school in both rounds, where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the round 4 composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<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 fall first-grade data collection included only 30 percent of the PSUs. 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 rate was calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The counts of students by subgroups do not sum to the total because homeschooled students and 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 2011.

In the spring first-grade data collection, the 18,174 base-year respondents were part of the sample. Of these, about 70 were ineligible because they moved out of the country, and about 1,370 were not included in the spring data collection because they were movers who were subsampled out of the study. 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. The denominator used to calculate the unweighted child assessment response rate is 16,661. The denominator used to calculate the unweighted parent response rate is 16,733. Students who were homeschooled and those who were not spring first-grade respondents<sup>4</sup> were not eligible for the teacher questionnaires. The denominator used to calculate the teacher and the school administrator response rates is 15,623. 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. Above it was noted that there were two versions of each type of teacher questionnaire, one pertaining to kindergarten and one pertaining to first grade. The response rates are calculated as the percentage of all students whose teacher completed a questionnaire, regardless of the version completed. That is, separate response rates are not calculated for each version. The school administrator rate is also computed at the student level and indicates the percentage of students whose school administrator completed a questionnaire. As with the teacher questionnaires, there were two versions of the administrator questionnaire, and response rates are not calculated separately for each version.

Table 5-7 presents weighted and unweighted response rates for the child assessment and the parent interview in the spring first-grade data collection, by selected school characteristics. The weighted response rate for the spring child assessment was 88.0 percent, however most subgroups have response rates greater than 95 percent. The average response rate is brought down by the very low response rates for students for which the characteristics of their schools are unknown (i.e., those in the “Unknown” categories). Aside from the students who fall in the “Unknown” categories, the lowest response rates were for students in other private schools (89.3 percent) and in schools with the smallest enrollment size (92.5 percent).

---

<sup>4</sup> A spring first-grade respondent has child data (scoreable assessment data or height or weight measurements) or was excluded from assessment due to lack of accommodation for a disability) or parent interview data from the spring first-grade round of data collection.

Table 5-7. Response rates for child assessment and parent interview, by selected school characteristics, spring first grade: Spring 2012

School characteristic <sup>3</sup>	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of respondents <sup>4</sup>	Response rates		Number of respondents <sup>4</sup>	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
All students	15,132	88.0	90.8	12,952	76.2	77.4
School type						
Public	13,620	96.7	96.8	11,283	79.6	79.8
Private	1,486	92.8	94.5	1,295	82.2	82.3
Catholic	703	97.2	96.8	612	84.2	84.3
Other private	783	89.3	92.4	683	80.6	80.6
Homeschool/Unknown school type	26	3.2	2.6	374	38.7	36.8
Census region <sup>5</sup>						
Northeast	2,510	95.8	96.6	2,100	80.2	80.8
Midwest	3,150	96.6	96.7	2,570	78.4	78.5
South	5,490	97.0	97.0	4,650	81.2	81.7
West	3,960	95.4	95.7	3,260	78.7	78.4
Unknown	30	3.2	2.6	370	38.7	36.8
Locale						
City	5,003	95.5	96.1	4,024	77.3	76.9
Suburb	5,390	96.2	96.4	4,584	81.2	81.7
Town	1,188	98.0	97.9	980	78.7	80.3
Rural	3,225	96.9	97.0	2,744	81.9	82.1
Unknown	326	23.7	24.6	620	47.9	46.8

See notes at end of table.

Table 5-7. Response rates for child assessment and parent interview, by selected school characteristics, spring first grade: Spring 2012—Continued

School characteristic <sup>3</sup>	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of Respondents <sup>4</sup>	Response rates		Number of respondents <sup>4</sup>	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
<b>School enrollment</b>						
1 to 149 students	485	92.5	94.9	413	76.9	80.5
150 to 299 students	2,006	95.0	96.3	1,657	79.5	79.4
300 to 499 students	4,361	96.6	96.9	3,691	81.5	81.6
500 to 749 students	5,628	96.7	96.5	4,689	79.9	80.0
750 or more students	2,602	97.0	96.9	2,106	78.1	78.1
Unknown	50	5.2	4.8	396	39.4	37.7
<b>Percent minority enrolled</b>						
0 to 15	3,507	97.3	97.4	3,097	85.1	85.7
16 to 45	3,994	96.5	96.7	3,467	83.1	83.4
46 to 85	3,780	96.5	96.6	3,065	77.4	77.9
86 to 100	3,734	96.0	96.2	2,869	73.6	73.6
Unknown	117	9.6	10.3	454	41.1	40.0

<sup>1</sup> Student had scoreable reading or mathematics or science data, or at least one executive function score, or a height or weight measurement.

<sup>2</sup> Parent answered all applicable items in the family structure section of the questionnaire (FSQ).

<sup>3</sup> School characteristics (school type, region, locale, percent minority in the school) were calculated using the School Administrator Questionnaire (SAQ) responses for round 4 participants where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<sup>4</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>5</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 spring first-grade student 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), spring 2012.

Table 5-8 presents weighted and unweighted response rates for the child assessment and the parent interview in the spring first-grade data collection, by selected student characteristics. For the spring child assessment, Hispanic students had the highest response rate at 90.6 percent, while students in the Native Hawaiian/Other Pacific Islander subgroup also had a high response rate (90.4 percent). Among subgroups with a large number of sample members, Black students had a low response rate (83.2 percent), while some subgroups with small sample sizes also had low response rates: American Indians/Alaskan Natives (81.9 percent) and students born in 2003 and 2006 (80.4 percent and 78.0 percent, respectively). For the parent interview, the highest response rate was among parents of White students (80.2 percent), while the lowest parent response rates were for the following subgroups: Black

students (65.6 percent), Native Hawaiians/Other Pacific Islanders (62.7 percent), and American Indians/Alaskan Natives (also 62.7 percent).

Table 5-8. Response rates for child assessment and parent interview, by selected student characteristics, spring first grade: Spring 2012

Student characteristic	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of respondents	Response rates		Number of respondents	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
All students	15,132	88.0	90.8	12,952	76.2	77.4
Sex						
Male	7,725	87.7	90.6	6,594	75.9	76.9
Female	7,407	88.3	91.1	6,358	76.5	77.9
Race/ethnicity <sup>3</sup>						
White, non-Hispanic	7,109	88.1	91.4	6,409	80.2	82.1
Black, non-Hispanic	1,809	83.2	86.3	1,406	65.6	66.7
Hispanic	3,990	90.6	92.0	3,277	74.1	75.3
Asian, non-Hispanic	1,312	88.4	91.5	1,080	75.4	75.0
Native Hawaiian/Other Pacific Islander, non-Hispanic	99	90.4	91.7	70	62.7	64.8
American Indian or Alaska Native, non-Hispanic	130	81.9	82.3	95	62.7	60.1
Two or more races, non-Hispanic	683	87.0	90.5	615	79.0	80.9
Year of birth <sup>4</sup>						
2003	60	80.4	85.1	60	71.8	70.9
2004	4,650	88.7	91.6	3,990	76.6	78.3
2005	10,400	87.8	90.6	8,890	76.1	77.1
2006	20	78.0	77.3	20	72.0	72.7
Unknown	10	41.0	50.0	0	0.0	0.0

<sup>1</sup> Student had scoreable reading or mathematics or science data, or at least one executive function score, or a height or weight measurement.

<sup>2</sup> Parent answered all applicable items in the family structure section of the questionnaire (FSQ).

<sup>3</sup> Race/ethnicity information comes from the composite variable X\_RACETH\_R. Information collected from schools at the of sampling was used to code race/ethnicity for a small number of cases with missing data on X\_RACETH\_R.

<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 spring first-grade student 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), spring 2012.

Table 5-9 presents weighted and unweighted response rates for the general classroom teacher questionnaires in the spring first-grade data collection, by selected school characteristics. The weighted response rate for the teacher-level questionnaire was 87.7 percent, which is lower than the response rates for most subgroups due to the very low response rates for the “Unknown” categories. The highest rates were observed for students in schools with 15 percent or less minority enrollment (96.8 percent) and in Catholic schools (96.7 percent). Among categories other than “unknown,” the lowest rates were found in schools with at least 86 percent minority enrollment (84.4 percent), in the West (87.1 percent), and in the cities (87.0 percent). For the student-level teacher questionnaires, the weighted response rate was 87.9 percent. The response rates by subgroup are very close to the rates observed for the teacher-level questionnaire.

Table 5-9. Response rates for teacher questionnaires, by selected school characteristics, spring first grade: Spring 2012

School characteristic <sup>1</sup>	Teacher questionnaire (teacher-level)			Teacher questionnaire (student-level)		
	Number of respondents <sup>2</sup>	Response rates		Number of respondents <sup>2</sup>	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
All Students	13,857	87.7	88.7	13,892	87.9	88.9
School type						
Public	12,411	90.5	90.1	12,451	90.7	90.4
Private	1,446	94.7	96.1	1,441	94.6	95.7
Catholic	695	96.7	98.4	693	96.6	98.2
Other private	751	93.0	94.0	748	92.9	93.6
Homeschool/ Unknown school type	0	0.0	0.0	0	0.0	0.0
Census region <sup>3</sup>						
Northeast	2,340	92.1	92.7	2,340	91.9	92.5
Midwest	2,920	92.3	91.4	2,940	92.4	91.7
South	5,100	92.0	92.0	5,120	92.2	92.3
West	3,490	87.1	87.1	3,500	87.5	87.4
Unknown	0	0.0	0.0	0	0.0	0.0

See notes at end of table

Table 5-9. Response rates for teacher questionnaires, by selected school characteristics, spring first grade: School year 2011–12—Continued

School characteristic <sup>1</sup>	Teacher questionnaire (teacher-level)			Teacher questionnaire (student-level)		
	Number of respondents <sup>2</sup>	Response rates		Number of respondents <sup>2</sup>	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
<b>Locale</b>						
City	4,373	87.0	86.3	4,411	87.5	87.1
Suburb	4,980	89.9	91.5	4,993	90.2	91.7
Town	1,124	95.3	93.7	1,117	94.9	93.1
Rural	3,095	95.5	94.8	3,087	95.1	94.6
Unknown	285	41.0	43.9	284	40.9	43.8
<b>School enrollment</b>						
1 to 149 students	462	96.1	94.3	458	95.6	93.5
150 to 299 students	1,811	88.9	88.9	1,824	89.1	89.6
300 to 499 students	4,123	93.4	93.6	4,124	93.3	93.6
500 to 749 students	5,166	91.2	90.9	5,188	91.5	91.3
750 or more	2,285	87.4	86.8	2,288	87.7	86.9
Unknown	10	2.4	2.7	10	2.4	2.7
<b>Percent minority enrolled</b>						
0 to 15	3,405	96.8	96.4	3,394	96.5	96.1
16 to 45	3,787	93.3	93.6	3,781	93.2	93.5
46 to 85	3,437	89.9	89.7	3,438	90.0	89.8
86 to 100	3,184	84.4	84.4	3,234	85.5	85.7
Unknown	44	6.6	9.9	45	7.1	10.2

<sup>1</sup> School characteristics (school type, region, locale, percent minority in the school) were calculated using the School Administrator Questionnaire (SAQ) responses for round 4 participants where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<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: 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 spring first-grade student 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), spring 2012.

Table 5-10 presents weighted and unweighted response rates for the teacher questionnaires in the spring first-grade data collection, by selected student characteristics. The highest subgroup rates were observed for White students (90.2 percent), American Indians/Alaskan Natives (89.7 percent), and students born in 2004 (89.7 percent). The subgroups with the lowest rates were Asian students

(81.9 percent) and students born in 2006 (74.1 percent), though the latter group had very few respondents. Response rates by subgroup for the student-level teacher questionnaire show similar patterns as those for the teacher-level questionnaire.

Table 5-10. Response rates for teacher questionnaires, by selected student characteristics, spring first grade: Spring 2012

Student characteristic	Teacher questionnaire (teacher-level)			Teacher questionnaire (student-level)		
	Number of respondents	Response rates		Number of respondents	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
All students	13,857	87.7	88.7	13,892	87.9	88.9
Sex						
Male	7,060	87.1	88.5	7,078	87.3	7,078
Female	6,797	88.4	88.9	6,814	88.5	6,814
Race/ethnicity <sup>1</sup>						
White, non-Hispanic	6,737	90.2	92.0	6,720	90.0	6,720
Black, non-Hispanic	1,650	85.8	87.0	1,672	86.6	1,672
Hispanic	3,517	85.2	86.0	3,534	85.6	3,534
Asian, non- Hispanic	1,126	81.9	82.6	1,133	81.9	1,133
Native Hawaiian/ Other Pacific Islander, non- Hispanic	85	84.6	85.9	88	89.2	88
American Indian or Alaska Native, non-Hispanic	124	89.7	91.9	123	87.5	123
Two or more races, non-Hispanic	618	85.3	86.9	622	86.6	622
Year of birth <sup>2</sup>						
2003	60	84.7	90.0	60	84.7	63
2004	4,350	89.7	90.7	4,360	90.0	4,364
2005	9,430	86.9	87.8	9,450	87.0	9,447
2006	10	74.1	68.4	10	74.1	68.4
Unknown	10	100.0	100.0	10	100.0	100.0

<sup>1</sup> Race/ethnicity information comes from the composite variable X\_RACETH\_R. Information collected from schools at the of sampling was used to code race/ethnicity for a small number of cases with missing data on X\_RACETH\_R.

<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 spring first-grade student 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), spring 2012.



Table 5-11 presents weighted and unweighted overall response rates for the child assessment and the parent interview in the spring first-grade data collection, by selected school characteristics. As for fall first-grade, the overall response rate is the percentage of possible assessments, interviews, or questionnaires completed, taking into account all survey stages. All schools with base-year respondents either responded to the spring data collection or became ineligible because they no longer had eligible students (base-year respondents in these schools moved to other schools). As for fall first-grade, the school response rates used in the overall rates are from the base year because children were sampled in the base year and are eligible to stay in the study regardless of school participation after the base year. The overall response rates are calculated as the product of the school response rate from the spring kindergarten data collection (see table 5-2 of the base-year User’s Manual for those response rates) and the child assessment and parent interview response rates from the spring of first grade. The overall response rate for the spring child assessment was 55.2 percent. The highest response rates were found in the Midwest (71.9 percent) and in schools in which the percentage of enrolled students of racial/ethnic minorities was 86 percent or more (67.3 percent). The lowest rates were found in the Northeast (54.5 percent) and for students in other private schools (54.4 percent). For the parent interview, the overall weighted response rate for the spring data collection was 47.8 percent. The highest response rate was in the Midwest (58.3 percent), while the lowest rates were found in the Northeast (45.6 percent) and West (46.1 percent).

Table 5-11. Overall response rates for child assessment and parent interview, by selected school characteristics, spring first grade: Spring 2012

School characteristic <sup>3</sup>	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of Respondents <sup>4</sup>	Overall response rates		Number of respondents <sup>4</sup>	Overall response rates	
		Weighted	Unweighted		Weighted	Unweighted
All Students	15,132	55.2	55.7	12,952	47.8	47.4
School type						
Public	13,620	61.0	59.8	11,283	50.2	49.3
Private	1,486	57.4	56.0	1,295	50.8	48.8
Catholic	703	62.6	60.9	612	54.2	53.0
Other private	783	54.4	53.5	683	49.1	46.7
Census region <sup>5</sup>						
Northeast	2,510	54.5	52.6	2,100	45.6	44.0
Midwest	3,150	71.9	70.3	2,570	58.3	57.1
South	5,490	58.9	58.8	4,650	49.3	49.5
West	3,960	55.9	55.6	3,260	46.1	45.6

See notes at end of table.

Table 5-11. Overall response rates for child assessment and parent interview, by selected school characteristics, spring first grade: Spring 2012—Continued

School characteristic <sup>3</sup>	Child assessment <sup>1</sup>			Parent interview <sup>2</sup>		
	Number of respondents <sup>4</sup>	Overall response rates		Number of respondents <sup>4</sup>	Overall response rates	
		Weighted	Unweighted		Weighted	Unweighted
<b>Locale</b>						
City	5,003	60.7	60.4	4,024	49.2	48.3
Suburb	5,390	58.6	56.1	4,584	49.5	47.5
Town	1,188	58.9	61.6	980	47.3	50.5
Rural	3,225	63.1	61.8	2,744	53.3	52.3
<b>School enrollment</b>						
1 to 149 students	485	63.5	62.5	413	52.8	53.0
150 to 299 students	2,006	60.2	61.3	1,657	50.4	50.6
300 to 499 students	4,361	56.2	55.7	3,691	47.4	46.9
500 to 749 students	5,628	63.7	63.1	4,689	52.7	52.3
750 or more students	2,602	58.0	54.7	2,106	46.7	44.1
<b>Percent minority enrolled</b>						
0 to 15	3,507	60.9	58.7	3,097	53.3	51.7
16 to 45	3,994	57.1	56.2	3,467	49.2	48.5
46 to 85	3,780	63.3	61.1	3,065	50.8	49.3
86 to 100	3,734	67.3	64.0	2,869	51.6	48.9

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

<sup>2</sup> Parent answered all applicable items in the family structure section of the questionnaire (FSQ).

<sup>3</sup> School characteristics (school type, region, locale, percent minority in the school) were calculated using the School Administrator Questionnaire (SAQ) responses for round 4 participants where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<sup>4</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>5</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 counts of students by subgroups do not sum to the total because homeschooled students and 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), spring 2012.

Table 5-12 presents weighted and unweighted overall response rates for the general classroom teacher questionnaires in the spring first-grade data collection, by selected school characteristics. The overall response rate for the teacher-level questionnaire was 55.0 percent. Response rates were highest in the Midwest (68.7 percent) and for students in schools with enrollment of between 1 and 149 students (65.9 percent). The lowest response rates were found in the Northeast (52.4 percent) and West (51.0 percent) and

for students in schools with an enrollment of at least 750 students (52.3 percent). The overall response rate for the student-level teacher questionnaire was 55.1 percent. The response rates by subgroup follow a similar pattern as those for the teacher-level questionnaire.

Table 5-12. Overall response rates for teacher questionnaires, by selected school characteristics, spring first grade: Spring 2012

School characteristic <sup>1</sup>	Teacher questionnaire (teacher-level)			Teacher questionnaire (student-level)		
	Number of respondents <sup>2</sup>	Overall response rates		Number of respondents <sup>2</sup>	Overall response rates	
		Weighted	Unweighted		Weighted	Unweighted
All Students	13,857	55.0	54.4	13,892	55.1	54.5
School type						
Public	12,411	57.1	55.7	12,451	57.2	55.9
Private	1,446	58.5	57.0	1,441	58.5	56.8
Catholic	695	62.3	61.9	693	62.2	61.8
Other private	751	56.6	54.4	748	56.6	54.2
Census region <sup>3</sup>						
Northeast	2,340	52.4	50.4	2,340	52.3	50.3
Midwest	2,920	68.7	66.4	2,940	68.7	66.7
South	5,100	55.8	55.8	5,120	56.0	55.9
West	3,490	51.0	50.6	3,500	51.3	50.8
Locale						
City	4,373	55.3	54.2	4,411	55.7	54.7
Suburb	4,980	54.7	53.3	4,993	54.9	53.4
Town	1,124	57.3	58.9	1,117	57.0	58.6
Rural	3,095	62.2	60.4	3,087	61.9	60.3
School enrollment						
1 to 149 students	462	65.9	62.1	458	65.6	61.6
150 to 299 students	1,811	56.4	56.6	1,824	56.5	57.1
300 to 499 students	4,123	54.4	53.8	4,124	54.3	53.8
500 to 749 students	5,166	60.1	59.4	5,188	60.3	59.7
750 or more students	2,285	52.3	49.0	2,288	52.4	49.1

See notes at end of table.

Table 5-12. Overall response rates for teacher questionnaires, by selected school characteristics, spring first grade: Spring 2012—Continued

School characteristic <sup>1</sup>	Teacher questionnaire (teacher-level)			Teacher questionnaire (student-level)		
	Number of respondents <sup>2</sup>	Overall response rates		Number of respondents <sup>2</sup>	Overall response rates	
		Weighted	Unweighted		Weighted	Unweighted
Percent minority enrolled						
0 to 15	3,405	60.6	58.1	3,394	60.4	57.9
16 to 45	3,787	55.2	54.4	3,781	55.2	54.3
46 to 85	3,437	59.0	56.8	3,438	59.0	56.8
86 to 100	3,184	59.2	56.1	3,234	59.9	57.0

<sup>1</sup> School characteristics (school type, region, locale, percent minority in the school) were calculated using the School Administrator Questionnaire (SAQ) responses for round 4 participants where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<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: 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 spring first-grade student base weight for the student response rate component. The counts of students by subgroups do not sum to the total because homeschooled students and 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), spring 2012.

Tables 5-13 through 5-15 present response rates that reflect response across the fall and spring first-grade collections combined. These rates are referred to as longitudinal response rates. Response rates are for cases with a response for a given component in both the fall and the spring. The denominators for the unweighted response rates in these tables include students who were part of the fall first-grade subsample who remained eligible in the spring of first grade. The weight used to compute estimates for tables 5-13 through 5-15 showing longitudinal response rates is the fall first-grade student base weight that includes the 30 percent subsampling and the mover subsampling adjustments but does not include adjustments for unknown eligibility or nonresponse. Information on the school and child characteristics comes from the first-grade data collection. If first-grade data are not available, base-year data are used.

Table 5-13 presents the weighted and unweighted response rates for students who completed a child assessment in both the fall and spring first-grade data collections, and for students who had a complete parent interview in both the fall and spring first-grade data collections, by selected school

characteristics. The denominator used to calculate the unweighted child assessment longitudinal response rate is 5,748. The denominator used to calculate the unweighted parent interview longitudinal response rate is 5,776. The weighted response rate for students with assessments in both fall and spring is 85.5 percent. The highest response rates were for students in rural locales (94.6 percent), in Catholic schools (94.0 percent), in schools with enrollment of between 500 and 749 students (94.0 percent), and in the South (93.9 percent). With the exception of the “unknown” categories, the lowest rate was found among students in other private schools (72.1 percent). The weighted response rate for parent interviews in both fall and spring was 74.3 percent. The highest rates were found for students in Catholic schools (83.8 percent) and schools with zero to 15 percent of their students in a racial/ethnic minority group (84.9 percent). The lowest rates were for students in schools in the West (72.1 percent) and in schools with at least 86 percent of students in a racial/ethnic minority group (also 72.1 percent).

Table 5-13. Longitudinal response rates for child assessment and parent interview, by selected school characteristics, fall and spring first grade: School year 2011–12

School characteristic <sup>3</sup>	Child assessment in both fall and spring <sup>1</sup>			Parent interview in both fall and spring <sup>2</sup>		
	Number of respondents <sup>4</sup>	Response rates		Number of respondents <sup>4</sup>	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
All Students	5,040	85.5	87.7	4,263	74.3	73.8
School type						
Public	4,637	93.4	93.4	3,802	77.6	76.1
Private	397	83.7	89.6	354	80.2	79.9
Catholic	209	94.0	92.5	189	83.8	83.6
Other private	188	72.1	86.6	165	76.2	76.0
Homeschool/Unknown school type	6	1.8	1.8	107	34.7	31.5
Census region <sup>5</sup>						
Northeast	710	93.5	93.9	600	82.1	79.5
Midwest	880	91.9	91.1	700	75.0	71.5
South	1,650	93.9	94.1	1,440	80.7	81.5
West	1,790	90.7	92.1	1,410	72.1	72.6
Unknown	10	1.8	1.8	110	35.3	32.9
Locale						
City	2,148	90.7	92.1	1,693	73.7	72.2
Suburb	1,902	93.3	93.1	1,613	79.6	78.7
Town	202	93.9	94.0	163	74.3	75.5
Rural	727	94.6	94.0	633	81.5	81.3
Unknown	61	16.4	15.8	161	43.9	41.6

See notes at end of table.

Table 5-13. Longitudinal response rates for child assessment and parent interview, by selected school characteristics, fall and spring first grade: School year 2011–12—Continued

School characteristic <sup>3</sup>	Child assessment in both fall and spring <sup>1</sup>			Parent interview in both fall and spring <sup>2</sup>		
	Number of respondents <sup>4</sup>	Response rates		Number of respondents <sup>4</sup>	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
<b>School enrollment</b>						
1 to 149 students	119	87.0	88.8	96	76.0	71.6
150 to 299 students	636	90.5	92.8	520	78.7	75.8
300 to 499 students	1,119	91.5	91.9	915	76.1	74.6
500 to 749 students	2,101	94.0	93.5	1,773	79.0	78.5
750 or more students	1,049	93.4	93.3	841	76.4	74.4
Unknown	16	4.7	4.7	118	36.4	34.6
<b>Percent minority enrolled</b>						
0 to 15	701	92.6	93.2	644	84.9	85.2
16 to 45	1,262	91.9	92.9	1,130	81.4	82.6
46 to 85	1,307	93.4	92.9	1,033	73.4	73.2
86 to 100	1,729	93.7	93.0	1,316	72.1	70.4
Unknown	41	8.6	11.0	140	38.4	37.6

<sup>1</sup> Student had scoreable reading or mathematics or science data, or at least one executive function score, or a height or weight measurement, in both fall and spring first grade.

<sup>2</sup> Parent answered all applicable items in the time use section of the questionnaire (TUQ) in fall and the family structure questions (FSQ) in spring.

<sup>3</sup> Because the School Administrator Questionnaire (SAQ) was not administered in fall first grade, school characteristics (school type, region, locale, percent minority in the school) were calculated using the SAQ responses for round 3 participants who were also round 4 participants and attending the same school in both rounds, where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the round 4 composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<sup>4</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>5</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 fall first-grade data collection included only 30 percent of the PSUs. The weighted response rates were calculated using the fall first-grade student base weight. The school characteristics are the same as for the fall first-grade tables.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2011 and spring 2012.

Table 5-14 presents the weighted and unweighted response rates for students who completed a child assessment in both the fall and spring first-grade data collections, and for students who have a complete parent interview in both the fall and spring first-grade data collections, by selected student characteristics. The highest and lowest response rates for the child assessment occurred in subgroups with small numbers of sampled students: Native Hawaiians/Other Pacific Islanders (94.9 percent), American Indians/Alaskan Natives (81.2 percent), and students born in 2003 and 2006 (70.2 percent and 59.1 percent respectively). Among subgroups with larger numbers of sampled students, the highest response rate was for Hispanic students (87.7 percent), while the lowest response rate was for Black students (81.9 percent). For parent interviews in both fall and spring, the highest and lowest response rates also occurred in subgroups with small numbers of sampled cases: other race/ethnicity (82.5 percent), American Indians/Alaskan Natives (62.4 percent), and students born in 2003 and 2006 (54.7 percent and 48.6 percent respectively). Among subgroups with larger numbers of sampled students, the highest response rate was for White students (79.4 percent), while the lowest response rate was for Black students (65.2 percent).

Table 5-14. Longitudinal response rates for child assessment and parent interview, by selected student characteristics, fall and spring first grade: School year 2011–12

Student characteristic	Child assessment in both fall and spring <sup>1</sup>			Parent interview in both fall and spring <sup>2</sup>		
	Number of respondents	Response rates		Number of respondents	Response rates	
		Weighted	Unweighted		Weighted	Unweighted
All students	5,040	85.5	87.7	4,263	74.3	73.8
Sex						
Male	2,626	85.9	87.9	2,211	74.0	73.5
Female	2,414	85.1	87.5	2,052	74.8	74.1
Race/ethnicity <sup>3</sup>						
White, non-Hispanic	1,879	85.3	87.8	1,730	79.4	80.5
Black, non-Hispanic	511	81.9	81.8	393	65.2	62.2
Hispanic	1,941	87.7	89.9	1,554	70.0	71.6
Asian, non- Hispanic	388	85.7	86.8	306	73.3	68.3
Native Hawaiian/ Other Pacific Islander, non- Hispanic	28	94.9	90.3	20	76.8	64.5
American Indian or Alaska Native, non-Hispanic	91	81.2	81.3	64	62.4	57.1
Two or more races, non-Hispanic	202	85.3	86.3	196	82.5	83.1
Year of birth <sup>4</sup>						
2003	10	70.2	63.2	10	54.7	60.0
2004	1,420	85.7	88.3	1,230	75.4	75.6
2005	3,600	85.7	87.6	3,020	74.2	73.3
2006	#	59.1	66.7	#	48.6	33.3

# Rounds to zero.

<sup>1</sup> Student had scoreable reading or mathematics or science data, or at least one executive function score, or a height or weight measurement, in both fall and spring first grade.

<sup>2</sup> Parent answered all applicable items in the time use section of the questionnaire (TUQ) in fall and the family structure questions (FSQ) in spring.

<sup>3</sup> Race/ethnicity information comes from the composite variable X\_RACETH\_R. Information collected from schools at the of sampling was used to code race/ethnicity for a small number of cases with missing data on X\_RACETH\_R.

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

NOTE: The fall first-grade data collection included only 30 percent of the PSUs. The weighted response rates were calculated using the fall first-grade student 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 2011 and spring 2012.

Table 5-15 presents overall weighted and unweighted response rates for students who completed a child assessment in both the fall and spring first-grade data collections, and for students who have a complete parent interview in both the fall and spring first-grade data collections, by selected



school characteristics. The overall weighted response rate for students with assessments in both fall and spring was 53.6 percent. The highest response rates were in the Midwest (68.4 percent) and in schools with at least 86 percent of students who were racial/ethnic minorities (also 65.7 percent), while the lowest rate was for students in other private schools (43.9 percent). The overall weighted response rate for students with a complete parent interview in both fall and spring was 46.6 percent. The highest rates were in the Midwest (55.8 percent) and in Catholic schools (54.0 percent), while the lowest rates were in the West (42.3 percent), in towns (44.7 percent), and for students in schools with enrollment between 300 and 499 students (44.3 percent).

Table 5-15. Overall longitudinal response rates for child assessment and parent interview, by selected school characteristics, fall and spring first grade: School year 2011–12

School characteristic <sup>3</sup>	Child assessment in both fall and spring <sup>1</sup>			Parent interview in both fall and spring <sup>2</sup>		
	Number of respondents <sup>4</sup>	Overall response rates		Number of respondents <sup>4</sup>	Overall response rates	
		Weighted	Unweighted		Weighted	Unweighted
All Students	5,040	53.6	53.8	4,263	46.6	45.2
School type						
Public	4,637	58.9	57.7	3,802	49.0	47.0
Private	397	51.7	53.1	354	49.6	47.4
Catholic	209	60.5	58.2	189	54.0	52.6
Other private	188	43.9	50.1	165	46.4	44.0
Census region <sup>5</sup>						
Northeast	710	53.2	51.1	600	46.7	43.2
Midwest	880	68.4	66.2	700	55.8	52.0
South	1,650	57.0	57.0	1,440	49.0	49.4
West	1,790	53.2	53.5	1,410	42.3	42.2
Locale						
City	2,148	57.7	57.8	1,693	46.9	45.3
Suburb	1,902	56.8	54.2	1,613	48.5	45.8
Town	202	56.4	59.1	163	44.7	47.5
Rural	727	61.6	59.9	633	53.1	51.8

See notes at end of table.

Table 5-15. Overall response rates for child assessment and parent interview, by selected school characteristics, fall and spring first grade: School year 2011–12—Continued

School characteristic <sup>3</sup>	Child assessment in both fall and spring <sup>1</sup>			Parent interview in both fall and spring <sup>2</sup>		
	Number of respondents <sup>4</sup>	Overall response rates		Number of respondents <sup>4</sup>	Overall response rates	
		Weighted	Unweighted		Weighted	Unweighted
<b>School enrollment</b>						
1 to 149 students	119	59.7	58.5	96	52.1	47.2
150 to 299 students	636	57.4	59.1	520	49.9	48.3
300 to 499 students	1,119	53.3	52.8	915	44.3	42.9
500 to 749 students	2,101	61.9	61.1	1,773	52.1	51.3
750 or more students	1,049	55.9	52.7	841	45.7	42.0
<b>Percent minority enrolled</b>						
0 to 15	701	58.0	56.2	644	53.1	51.4
16 to 45	1,262	54.4	54.0	1,130	48.2	48.0
46 to 85	1,307	61.3	58.8	1,033	48.2	46.3
86 to 100	1,729	65.7	61.8	1,316	50.5	46.8

<sup>1</sup> Student had scoreable reading or mathematics or science data, or at least one executive function score, or a height or weight measurement, in both fall and spring first grade.

<sup>2</sup> Parent answered all applicable items in the time use section of the questionnaire (TUQ) in fall and the family structure questions (FSQ) in spring.

<sup>3</sup> Because the School Administrator Questionnaire (SAQ) was not administered in fall first grade, school characteristics (school type, region, locale, percent minority in the school) were calculated using the SAQ responses for round 3 participants who were also round 4 participants and attending the same school in both rounds, where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the round 4 composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<sup>4</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>5</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 fall first-grade data collection included only 30 percent of the PSUs. The weighted overall response rate was calculated using the school base weight for the school response rate component and the student base weight for the student response rate component. The counts of students by subgroups do not sum to the total because homeschooled students and 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 2011 and spring 2012.

Table 5-16 presents the response rates for the two special education teacher questionnaires. 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. The denominator for the special education teacher rates is 979. The two special education teacher questionnaires had similar response rates.

Table 5-16. Response rates for special education teacher questionnaires, spring first grade: Spring 2012

Questionnaire	Number of respondents	Response rates		Overall response rates	
		Weighted	Unweighted	Weighted	Unweighted
Special Education Teacher					
Teacher-level questionnaire	871	88.5	89.0	55.5	54.6
Child-level questionnaire	862	87.6	88.0	54.9	53.9

NOTE: A child was eligible for the special education questionnaire if he or she had an Individualized Education Plan (IEP) on file with the school. A respondent is a child for whom a special education teacher questionnaire was returned and the questionnaire had at least one response. The weighted response rates were calculated using the spring first-grade student 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), spring 2012.

Tables 5-17 and 5-18 present response rates for the school administrator questionnaire (SAQ) included in the spring first-grade data collection. In the base year, the school sample was representative of schools educating kindergartners and kindergarten-aged children, so the base-year User’s Manual presented response rates at the school level. After the base year, the school sample is the set of schools attended by children in the ECLS-K:2011 and is no longer nationally representative sample of schools. For this reason, response rates for the SAQ are presented only at the student level.

Table 5-17 presents the weighted and unweighted response rates for the school administrator questionnaire, by selected school characteristics. They are rates for students who were not homeschooled and who are spring first-grade respondents.<sup>5</sup> The weighted response rate for the school administrator questionnaire was 87.9 percent. The highest response rates for this questionnaire were for students in schools with school enrollment of fewer than 150 (98.6 percent), in Catholic schools (97.7 percent), in towns (95.4 percent), and in schools with zero to 15 percent of students who were racial/ethnic minorities (97.1 percent). Aside from students in the “Unknown” categories, for which response rates were very low, the lowest response rates were for students in the largest schools (85.4 percent) and students in schools with at least 86 percent of students who were racial/ethnic minorities (84.6 percent).

<sup>5</sup> A spring first-grade respondent has child data (scoreable assessment data or height or weight measurements or was excluded from assessment due to lack of accommodation for a disability) or parent interview data from the spring first-grade round of data collection.

Table 5-17. Response rates for school administrator questionnaire, by selected school characteristics, spring first grade: Spring 2012

School characteristic <sup>1</sup>	Student-level school administrator questionnaire		
	Number of respondents <sup>2</sup>	Response rates	
		Weighted	Unweighted
All students	13,960	87.9	89.4
School type			
Public	12,527	90.7	91.0
Private	1,433	94.7	95.2
Catholic	698	97.7	98.9
Other private	735	92.1	92.0
Census region <sup>3</sup>			
Northeast	2,370	92.5	93.9
Midwest	2,940	92.2	92.0
South	5,120	92.1	92.3
West	3,520	87.5	88.0
Locale			
City	4,437	87.4	87.6
Suburb	5,017	91.1	92.2
Town	1,132	95.4	94.3
Rural	3,090	93.8	94.7
Unknown	284	41.0	43.8
School enrollment			
1 to 149 students	485	98.6	99.0
150 to 299 students	1,859	90.5	91.3
300 to 499 students	4,169	93.7	94.6
500 to 749 students	5,210	91.8	91.6
750 or more students	2,230	85.4	84.7
Unknown	7	1.9	1.9

See notes at end of table.

Table 5-17. Response rates school administrator questionnaire, by selected school characteristics, spring first grade: Spring 2012—Continued

School characteristic <sup>1</sup>	Student-level school administrator questionnaire		
	Number of respondents <sup>2</sup>	Response rates	
		Weighted	Unweighted
Percent minority enrolled			
0 to 15	3,431	97.1	97.1
16 to 45	3,872	95.2	95.7
46 to 85	3,412	88.8	89.1
86 to 100	3,225	84.6	85.5
Unknown	20	2.9	4.5

<sup>1</sup> School characteristics (school type, region, locale, percent minority in the school) were calculated using the School Administrator Questionnaire (SAQ) responses for round 4 participants where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<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: 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 spring first-grade student 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), spring 2012.

Table 5-18 presents the weighted and unweighted response rates for the school administrator questionnaire, by selected student characteristics. The highest weighted response rate for the school administrator questionnaire was for White students (90.8 percent). Excluding subgroups with small numbers of sampled students, the lowest response rates were for Black (85.0 percent), Hispanic (85.3 percent), and Asian students (84.9 percent).

Table 5-18. Response rates for school administrator questionnaire, by selected student characteristics, spring first grade: Spring 2012

Student characteristic	Student-level school administrator questionnaire		
	Number of respondents	Response rates	
		Weighted	Unweighted
All students	13,960	87.9	89.4
Sex			
Male	7,129	87.5	89.3
Female	6,831	88.4	89.4
Race/ethnicity <sup>1</sup>			
White, non-Hispanic	6,810	90.8	93.0
Black, non-Hispanic	1,624	85.0	85.6
Hispanic	3,508	85.3	85.7
Asian, non-Hispanic	1,201	84.9	88.0
Native Hawaiian/Other Pacific Islander, non-Hispanic	79	80.6	79.8
American Indian or Alaska Native, non-Hispanic	113	70.2	83.7
Two or more races, non-Hispanic	625	86.9	87.9
Year of birth <sup>2</sup>			
2003	70	88.2	92.9
2004	4,360	89.4	90.8
2005	9,520	87.3	88.7
2006	10	74.1	68.4
Unknown	#	78.0	80.0

# Rounds to zero.

<sup>1</sup> Race/ethnicity information comes from the composite variable X\_RACETH\_R. Information collected from schools at the of sampling was used to code race/ethnicity for a small number of cases with missing data on X\_RACETH\_R.

<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 spring first-grade student 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), spring 2012.

Table 5-19 shows the overall response rates for the school administrator questionnaire. The overall weighted response rate was 55.1 percent. The highest response rates were for students in the Midwest (68.6 percent) and in schools with enrollment between 1 and 149 students (67.6 percent), while the lowest rates were found in the Northeast (52.6 percent), in the West (51.3 percent), and for students in schools with the largest student enrollment (51.1 percent).

Table 5-19. Overall response rates for school administrator questionnaire, by selected school characteristics, spring first grade: Spring 2012

School characteristic <sup>1</sup>	Student-level school administrator questionnaire		
	Number of respondents <sup>2</sup>	Overall response rates	
		Weighted	Unweighted
All students	13,960	55.1	54.8
School type			
Public	12,527	57.2	56.2
Private	1,433	58.5	56.5
Catholic	698	62.9	62.2
Other private	735	56.1	53.3
Census region <sup>3</sup>			
Northeast	2,370	52.6	51.1
Midwest	2,940	68.6	66.9
South	5,120	55.9	55.9
West	3,520	51.3	51.1
Locale			
City	4,437	55.6	55.0
Suburb	5,017	55.5	53.7
Town	1,132	57.3	59.3
Rural	3,090	61.1	60.3
School enrollment			
1 to 149 students	485	67.6	65.2
150 to 299 students	1,859	57.4	58.2
300 to 499 students	4,169	54.5	54.4
500 to 749 students	5,210	60.5	59.9
750 or more students	2,230	51.1	47.9
Percent minority enrolled			
0 to 15	3,431	60.8	58.6
16 to 45	3,872	56.4	55.6
46 to 85	3,412	58.3	56.4
86 to 100	3,225	59.3	56.9

<sup>1</sup> School characteristics (school type, region, locale, percent minority in the school) were calculated using the School Administrator Questionnaire (SAQ) responses for round 4 participants where available. When round 4 SAQ data were not available, information was taken from prior-round SAQ responses, the Common Core of Data (CCD), or the Private School Survey (PSS). Due to differences between the way prior-round SAQ/CCD/PSS data were used to generate estimates in this table and the way those data were used to calculate the composite variables (especially percent minority enrolled), estimates in this table cannot be replicated using the data file.

<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: 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 spring first-grade student base weight for the student response rate component. The counts of students by subgroups do not sum to the total because homeschooled students and 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), spring 2012.

### **5.3 Nonresponse Bias Analysis**

NCES statistical standards require that any survey instrument with a unit response rate less than 85 percent be evaluated for potential nonresponse bias. For the first-grade rounds of data collection, only the spring parent interview had a response rate lower than 85 percent (76.2 percent, weighted, and 77.4 percent, unweighted). Section 5.3.1 examines the effect nonresponse might have on estimates produced from the parent interview.

#### **5.3.1 Effect of Nonresponse on Parent Interview Data**

Estimates weighted by the nonresponse-adjusted weights are compared with estimates weighted by the base weight (which are referred to as unadjusted estimates). The base weight only takes into account the selection probabilities of the sampling units and the subsampling of movers to be followed. The weights with nonresponse adjustments are the standard weights used to analyze ECLS-K:2011 data. The adjusted weight used in this analysis is W4CS4P\_40, which is adjusted for nonresponse to the spring parent interview. For a discussion of how the weights were constructed, see chapter 4.

Large differences between the adjusted and unadjusted weights indicate the potential for bias in the estimates. If the differences are small, then the chance for substantial nonresponse bias is reduced. Larger differences could be indicative of substantial nonresponse bias. However, if characteristics associated with the differences are used in the nonresponse adjustment process, the likelihood that the weighted estimates are biased as a result of nonresponse would be lower. This method of examining nonresponse bias provides a look at the need for the nonresponse adjustment and its effectiveness.

Table 5-20 shows estimates of selected items from the parent interview. The differences between the unadjusted and adjusted estimates are very small, and thus, the potential for substantial nonresponse bias seems unlikely.



Table 5-20. Estimates using unadjusted and nonresponse-adjusted weights, spring first grade: Spring 2012

Survey item	Sample size	Unweighted estimate	Unadjusted <sup>1</sup>		Adjusted <sup>2</sup>	
			Estimate	SE	Estimate	SE
<b>Mean scores</b>						
Approaches to learning—Parent	11,252	3.08	3.09	0.01	3.08	0.01
Impulsive/overactive—Parent	11,175	1.87	1.88	0.01	1.88	0.01
Sad/lonely—Parent	11,244	1.46	1.46	0.01	1.46	0.01
Self-control—Parent	11,254	3.02	3.01	0.01	3.02	0.01
Social interaction—Parent	11,271	3.44	3.45	0.01	3.45	0.01
<b>Proportion of students with the following characteristics from the parent interview</b>						
Parent is currently married, in civil union or domestic partnership	11,531	74.46	73.37	0.93	71.45	0.96
Non-English language used at home	11,523	29.26	25.60	1.26	26.37	1.16
Has child care from relative	11,203	25.14	24.68	0.86	25.39	0.84
Child is eager to learn—often/very often	11,250	87.93	87.83	0.37	87.92	0.36
Child participated in organized athletic activities	11,353	58.05	58.95	1.06	57.33	0.98
Child participated in performing arts programs	11,346	20.32	19.98	0.59	19.63	0.58
Child helped with chores often or very often	11,246	58.63	59.14	0.73	59.62	0.78
Child has visited library/bookstore in past month	11,382	67.72	67.22	0.87	67.13	0.86
Parent volunteered at school	11,532	57.51	57.88	1.30	56.21	1.21
Parent has received food stamps in past 12 months	11,038	24.66	25.77	1.14	27.38	1.03
Parent said home is not at all safe or somewhat safe to play	11,321	28.05	27.02	0.78	28.50	0.73
<b>Mean estimate of the following student characteristics</b>						
Total number of persons in household	11,560	4.65	4.63	0.02	4.64	0.02
Total number of siblings in household	11,560	1.55	1.56	0.02	1.56	0.02
Total number of persons in household less than 18 years of age	11,521	2.56	2.57	0.02	2.58	0.02

See notes at end of table.

Table 5-20. Estimates using unadjusted and nonresponse-adjusted weights, spring first grade:  
Spring- 2012—Continued

Survey item	Sample size	Unweighted estimate	Unadjusted <sup>1</sup>		Adjusted <sup>2</sup>	
			Estimate	SE	Estimate	SE
<b>Proportion of students with completed parent interview data and the following characteristics</b>						
Go to school in a city	11,560	30.83	29.61	0.84	31.14	0.86
Go to school in a suburb	11,560	36.60	33.81	1.11	32.54	1.02
Go to school in a town	11,560	8.10	10.83	0.80	10.97	0.69
Go to school in a rural area	11,560	22.26	22.52	0.90	21.62	0.78
White, non-Hispanic	11,560	51.03	55.03	1.79	51.49	1.67
Black, non-Hispanic	11,560	10.53	11.18	1.16	13.51	1.23
Hispanic	11,560	24.51	24.06	1.52	24.78	1.26
Asian, non-Hispanic	11,560	7.93	4.28	0.68	4.17	0.61
Pacific Islander, non-Hispanic	11,560	0.54	0.32	0.07	0.81	0.12
American Indian or Alaska Native, non-Hispanic	11,560	0.67	0.83	0.46	1.14	0.53
Two or more races, non-Hispanic	11,560	4.78	4.29	0.31	4.08	0.25

<sup>1</sup> Unadjusted estimates are produced using the student base weight.

<sup>2</sup> Adjusted estimates are produced using weight W4CS4P\_40. NOTE: SE = standard error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2012.

Table 5-21 shows the differences between unweighted and weighted estimates, and between estimates produced using base weights (unadjusted estimates) and estimates produced using adjusted weights. The differences are shown in absolute value and as a percent. For example, for the differences between unweighted and unadjusted estimates, the difference is the absolute value of unweighted estimate minus the unadjusted estimate, and the percent is the difference divided by the unweighted estimate. In general, the percent differences between unweighted and unadjusted estimates, and between unadjusted and adjusted estimates, are very small for the mean estimates (less than 1 percent). For the proportion estimates, the differences are larger (average is 10 percent), but this is mostly due to variables with a small proportion of cases with uncommon characteristics (for example, students who went to school in a town, compared with those who went to school in a city or suburb). This shows that there is some potential for nonresponse bias in the unweighted parent data, but the weights used to produce estimates were adjusted for nonresponse and, thus, reduce that potential bias.

Table 5-21. Differences between unweighted and weighted estimates, and between unadjusted and adjusted estimates, spring first grade: Spring 2012

Survey item	Sample size	Between unweighted and unadjusted <sup>1</sup>		Between unweighted and adjusted <sup>2</sup>		Between unadjusted <sup>1</sup> and adjusted <sup>2</sup>		
		Difference	Percent	Difference	Percent	Difference	Percent	
<b>Mean scores</b>								
Approaches to learning—Parent	11,252	0.01	0.32	0.00	0.00	0.01	0.32	
Impulsive/overactive—Parent	11,175	0.01	0.53	0.01	0.53	0.00	0.00	
Sad/lonely—Parent	11,244	0.00	0.00	0.00	0.00	0.00	0.00	
Self-control—Parent	11,254	0.01	0.33	0.00	0.00	0.01	0.33	
Social interaction—Parent	11,271	0.01	0.29	0.01	0.29	0.00	0.00	
<b>Proportion of students with the following characteristics from the parent interview</b>								
Parent is currently married, in civil union, or domestic partnership	11,531	1.09	1.46	3.01	4.04	1.92	2.62	
Non-English language used at home	11,523	3.66	12.51	2.89	9.88	0.77	3.01	
Has child care from relative	11,203	0.46	1.83	0.25	0.99	0.71	2.88	
Child is eager to learn—often/very often	11,250	0.10	0.11	0.01	0.01	0.09	0.10	
Child participated in organized athletic activities	11,353	0.90	1.55	0.72	1.24	1.62	2.75	
Child participated in performing arts programs	11,346	0.34	1.67	0.69	3.40	0.35	1.75	
Child helped with chores—often or very often	11,246	0.51	0.87	0.99	1.69	0.48	0.81	
Child has visited library/bookstore in past month	11,382	0.50	0.74	0.59	0.87	0.09	0.13	
Parent volunteered at school	11,532	0.37	0.64	1.30	2.26	1.67	2.89	
Parent has received food stamps in past 12 months	11,038	1.11	4.50	2.72	11.03	1.61	6.25	
Parent said home is not at all safe or somewhat safe to play	11,321	1.03	3.67	0.45	1.60	1.48	5.48	
<b>Mean estimate of the following student characteristics</b>								
Total number of persons in household	11,560	0.02	0.43	0.01	0.22	0.01	0.22	
Total number of siblings in household	11,560	0.01	0.65	0.01	0.65	0.00	0.00	
Total number of persons in household less than 18 years of age	11,521	0.01	0.39	0.02	0.78	0.01	0.39	

See notes at end of table.

Table 5-21. Differences between unweighted and weighted estimates, and between unadjusted and adjusted estimates, spring first grade: Spring—2012—Continued

Survey item	Sample size	Between unweighted and unadjusted <sup>1</sup>		Between unweighted and adjusted <sup>2</sup>		Between unadjusted <sup>1</sup> and adjusted <sup>2</sup>		
		Difference	Percent	Difference	Percent	Difference	Percent	
<b>Proportion of students with completed parent interview data and the following characteristics</b>								
Go to school in a city	11,560	1.22	3.96	0.31	1.01	1.53	5.17	
Go to school in a suburb	11,560	2.79	7.62	4.06	11.09	1.27	3.76	
Go to school in a town	11,560	2.73	33.70	2.87	35.43	0.14	1.29	
Go to school in a rural area	11,560	0.26	1.17	0.64	2.88	0.90	4.00	
White, non-Hispanic	11,560	4.00	7.84	0.46	0.90	3.54	6.43	
Black, non-Hispanic	11,560	0.65	6.17	2.98	28.30	2.33	20.84	
Hispanic	11,560	0.45	1.84	0.27	1.10	0.72	2.99	
Asian, non-Hispanic	11,560	3.65	46.03	3.76	47.41	0.11	2.57	
Pacific Islander, non-Hispanic	11,560	0.22	40.74	0.27	50.00	0.49	153.13	
American Indian or Alaska Native, non-Hispanic	11,560	0.16	23.88	0.47	70.15	0.31	37.35	
Two or more races, non-Hispanic	11,560	0.49	10.25	0.70	14.64	0.21	4.90	

<sup>1</sup> Unadjusted estimates are produced using the student base weight.

<sup>2</sup> Adjusted estimates are produced using weight W4CS4P\_40.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2012.

### 5.3.2 Effect of Nonresponse on Characteristics from the Base Year

In this section, the effect of nonresponse is explored by comparing estimates of selected base-year characteristics between base-year respondents and spring first-grade respondents.<sup>6</sup> The estimates are unadjusted estimates (i.e., they are weighted by the base weights). Base-year estimates are weighted by the base-year base weight that takes into account only the selection probabilities of the sampling units. Spring first-grade estimates are weighted by the spring-first grade base weight that takes into account the selection probabilities and the subsampling of movers to be followed.

Table 5-22 shows the differences in the unadjusted estimates between the kindergarten and spring first-grade respondents. As noted above, the characteristics presented in this table are from the base year, since the purpose of this analysis is to detect large changes in the same estimates due to sample attrition between the two years of data collection. Because of missing values, the kindergarten sample size is smaller than 18,174, the number of base year respondents. Similarly, the spring first-grade sample size is smaller than 15,653, the number of spring first-grade respondents. As in table 5-21, each difference is shown in both absolute value and as a relative difference (i.e., the difference divided by the kindergarten estimate). In general, the relative differences are small. They range from 0.12 percent to 5.67 percent, for an average of 1.61 percent. There are two characteristics with differences greater than 5 percent. These are estimates for the percent of the sample that is Asian and the percent of the sample that is Black. As shown in table 5-8, response rates for these two groups of children, particularly for the parent interview, were relatively lower in the spring of first grade than they were for children in other racial/ethnic groups. Since race/ethnicity is one of the characteristics used to construct nonresponse cells for nonresponse adjustments, any potential bias in would be reduced in estimates produced using weights adjusted for nonresponse.

---

<sup>6</sup> A base-year respondent has child data (scoreable assessment data or height or weight measurements or was excluded from assessment due to lack of accommodation for a disability) or parent interview data from at least one round of data collection in the base year. A spring first-grade respondent has child data (scoreable assessment data or height or weight measurements or was excluded from assessment due to lack of accommodation for a disability) or parent interview data from the spring first-grade round of data collection

Table 5-22. Differences between unadjusted estimates from kindergarten and unadjusted estimates from spring first grade: School year 2010–11 and Spring 2012

Survey item	Sample size		Unadjusted estimates and difference between kindergarten and spring first grade <sup>1</sup>			
	Kindergarten	First grade	Kindergarten	First grade	Difference	Percent
<b>Proportion of students with the following characteristics in kindergarten</b>						
Go to school in a city	17,525	15,303	32.79	32.68	0.11	0.34
Go to school in a suburb	17,525	15,303	33.35	33.61	0.26	0.78
Go to school in a town	17,525	15,303	11.20	10.85	0.35	3.13
Go to school in a rural area	17,525	15,303	22.65	22.86	0.21	0.93
Go to public school	17,791	15,527	89.07	89.19	0.12	0.13
Go to private school	17,791	15,527	10.93	10.81	0.12	1.10
White, non-Hispanic	18,124	15,631	50.67	51.22	0.55	1.09
Black, non-Hispanic	18,124	15,631	13.76	12.98	0.78	5.67
Hispanic	18,124	15,631	25.62	25.59	0.03	0.12
Asian, non-Hispanic	18,124	15,631	4.44	4.69	0.25	5.63
Native Hawaiian/Pacific Islander, non-Hispanic	18,124	15,631	0.37	0.38	0.01	2.70
American Indian/Alaska Native, non-Hispanic	18,124	15,631	1.06	1.08	0.02	1.89
Two or more races, non-Hispanic	18,124	15,631	4.08	4.06	0.02	0.49
Parents' highest education level is less than high school	16,005	14,037	9.44	9.37	0.07	0.74
Parents' highest education level is high school or equivalent, some college, associate or career/technical degree	16,005	14,037	53.04	52.02	1.02	1.92
Parents' highest education level is bachelor's degree or higher	16,005	14,037	37.52	38.61	1.09	2.91
Parent is currently married, in civil union, or domestic partnership	12,481	12,133	72.89	73.56	0.67	0.92
Non-English language used at home	13,611	12,235	7.90	7.93	0.03	0.38
Household poverty status is below poverty threshold	13,527	12,172	25.96	25.40	0.56	2.16
Household poverty status is at or above poverty threshold but below 200 percent of poverty threshold	13,527	12,172	22.41	22.23	0.18	0.80
Household poverty status is at or above 200 percent of poverty threshold	13,527	12,172	51.63	52.37	0.74	1.43

<sup>1</sup> Unadjusted estimates are produced using the kindergarten base weight for kindergarten and the first-grade base weight for first grade.  
 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, spring 2011, and spring 2012.

## 6. DATA PREPARATION

In the first-grade rounds, two types of data collection instruments were again used for the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011): computer-assisted interviews and assessments (CAI) and self-administered paper forms (hard copy). As in the base year, 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 CAI programs used by assessors or interviewers to collect these data. The teacher and school administrator hard-copy 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 then 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 briefly describe the data preparation activities for both modes of data collection, focusing on the first-grade activities. More detailed information on all of these data preparation activities can be found in the *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* (NCES 2015-074) (Tourangeau et al. 2015).

### 6.1 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, which interviewers had entered into the CAI system verbatim.

---

<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.

**Review of “other, specify” items.** As in the base (i.e., kindergarten) year, trained data preparation staff reviewed respondents’ verbatim “other, specify” text responses. There was a small number of items in the parent interview for which additional categories were added to categorize “other, specify” text responses that occurred with sufficient frequency. For example, a sufficient number of parents provided an “other, specify” response to the question about diagnoses children received as a result of having their hearing evaluated by a professional, reporting that no problem was found. A new response category was added to classify these responses. Text responses that did not fit into any preexisting category and were not common enough to be coded into new categories were left coded as “other” in the data. New categories added as a result of this review of “other, specify” responses are noted as such in exhibit A-1. There were no “other, specify” items in the child assessments.

**Parent occupation coding.** Similar to the base-year procedures, data preparation staff also reviewed respondents’ verbatim responses to questions about their occupation and were trained to code them into categories 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 coded according to the NHES coding scheme; the more detailed scheme from the 1980 manual was used to determine final codes for occupations requiring more detailed consideration to identify the most 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 Kindergarten Class of 1998–99 and the ECLS-K:2011 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 with 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. For first grade, almost half of the reported occupations were autocoded in this manner (4,269 occupations or 47.4 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 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 (52.6 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). A coding supervisor adjudicated all reported occupations for which the codes assigned independently by each coder differed.

Of all the occupations that were assigned a code, 28.6 percent (2,571) 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 4,269 reported occupations that were autocoded, 616 occupations (14.4 percent) required adjudication because the coder disagreed with the autocoding. Of the 4,734 reported occupations that were manually coded, 1,955 (41.3 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 148 manually coded occupations (1.6 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.

Adjudication rates were somewhat higher in first grade than in the base year because more coding staff were assigned to the occupation coding activity; some of the staff, though trained on the coding scheme and rules, were new to the task. The occupation coding supervisor for first grade participated in base year occupation coding as well and was familiar and experienced with the NCES coding scheme. When the supervisor disagreed with the "same code" assigned by the two coders, the case

was subject to additional examination, and together the supervisor and coders considered the merits of the proposed codes before a final code was assigned.

### **6.1.1 Household Roster Review**

The fall first-grade parent interview was much shorter than the parent interview included in other data collection rounds and did not include a household roster in which information on household composition was collected. Therefore no household roster review was required for that round of data collection. The spring first-grade parent interview did include a household roster. Following protocols established during the base year, three general types of checks were run on the spring household roster information to identify missing or inaccurate information that would require 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 65 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. In this example, these cases would have been 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, if a review of the audio recording from the interview indicated the relationship of the second mother was documented incorrectly by the interviewer—that the second mother was *not* a mother to the focal child—in this example, the relationship of the second mother would have been edited (corrected).

A flag on the data file (X4EDIT) identifies cases that were reviewed or edited for any of the reasons described above; the flag is set to 1 if the case was identified for review for any of these

household roster checks. Note that a code of 1 does not necessarily indicate that the data were changed; if the data were reviewed and found to be as reported by the respondent or there was no clear error to be fixed, the reviewed data were left as is. There were just under 1,500 cases (12 percent) identified for household roster review in spring first grade.

## **6.1.2 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 abbreviated parent interview in the fall first-grade round, the respondent had to answer questions in the section on time use (TUQ) for the parent interview data to be included on the data file. There were eight partially completed fall parent interviews for which the respondent answered at least some questions in the TUQ section but did not finish the entire interview. For the spring first-grade round, the respondent had to answer questions at least through the section on family structure (FSQ). There were 655 partially completed spring parent interviews for which the respondent answered at least some questions through the FSQ section but did not complete 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.”

## **6.2 Receipt, Coding, and Editing of Hard-Copy Questionnaires**

### **6.2.1 Receipt Control**

Receipt control was managed in the same manner for first grade as in the base year. Refer to the base-year User’s Manual for details.

---

<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 applicable section for the parent interview data to be included on the file. The last question in the TUQ section (fall round) that applied to all cases was TUQ040 (number of weeks child away from parents over the summer). The last question in the FSQ section (spring round) that applied to all cases was FSQ200 (marital status).

## **6.2.2 Scanning of Hard-Copy Questionnaires**

Scanning of hard-copy questionnaires was managed in the same manner for first grade as in the base year. Refer to the base-year User’s Manual for details.

## **6.2.3 Coding for Hard-Copy Questionnaires**

Similar to the process described for the parent interview and identical to base-year practices, “other, specify” text responses were reviewed by the data editing staff. There was a small number of items in the hard-copy questionnaires for which additional categories were added to categorize “other, specify” text responses that occurred with sufficient frequency. For example, a sufficient number of teachers provided an “other, specify” response to the question about why a child had fallen behind in school work, reporting that the child was easily distracted or lacked focus or attention. A new response category was added to classify these responses. Text responses that did not fit into any preexisting category and were not common enough to be coded into new categories were left coded as “other” in the data.

## **6.2.4 Data Editing**

The data editing process for hard-copy questionnaires was managed in the same manner for first grade as in the base year. Refer to the base-year User’s Manual for details.

## 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–first grade data file. The data are provided on CD-ROM and accessible through software called the electronic codebook (ECB). The ECB 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 installing the ECB are provided in chapter 8. A help file with further information about using the ECB is included on the CD-ROM.

The kindergarten–first grade file provides data at the child level and contains one record for each of the 18,174 children who participated, or whose parent 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 “F4SCHZIP” for the zip code of the school. The file includes 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). Among the 18,174 participants from kindergarten, the file includes fall 2011 data for those with a child assessment or parent interview in fall 2011, and spring 2012 data for those with a child assessment or parent interview in spring 2012. The raw data are provided in an ASCII data file named childK1p.dat. To develop data files for statistical analyses, analysts should use the ECB software available on the CD-ROM or the file record layout. The ECB can 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, as any changes made to that file will alter the raw data obtained during data collection.

This chapter focuses primarily on the composite variables that were created from information obtained during the first-grade data collections. Most of the variables have been computed in the same way as those that were created using information collected in the base year. However, a small number of them differs slightly either because the same exact information available in the base year was

---

<sup>1</sup> The Field Management System includes information collected about 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.

not available in first grade or because it was determined there was a better way to compute the composite after release of the base-year data file. These differences are noted in the descriptions of the variables. To the extent feasible, the composite variables have also 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 two studies and facilitates comparisons between the two cohorts. However, some composites were created differently in the ECLS-K:2011 than in the ECLS-K. Documentation for both studies should be consulted before conducting cross-cohort analyses using composites. The user's manual for the base year of the ECLS-K:2011 should be consulted for detailed descriptions of the composite variables computed for rounds 1 and 2. The user's manuals for the ECLS-K are available on the NCES website (<http://nces.ed.gov/pubsearch/getpubcats.asp?sid=024>).

As discussed in Appendix B, 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 B 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 of the study and describe identification variables, missing values, and data flags. Section 7.5 provides details about the creation of composite variables, and section 7.6 focuses on the methodological variables. Section 7.7 discusses variables used to identify children who changed teachers between the fall and spring data collections. Finally, section 7.8 discusses variables about summer school and vacation.

## **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 (1) a letter designating the source and (2) a number indicating the data collection round. The number 3 is used for fall 2011 and 4 is used for spring 2012. Composite variables derived from data collected in both the fall and spring include both 3 and 4 in their names. These variable naming conventions are used consistently in the data file. The prefixes used for first-grade variables in the kindergarten–first grade data file are listed in exhibit 7-1.

Exhibit 7-1. Prefixes for first-grade variables: School year 2011–12

Variable prefix	Source of data
A4	Data collected from the spring 2012 teacher-level questionnaire for children in first-grade or higher
A4K	Data collected from the spring 2012 teacher-level questionnaire for children still in kindergarten
C3	Data/scores from the fall 2011 direct child assessment
C4	Data/scores from the spring 2012 direct child assessment
D4	Data collected from the spring 2012 special education teacher-level questionnaire
E4	Data collected from the spring 2012 special education child-level questionnaire
F3	Data from the fall 2011 Field Management System (FMS)
F4	Data from the spring 2012 Field Management System (FMS)
IF	Imputation flags
T3	Data collected from the fall 2011 teacher child-level questionnaire
T4	Data collected from the spring 2012 teacher child-level questionnaire for children in first-grade or higher
T4K	Data collected from the spring 2012 teacher child-level questionnaire for children still in kindergarten
P3	Data collected from the fall 2011 parent interview
P4	Data collected from the spring 2012 parent interview
S4	Data collected from the spring 2012 school administrator questionnaire
X_	Composite/derived variables not specific to a particular round
X3	Fall 2011 composite/derived variables
X4	Spring 2012 composite/derived variables
X34	Composite/derived variables using fall 2011 and spring 2012 data
W	Analytic weights and stratum/cluster identifiers

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2011 and spring 2012.

Some variable names end with a suffix denoting a particular feature of the variable of which users should be aware. The suffix “\_R” indicates that the variable has been updated or revised since its release in the base-year data file. The suffix of “2” is used for composites that are based on new questions or have new categories. The suffix “\_I” indicates that missing data for the variable have been imputed, or a composite variable is based on imputed source variables. Imputation is discussed in section 7.5.2.9.

## 7.2 Identification Variables

The kindergarten–first-grade 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) is the same number as the child ID.

Unlike in the ECLS-K, CHILDDID 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 kindergarten–first grade restricted-use data file does contain IDs for the child’s general classroom teacher in each round, special education teacher (if applicable) in each round, school in each round, and before- and after-school care provider in the kindergarten year (if the child was in before- or after-school care with one provider at least 5 hours per week). 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.

Exhibit 7-2. Identification variables included in the ECLS-K:2011 kindergarten–first grade restricted-use data file: School year 2011–12

Order on file	Variable	Label
1	CHILDDID	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	S3_ID	FALL 2011 SCHOOL IDENTIFICATION NUMBER
6	S4_ID	SPRING 2012 SCHOOL IDENTIFICATION NUMBER
7	T1_ID	FALL 2010 TEACHER IDENTIFICATION NUMBER
8	T2_ID	SPRING 2011 TEACHER IDENTIFICATION NUMBR
9	T3_ID	FALL 2011 TEACHER IDENTIFICATION NUMBER
10	T4_ID	SPRING 2012 TEACHER IDENTIFICATION NUMBR
11	D2T_ID	SPRING 2011 SPECIAL ED TEACHER ID NUMBER
12	D4T_ID	SPRING 2012 SPECIAL ED TEACHER ID NUMBER
13	CC_ID <sup>1</sup>	CHILD CARE PROVIDER IDENTIFICATION NUM
14	TWIN_ID	CHILDDID FOR FOCAL CHILD’S TWIN

<sup>1</sup> Kindergarten only.

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, spring 2011, fall 2011, and spring 2012.



Children's general classroom teachers are identified in the restricted-use file with the ID variables T3\_ID, the fall 2011 teacher identification number, and T4\_ID, the spring 2012 teacher identification number. In first grade, children were expected to have a single general classroom teacher for all subjects, so each child was linked to only one classroom teacher at each round. If a teacher had more than one study child in his or her classroom, each child was assigned the same classroom teacher ID. For children in the fall 2011 subsample who had the same teacher for the entire school year, T3\_ID and T4\_ID are identical. For children who had 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, D4T\_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, D4T\_ID does not match T4\_ID for these students. The ID variables S3\_ID and S4\_ID indicate the school the child attended at the time of the fall 2011 and spring 2012 data collections, respectively. As with the general classroom teacher ID variables, if a school had more than one study child in it, each child was assigned the same school ID, and for children in the fall 2011 subsample who attended the same school for the entire school year, S3\_ID and S4\_ID are identical.

Each child has a school identification number for each round; however, not all identification numbers represent specific schools. Instead, certain identification numbers have been designated to identify children who were homeschoolers (9100), moved to a nonsampled county (9997), were unlocatable (9995), moved outside the United States (9993), were movers who were not subsampled to be followed into their new schools (9998), were deceased (9994), or whose parents asked for them to be removed from the data (9999).

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 is no special education teacher associated with that child, and D4T\_ID is 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, there is an ID provided in D4T\_ID whether or not the special education teacher responded to the spring 2012 special education teacher questionnaires. There could be missing special education data for the child's teacher-level or child-level questionnaire (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 child-level questionnaire for a child to whom the teacher was also linked, both children would have the same

D4T\_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 D4T\_ID are missing.

### 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).

Exhibit 7-3. Missing value codes used in the ECLS-K:2011 data file

Value	Description
-1	Not applicable, including legitimate skips
-2	Data suppressed (public-use data file only)
-4	Data suppressed due to administration error
-5	Item not asked in School Administrator Questionnaire form B
-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 2011 and spring 2012.

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 self-administered 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 found in the spring 2012 school administrator questionnaire version A (SAQ-A) question 18. Question 17 asks whether the school participates in the U.S. Department of Agriculture’s (USDA) school breakfast program. If the answer to question 17 is “yes,” the respondent is directed to skip to

question 19 asking what time breakfast is served. The data for question 18 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 17 and skipped to question 19. If the answer to question 17 is "no," the respondent is supposed to proceed to question 18. If question 17 and 18 were both left blank by the respondent, data for questions 17 and 18 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 round 3 and round 4 variables (X3RTHETK1, X4RTHETK1, X3SERSTHK1, X4SERSTHK1, X3MTHETK1, X4MTHETK1, X3STHETK1, X4STHET, X4SESL\_I), -1 is a valid value and should not be identified as missing data.

In order to protect the confidentiality of study participants, some data are suppressed in the public-use data file. The code -2 indicates the suppression of data for confidentiality. The suppression code -4 is used in rare instances in which there was a problem in the administration of an item that led to a high proportion of cases having missing data on the affected item, and the data that were collected were not useful. Although the administration error typically did not affect all cases, the -4 missing data code is assigned to all cases, whether or not the specific case had a response or was missing data due to the error.

Information about a number of school characteristics that was collected in the SAQ-A (the school administrator questionnaire given to schools that were new to the study or had not previously completed an SAQ) was not collected in the SAQ-B (the school administrator questionnaire given to schools that had previously completed an SAQ). This data collection approach reduced respondent burden by eliminating questions about school characteristics that were unlikely to change in 1 year, such as public/private control and the grade levels taught at the school. The code -5 is a special "not applicable" code indicating that a child does not have a value for the given school characteristic variable because it was not included in the abbreviated SAQ-B.

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 or teacher 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 or

teacher data. For questions where “don’t know” is one of the options explicitly provided, a -8 is not coded for those who choose this option; instead the “don’t know” response is 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). However, if a gate question<sup>2</sup> was left blank, but valid responses are provided to follow-up questions, the valid responses are included in the data file. For example, in the spring 2012 school administrator questionnaire version A (SAQ-A), question E1 asks, “Do any of the children in this school come from a home where a language other than English is spoken?” If the school administrator left E1 blank (i.e., unanswered), but then provided a valid response for question E2 which asks, “What percentage of children in this school and in first grade are English language learners (ELL)?”, E1 is coded -9 and the information from E2 is included in the data file as reported. If a gate question and its follow-up questions were left blank, all of the questions (gate and follow-up) are coded as -9 (not ascertained).

For the school and teacher self-administered questionnaires, -9 (not ascertained) indicates 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 nonresponse. The -9 (not ascertained) code is also used in the parent interview data when the interview ended before it was finished. In these cases, the code of -9 is used for all variables associated with interview questions that came after the point at which the parent ended the interview. One exception to this coding scheme is the pointer variables.<sup>3</sup> The -9 code was also used in the parent interview for questions that were edited<sup>4</sup> or inadvertently skipped in computer-assisted interviewing (CAI) 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); codes -7 and -8 are used only when respondents state a response of “don’t know” or “refused,” and not as a result of editing or inadvertently skipping a question as a result of CAI programming.

---

<sup>2</sup> A gate question is the first question in a series with skips to one or more follow-up questions.

<sup>3</sup> Pointer variables indicate the household roster number of a person in the household who was the subject of questions about a parent figure.

<sup>4</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: spring 2012 FSQ (Family Structure), PLQ (Primary Language(s) Spoken), DWQ (Discipline, Warmth, and Emotional Supportiveness), NRQ (Nonresident Parents), PEQ (Parent Education and Human Capital), and EMQ (Parent Employment).

Missing values (-1, -7, -8, or -9) in questions that allow for more than one response are coded the same for all coding categories used for the question. For example, in the spring 2012 parent interview, if the question about languages spoken in the home (PLQ040) has the answer of -8 (don't know), then all the languages in the same question (e.g., Arabic, French, Korean), in addition to any categories added for coding responses that were not in the computer-assisted personal interview (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 converted to another value when the data are extracted into specific processing packages. For instance, SAS converts 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 analysis software. 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 spring 2012 teacher-level questionnaire (Q A21) skipped the next question (Q A22) 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 A22 to a value of 0 (thereby indicating no English language learners in the classroom) in those instances where a teacher indicated in Q A21 that there were no English language learners in the classroom. It is advised that users crosstabulate all gate questions and follow-up questions before proceeding with any recodes or use of the data.

Composite variables may be derived using data from one or more instrument(s) in one round of data collection, from instrument data across multiple rounds, and from both instrument data and data from administrative records in one or more rounds. If a particular composite is inapplicable for a certain case, as school composite variables are for children who are homeschooled, 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) code is not used for any of the composites except for the height and weight composites. The -8 (don't know) code is not used for any of the composites.

There is variation in the use of system missing for composite variables. Some child demographic variables (date of birth, sex, and race/ethnicity) are considered applicable to all 18,174 children who participated in the base year and are not assigned a value of system missing for any case. For composite variables using data from both a survey instrument and other administrative or school data sources, only nonparticipants in a given round of data collection are assigned values of system missing. For composite variables using data from only one instrument, (e.g., X4LANGST, primary household language, is derived from the spring 2012 parent interview), a value of system missing is assigned if the instrument on which they are based was not completed; if the instrument was completed and an item used in the composite derivation was missing, the composite is assigned a value of -9 as described above.

#### **7.4 Data Flags**

##### **7.4.1 Child Assessment Flags (X3RDGFLG, X4RDGFLG, X3MTHFLG, X4MTHFLG, X3SCIFLG, X4SCIFLG, X3NRFLG, X4NRFLG, X3DCCSFLG, X4DCCSFLG, X3HGTFGL, X4HGTFGL, X3WGTFGL, X4WGTFGL, X3FLSCRN, X4FLSCRN, X3ASMTST, X4ASMTST, X3EXDIS, X4EXDIS)**

Fourteen flags indicate the presence or absence of child assessment data. X3RDGFLG and X4RDGFLG denote whether a child had scoreable English or Spanish reading assessment data in fall 2011 and spring 2012, respectively; X3MTHFLG and X4MTHFLG denote whether a child had scoreable English or Spanish mathematics assessment data in fall 2011 and spring 2012, respectively; X3SCIFLG and X4SCIFLG denote whether a child had scoreable science assessment data in fall 2011 and spring 2012, respectively. X3NRFLG and X4NRFLG indicate the presence of numbers reversed scores. X4DCCSFLG and X4DCCSFLG indicate the presence of *Dimensional Change Card Sort* (DCCS) scores. X3HGTFGL, X4HGTFGL, X3WGTFGL, and X4WGTFGL indicate the presence of data for height and weight.

If a child answered fewer than 10 questions in any direct cognitive assessment domain (reading, mathematics, or science), the assessment was not considered scoreable. Only items actually

attempted by the child counted toward the scoreability threshold.<sup>5</sup> A flag value of 1 indicates that the child responded to 10 or more questions in the assessment for that domain, 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. For the Numbers Reversed and DCCS assessments, a child could receive a score as long as the child started the assessment task and answered at least one test question following the practice items in order to have a W-ability score (for Numbers Reversed) or at least one shape game item in order to have a post-switch score (for DCCS). Flags for each of the scores are coded 1 if the child has a W-ability score (for Numbers Reversed) or post-switch score (for DCCS), coded 0 if the child participated in the child assessment but does not have a score, and set to system missing if the child did not participate in the child assessment.

Two composites (X3FLSCRN and X4FLSCRN) indicate language of administration for the child assessments. 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 language screener. Cases coded 1, *Spanish speaker, routed through Spanish assessment*, did not demonstrate sufficient basic English skills as determined by their score on the language screener and, because Spanish was their primary language, were routed through the assessment battery in Spanish. Unlike in the kindergarten year, there were no children who spoke a language other than English or Spanish and failed the language screener, and, therefore, did not receive the full cognitive battery or executive function assessments in English. For this reason, these variables do not have any children with a code of 2, *Other language speaker (not Spanish/English)*, like the comparable base-year variables (X1FLSCRN and X2FLSCRN).

The child's assessment status for the fall of 2011 and spring of 2012 is indicated by the composites X3ASMTST and X4ASMTST, respectively. The valid values include 1 for children who have assessment data in the data file,<sup>6</sup> 2 for those children who were excluded due to disability (and, therefore, do not have assessment data in the data file), and 3 for children who do not have assessment data in the data file and were not excluded due to disability. Note that those excluded due to disability (code 2) are considered to be participants in the data collection round.

In addition, two composite variables use FMS data to indicate whether the child was excluded from the assessment due to a disability: X3EXDIS and X4EXDIS. Study team leaders obtained information from school staff in the fall of 2011 and spring of 2012 about whether a child had an IEP on

---

<sup>5</sup> See chapter 3 for a complete discussion of assessment scoreability.

<sup>6</sup> Having child assessment data includes (1) having reading and/or mathematics and/or science scores, (2) having at least one executive function score, or (3) having a height or weight measurement.

file and if any information in a child's IEP indicated that he or she would need Braille, large print, or sign language. It was also determined whether the IEP specifically prohibited the child from participating in standardized assessments such as those conducted in the ECLS-K:2011. If so, the child was not assessed, and *XnEXDIS* was coded 1 (child was excluded from the assessment due to a disability). Otherwise, *XnEXDIS* was coded 0 (child was not excluded from the assessment due to a disability). Students could have been excluded from taking the assessment for other reasons (e.g., lack of parental consent); these children are also coded 0 on *XnEXDIS*. The number of cases with system missing values varies across the four occurrences of *XnEXDIS*. This reflects the sample for each round. The cases that are system missing on *X1EXDIS* are cases that were added to the sample in the spring of the base year and thus were not members of the sample in round 1. The cases that are system missing on *X3EXDIS* are those that were not selected for the fall subsample for round 3. There are no cases coded system missing on these variables in rounds 2 and 4.

#### **7.4.2 Parent Data Flags (X3PARDAT, X4PARDAT, X4EDIT, X3BRKFNL, X4BRKFNL)**

There are two flags that describe the presence of parent interview data. *X3PARDAT* is coded as 1 if there was a fully completed or partially completed interview in fall 2011. A partially completed parent interview in fall 2011 was one that ended before all applicable questions were answered, but that had answers to questions through section TUQ (time use).<sup>7</sup> *X4PARDAT* is coded as 1 if there was a fully completed or partially completed interview in spring 2012. A partially completed interview in spring 2012 was one that ended before all applicable questions were answered, but that had answers to questions through section FSQ (family structure).<sup>8</sup> In addition, the flag *X4EDIT* indicates whether, for a given case, household matrix data were reviewed or edited. It is coded as 1 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) or reviewed for editing even if no data were changed (e.g., if there were data that suggested a possible problem, but after examining the case the data were left as they were reported). This flag is

---

<sup>7</sup> A case that did not complete the entire parent interview had to complete section TUQ to be counted as a partial complete in fall 2011. The TUQ section would be considered complete with one question answered if TUQ040 was not greater than or equal to 1 (the child was not away from home for a least a week during the summer). If TUQ040 was greater than or equal to 1, TUQ060 also had to be answered. If TUQ060=91 (some other place), TUQ060OS had to be answered.

<sup>8</sup> A case that did not complete the entire parent interview had to complete all of section FSQ that was applicable to it to be counted as a partial complete in spring 2012. The FSQ section was considered complete if the country of origin questions FSQ212, FSQ212OS, and FSQ213 (used to create country of origin variables P4PARCT1, P4PARCT2, P4PAREM1, and P4PAREM2 for parent 1 and parent 2) that were applicable were answered in spring 2012 or, if nonmissing data were present for country of origin in spring 2010 (and thus did not need to be asked again), FSQ200 (P4CURMAR) was answered in spring 2012. If a case had missing data for country of origin, missing data for the age when the person moved to the United States, or if the question about age was not asked in spring 2011 because the person lived in a U. S. territory, the country of origin questions were asked in both spring 2011 and spring 2012.



included to make users aware that data cleaning or review of household matrix data was necessary for a particular case. If something about the household composition or characteristics of the household members seems unusual (e.g., the child is identified as having a 34-year-old brother in the household), and this flag is set to 1, this is an indication that the unusual data were reviewed and left as is or edited to appear as they do in the data file.

The composite variables X3BRKFNL and X4BRKFNL indicate a final breakoff from the round 3 and round 4 parent interviews, respectively. These composites identify the variable associated with the last question answered by a parent who decided to terminate an interview. The breakoff point is provided only for those parent interviews with a status of partially complete. Cases for which a parent completed the interview have a value of -1, indicating that the case was not a breakoff.

### **7.4.3 Teacher Flags (X3TQCDAT, X4TQC1DAT, X4TQCKDAT, X4TQT1DAT, X4TQTKDAT, X4SETQA, X4SETQC)**

Two types of data were collected from teachers using two different questionnaires, a teacher-classroom-level questionnaire and a child-level questionnaire. The first type of data, teacher and classroom data, were collected in the spring 2012 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 used to evaluate children's progress. 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 in fall 2011 and spring 2012.

The data file contains flag variables that can be used to determine whether data were obtained from a teacher.<sup>9</sup> There are separate 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 (X4TQT1DAT and X4TQTKDAT for the teacher-level questionnaire; X3TQCDAT,

---

<sup>9</sup> An identification number is provided in the teacher ID variables T3\_ID and T4\_ID as long as a child was linked to a general classroom teacher, even if the teacher did not complete any questionnaires.

X4TQC1DAT, and X4TQCKDAT for the child-level questionnaire). By the second year of the study, most children were in the first grade. For children in the first grade, teachers were given questionnaires specific to first grade, and the flags indicating the presence or absence of data from these questionnaires are X4TQT1DAT and X4TQC1DAT. For children who were still in kindergarten in the second year of the study, their teachers were given questionnaires specific to kindergarten, and the flags indicating the presence or absence of data from these questionnaires are X4TQTKDAT and X4TQCKDAT. The child-level questionnaire in the fall of 2011 was the same for all children, regardless of their grade; therefore, only one child-level teacher questionnaire data flag was created for the fall (X3TQC1DAT). There are six children who were enrolled in kindergarten in spring 2012, but were in a mixed-grade classroom with first-graders; for these children the teachers completed the teacher-level questionnaire for first grade and the child-level questionnaire for kindergarten.

Two flags indicate the presence of data from each of the two special education teacher questionnaires for spring 2012 (X4SETQA for the teacher-level questionnaire; X4SETQC for the child-level questionnaire). Cases linked to a special education teacher who did not complete a questionnaire and cases that were not linked to a special education teacher have a value of 0 on these flags.

Users interested in information about whether special education teacher questionnaires were requested, regardless of whether special education questionnaires were completed in the spring of 2012, can use the composite variable X4SPECS, which is based on information from the FMS rather than the special education questionnaires. X4SPECS is described further below in section 7.5.1.12.

#### **7.4.4 School Administrator Data Flag (X4INSAQ)**

There is a flag for the school administrator questionnaire (X4INSAQ) that is coded 1 if there are data from the spring 2012 school administrator questionnaire (SAQ) and 0 if there are no data from the SAQ.

#### **7.4.5 Other Child Status Flags (X3DEST, X4DEST, X3FALLSMP)**

Three additional child status flags are included in the data file. The variable X3DEST is nonmissing for respondents in the fall round and indicates whether the child was in a destination school in

the fall of 2011. Destination schools are schools for which it was determined that at least four ECLS-K:2011 children moved into them; this typically happened when children attended a school that ended with a particular grade (e.g., a school that only provided education through kindergarten) or a school closed. This variable is 1 if the school a child attended was identified as a destination school; otherwise, it is 0. It is set to system missing if the child was in the fall 2011 subsample, but was not a fall 2011 participant, or if the child was not in the fall 2011 subsample. X4DEST is nonmissing for respondents in the spring round and is 1 if the child attended a destination school in the spring of 2012, and 0 otherwise.

The identification variable X3FALLSMP indicates whether a child was selected to participate in the round 3 fall subsample. A value of 1 indicates the child was selected and either participated in the fall 2011 child assessment or had a parent complete the fall parent interview, while 2 indicates the child was selected but does not have a complete child assessment or parent interview. A value of 3 indicates the child was not selected for the fall subsample.

## **7.5 Composite Variables**

To facilitate analysis of the survey data, composite variables were derived and included in the data file. This section identifies the source variables and provides other details for the composite variables. Most composite variables were created using two or more variables that are also available in the data file, each of which is named in the text that explains the composite variable. Other composites, for example, X\_CHSEX\_R, were created using data from the Field Management System (FMS) and the sampling frame, which are not available in the data file. Note that some of these variables have been updated or revised since their release on the base-year data file. Such variables have an “\_R” suffix in their name.

### **7.5.1 Child Composite Variables**

There are many child-level composite variables on the child catalog. The nonassessment 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 Date of Birth (X\_DOBYY\_R and X\_DOBMM\_R)**

Information about child's date of birth was collected from schools at the time of sampling and stored in the FMS, collected from parents in the fall kindergarten parent interview, confirmed by parents in the spring kindergarten parent interview, and asked again in the fall 2011 or spring 2012 interviews if parent interview items about the child's date of birth were missing due to unit or item nonresponse. The child's date of birth composite variable was derived from information collected in the parent interview (P4CHDOBM, P4CHDOBY, P3CHDOBM, and P3CHDOBY) and the composite date of birth variable from the base year (X\_DOBMM, X\_DOBDD<sup>10</sup> and X\_DOBYY). The parent was only asked child's date of birth if the parent had not confirmed it in a prior interview. Specifically, information from the spring 2012 parent interview was prioritized if available, then data from the fall 2011 parent interview if available, and finally data from the base-year composite. This information was updated for a small number of children based on information collected from parents in the fall 2011 or spring 2012 parent interviews.

### **7.5.1.2 Child's Age at Assessment (X1KAGE\_R, X2KAGE\_R, X3AGE, X4AGE)**

The child's age at assessment in months (X3AGE, X4AGE) was calculated by comparing the date the child completed the ECLS-K:2011 direct child assessment (F3/4ASMTMM [R3/4 FMS Child Assessment Month], F3/4ASMTDD [R3/4 FMS Child Assessment Day], F3/4ASMTYY [R3/4 FMS Child Assessment Year]) to the child's date of birth (X\_DOBDD\_R [day of birth], X\_DOBMM\_R [month of birth], X\_DOBYY\_R [year of birth]). The calculation of age in months uses the number of days in each month and is adjusted for leap years. 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.<sup>11</sup>

The kindergarten–first grade data file also includes age at assessment variables for the base-year (X1KAGE\_R, X2KAGE\_R). These are revised versions of the age at assessment variables that were in the kindergarten file (X1KAGE, X2KAGE). The X1KAGE and X2KAGE variables in the kindergarten file were intended to be an approximate age at assessment and were calculated by dividing the total

---

<sup>10</sup> X\_DOBDD and X\_DOBDD\_R indicate the child's exact day of birth. These are administrative variables that are not included in the K-1 longitudinal data file for issues related to confidentiality.

<sup>11</sup> Some assessments that were partially but not entirely completed during the field period were assigned a final status after the end of the data collection round. Thus, assessment dates after the end of the field period reflected the timing of the assignment of the final disposition, not the actual date of assessment. These cases were adjusted so that the assessment date reflects the modal date for the school.

number of days (between the child's birth date and the assessment date) by 30 to calculate the child's age at assessment in months. The revised variables for age at assessment in kindergarten are based on the number of days in each month and are adjusted for leap years.

### **7.5.1.3 Child's Sex (X\_CHSEX\_R)**

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 kindergarten parent interview, confirmed by parents in the spring kindergarten parent interview, and asked again in the fall 2011 or spring 2012 interviews if parent interview items about the child's sex were missing due to unit or item nonresponse. The composite variable indicating the child's sex was derived using data from (P4CHSEX, P3CHSEX, or X\_CHSEX, the composite variable from the base year which includes data from the base-year parent interviews and FMS) with an order of preference for which source should be used. Spring 2012 data for the child's sex were given priority for creating the composite, followed by the fall 2011 data. In creating the composite, the spring 2012 data were given priority over other values because they were collected in the most recent interview and any values that were missing from the parent interview due to unit or item nonresponse had the potential to be updated in spring 2012. If there had not been a parent interview prior to fall 2011 or spring 2012, the value from the most recent interview in which the child's sex was collected was used. If the data about the child's sex were not collected in those rounds because information about child sex was collected in the base year, then the composite from the base year was used. This information was updated for a small number of children based on information collected from parents in the fall 2011 or spring 2012 parent interviews.

### **7.5.1.4 Race/Ethnicity (X\_AMINAN\_R, X\_ASIAN\_R, X\_HAWPI\_R, X\_BLACK\_R, X\_WHITE\_R, X\_HISP\_R, X\_MULTR\_R, X\_RACETHP\_R, and X\_RACETH\_R)**

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 (X\_AMINAN\_R, X\_ASIAN\_R, X\_HAWPI\_R, X\_BLACK\_R, X\_WHITE\_R, X\_HISP\_R, X\_MULTR\_R) derived from data collected in the parent interview; (2) a single race/ethnicity composite derived from data collected in the parent interview (X\_RACETHP\_R); and (3) a race/ethnicity composite that draws from either the parent-reported data about the child's race or the FMS (X\_RACETH\_R), with FMS data used only if parent

responses about the child's race were missing. Parent interview responses about the races of the child's biological parents were not used in the creation of child race composite variables. Race/ethnicity information was updated in these composite variables for a small number of children based on information collected from parents in the spring 2012 parent interviews.

Parents were asked about the child's ethnicity in the spring of 2012 if ethnicity in the parent interview items for the child were missing due to unit or item nonresponse. Specifically, parents were asked whether or not their child was Hispanic. Parents were also asked about the child's race in spring 2012 only if parent interview race data for the child were missing. Parents were asked to indicate in 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>12</sup>

The seven dichotomous ethnicity and race variables (X\_HISP\_R, X\_AMINAN\_R, X\_ASIAN\_R, X\_HAWPI\_R, X\_BLACK\_R, X\_WHITE\_R, X\_MULTR\_R) were created using parent data from spring 2012, or if those data were not asked in spring 2012 because they were asked in a previous round of the study, the dichotomous composites were set to the values of the dichotomous race composites that used parent data from the base year (X12HISP, X12AMINAN, X12ASIAN, X12HAWPI, X12BLACK, X12WHITE, X12MULTR). Otherwise, the dichotomous ethnicity and race composites were set to -9 (not ascertained).

Using the six dichotomous race variables and the Hispanic ethnicity variable, the race/ethnicity composite variables for the child (X\_RACETHP\_R, X\_RACETH\_R) 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 a child is not Hispanic, the 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

---

<sup>12</sup> Unlike the ECLS-K, in the ECLS-K:2011 there was not a field to enter "other" race in the race question.

Native, non-Hispanic; More than one Race, non-Hispanic) are coded according to the child's reported race. If the report about whether the child was Hispanic was -7 (refused) or -8 (don't know), or if the child is not Hispanic and parent reported race is missing, X\_RACETHP\_R is coded -9 (not ascertained); if the report about whether the child was Hispanic is also missing from the FMS, or if the child is not Hispanic and race is also missing from the FMS, X\_RACETH\_R is coded -9 (not ascertained). The difference between X\_RACETHP\_R and X\_RACETH\_R is that if race or ethnicity data are missing from the spring 2012 parent interview, X\_RACETH\_R is set to the value for the base-year composite, X12RACETH, which uses both parent data and FMS data, while only parent report data were used for the variable X\_RACETHP\_R. Thus, there are more missing data for X\_RACETHP\_R than for X\_RACETH\_R.

The categories for X\_RACETHP\_R and X\_RACETH\_R 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.

#### **7.5.1.5 Child's Height (X3HEIGHT, X4HEIGHT)**

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 set at 35 inches and an upper limit set at 60 inches.

For the height composites, if the two height measurements obtained within a round (i.e., C3HGT1 and C3HGT2 for fall 2011 and C4HGT1 and C4HGT2 for spring 2012) 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 X3HEIGHT (the child's height in fall 2011), the measurement that was closest to 47.01 inches for boys and 46.63 inches for girls was used as the composite value. This is the 50th percentile height for children who were 6 and a half years old (79.21 months for boys; 78.59 months for girls: the average age at assessment in fall 2011 using the composite X3AGE). If the two spring measurements were 2 inches or more apart, for X4HEIGHT (the child's height in spring 2012), the measurement that was closest to 48.25 inches for boys and 48.15 inches for girls was used as the composite value. This is the 50th percentile height for children who were 7 years old (85.66 months for boys; 85.04 months for girls: the average age at assessment in spring 2012 using the composite X4AGE). The height averages come from the 2000 Centers for Disease Control and Prevention

(CDC) Growth Charts ([www.cdc.gov/growthcharts/html\\_charts/wtage.htm](http://www.cdc.gov/growthcharts/html_charts/wtage.htm)).<sup>13</sup> The two height measurements were 2 or more inches apart in 30 cases for X3HEIGHT and 42 cases for X4HEIGHT.

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 -9 (not ascertained). 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 as the result of a breakoff in the child assessment or the measurements had different missing values (e.g., one was -8 and the other was -9), then the height composite was coded as -9 (not ascertained).

In 118 cases, the child's height in the spring of 2012 (X4HEIGHT) was shorter than in the fall of 2011 (X3HEIGHT). A difference of 1 inch or less (48 children) could be a function of things such as slouching versus standing upright or differences in shoes, hairstyle, thickness of socks, or a combination of these factors. However, 70 children were recorded as being more than 1 inch shorter in the spring than in the fall, and 40 of those were recorded as being more than 2 inches shorter. In addition, 151 children were recorded as having a shorter height in the spring of 2012 than in the spring of 2011. Of these children, 71 were recorded as having a height difference of 1 inch or less; 80 were recorded as having a height difference of more than 1 inch; and 47 were recorded as having a height difference of more than 2 inches. These discrepancies may result from measurement error or recording error. Analysts should use their own judgment in how to use these cases in their analysis.

#### **7.5.1.6 Child's Weight (X3WEIGHT, X4WEIGHT)**

To obtain accurate measurements, each child's weight was measured twice in each data collection round. The weight measurements were entered into the computer program used for the assessment, with a lower limit set at 20 pounds and an upper limit set at 120 pounds. Values outside the range that were documented in assessor comments were included in the data file.

---

<sup>13</sup> For calculating the median height, the composites X3AGE and X4AGE were used to determine children's average age at assessment. The average age at assessment in fall 2011 was 79.21 months for boys and 78.59 months for girls using the composite X3AGE. The closest value on the CDC Growth Chart was 79.5 for boys and 78.5 for girls. The average age at assessment in spring 2012 was 85.66 months for boys and 85.04 months for girls using the composite X4AGE. The closest value on the CDC Growth Chart was 85.5.



For the weight composites, if the two weight measurements obtained within a round (i.e., C4WGT1 and C4WGT2 for spring 2012 and C3WGT1 and C3WGT2 for fall 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 X3WEIGHT the measurement that was closest to 48.84 pounds for boys or 47.55 pounds for girls was used as the composite value. These are the median weights for children who were 6 and a half years old (79.21 months for boys; 78.59 months for girls: the average age at assessment in fall 2011 using the composite X3AGE). If the two measurements were 5 or more pounds apart, for X4WEIGHT the measurement that was closest to 51.53 pounds for boys or 50.91 pounds for girls was used as the composite value. These are the median weights for children who were 7 years old (85.66 months for boys; 85.04 months for girls: the average ages at assessment in spring 2012 using the composite X4AGE). The weight averages come from the 2000 CDC Growth Charts (see [www.cdc.gov/growthcharts/html\\_charts/wtage.htm](http://www.cdc.gov/growthcharts/html_charts/wtage.htm)).<sup>14</sup> The two weight measurements were 5 or more pounds apart in 28 cases for X3WEIGHT and 61 cases for X4WEIGHT.

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 -9 (not ascertained). 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 measurements of weight in the child assessment were coded as -9 because weight data were missing as the result of a breakoff in the child assessment or the measurements had different missing values (e.g., one was -8 and the other was -9), then the weight composite was coded as -9 (not ascertained).

There are 16 children whose round 4 weights are more than 10 pounds lower than their round 3 weights; of these, four changes are in the range of 24.25 pounds to 36 pounds. There are 32 children whose round 4 weights are more than 15 pounds higher than their round 3 weights; of these, five changes are in the range of 25.3 to 50.6. It is possible that some of these changes result from measurement error. Analysts may wish to review such cases and determine how to account for these weight changes in their analysis.

---

<sup>14</sup> For calculating the median weight, the composites X3AGE and X4AGE were used to determine children's average age at assessment. The average age at assessment in fall 2011 was 79.21 months for boys and 78.59 months for girls using the composite X3AGE. The closest value on the CDC Growth Chart was 79.5 for boys and 78.5 for girls. The average age at assessment in spring 2012 was 85.66 months for boys and 85.04 months for girls using the composite X4AGE. The closest value on the CDC Growth Chart was 85.5.

### **7.5.1.7 Child's Body Mass Index (X3BMI, X4BMI)**

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).

### **7.5.1.8 Child's Disability Status (X2DISABL2, X4DISABL2, X4DISABL)**

Two composite variables based on information obtained in the parent interview were created to indicate whether a child had a disability diagnosed by a professional. The variables differ in how missing data were treated during their creation.

Questions in the spring 2012 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 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 (CHQ340, CHQ341).

The composite variable X4DISABL is 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), the question was not coded as only nearsightedness (myopia), farsightedness (hyperopia), color blindness or deficiency, or astigmatism; or in the case of a hearing diagnosis (CHQ246), the question was not coded as only external ear canal ear wax.

Using these criteria to calculate X4DISABL, a child could be coded as having a disability even if data for some of the questions about diagnoses or therapy services (CHQ120, CHQ215, CHQ245, CHQ300, CHQ340, CHQ341) were missing. This is because 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 “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), X4DISABL 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), or if the items that skipped to these items were -7 (refused), -8 (don’t know), or -9 (not ascertained).

A more conservative approach when coding cases that had incomplete data for the diagnoses and services variables was used to derive the variable X4DISABL2. Whereas X4DISABL codes cases with missing data as “no” as long as all the information that was collected indicates the child does not have a diagnosed disability or receive services for a diagnosed disability, X4DISABL2 is coded -9 (not ascertained) when any of the questions about diagnoses or therapy services (CHQ120, CHQ215, CHQ245, CHQ300, CHQ340, CHQ341) are -7 (refused), -8 (don’t know), or -9 (not ascertained), or the items that skipped to these items are -7 (refused), -8 (don’t know), or -9 (not ascertained). For X4DISABL2, if there are no “yes” answers for a disability, but any of the evaluation (CHQ115, CHQ210, CHQ235, CHQ290), diagnoses (CHQ120, CHQ215, CHQ245, CHQ300), or therapy questions (CHQ340, CHQ341) are -7 (refused), -8 (don’t know), or -9 (not ascertained),<sup>15</sup> or if any of the evaluation, diagnosis, or therapy questions were not asked (were -1 for inapplicable) because of missing data for questions that skipped to those questions (and thus it is not known if they should have been asked), X4DISABL2 is coded -9 (not ascertained). In addition, if the parents indicated that a diagnosis had been obtained, but the specific diagnosis was coded as refused, don’t know, or not ascertained, X4DISABL2 is coded as -9 (not ascertained). This approach is more conservative because it does not assume that the response for unanswered questions was “no.” Due to these differences in coding, the number of cases identified as having a diagnosed disability is higher for X4DISABL than it is for X4DISABL2.

---

<sup>15</sup> If CHQ340 or CHQ341 was -9 (not ascertained) because the interview broke off after CHQ330, but all answers in CHQ330 and questions prior to CHQ330 indicated that CHQ340 would not have been applicable, X4DISABL2 and X2DISABL2 were coded 2 (no disability) because those questions would not have been asked for those children.

The disability variable included on the base-year data file, X2DISABL, was derived in the same way as X4DISABL. Their derivation was based on the methods used to create the disability composites for the ECLS-K. The variable X2DISABL2 is an additional composite created for the K-1 file to provide a variable for the kindergarten-year data that is derived in the same way as X4DISABL2. X2DISABL2 is calculated like X4DISABL2, but is based on spring 2011 data.

#### **7.5.1.9 Primary Language in the Child's Home (X4LANGST)**

A composite variable 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. Parents were asked if any language other than English was regularly spoken in their home (P4ANYLNG). 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 (P4PRMLNG) was English, 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 (P4ANYLNG), either solely (P4ENGTOO) or primarily in the home (P4PRMLNG), the composite is coded as 1 (non-English language).

#### **7.5.1.10 Student Grade Level (X3GRDLVL, X4GRDLVL)**

The X3GRDLVL composite indicates the child's fall grade level as reported by the teacher. It is constructed using F3CLASS2<sup>16</sup> (child's class, e.g., all-day kindergarten or first grade) and T3GRADE (child's grade level from the fall TQC). The values include 1 for kindergarten (either full or part day), 2 for first grade, 3 for second grade, and 4 when the child is in an ungraded setting. In all other cases the value is set to -9 for not ascertained.

The X4GRDLVL composite indicates the child's spring grade level as reported by the teacher. It is constructed using F4CLASS2 (child's class, e.g., all-day kindergarten or first grade),

---

<sup>16</sup> Note that grade level (F3CLASS2, F4CLASS2) was obtained for homeschooled children. Parents were asked for the child's grade level during the child assessment in the home.

T4GRADE (child's grade level from the spring TQC1), and T4KGRADE (child's kindergarten program type from the spring TQCK). The valid reported values include 1 for kindergarten, 2 for first grade, 3 for second grade, 4 for third grade, and 5 when the child is in an ungraded setting. In all other cases the value is set to -9 for not ascertained.

#### **7.5.1.11 Student Kindergarten Class Type and Teacher Class Data Reporting (X4CLASS2)**

Although most children in the study were in first grade in the spring of 2012, some were still in kindergarten. X4CLASS2 was created as a two-digit variable in order to 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 for those children who were still in kindergarten. Children who were in first grade or higher are included in categories indicating they were not in kindergarten.

Information about kindergarten class type and grade level were taken from the following places: (1) the type(s) of class(es) teachers reported that they taught in the spring teacher-classroom-level questionnaire (TQAK), (2) the grade level in which the child was enrolled (X4GRDLVL) based on the teacher child-level questionnaires for teachers of kindergarten or first grade in the spring of 2012 (TQCK or TQC1) and the FMS to identify whether the child's grade level was kindergarten or not kindergarten, and (3) the kindergarten class type (full day or part day) from the fall 2011 (TQC) or spring 2012 (TQCK) teacher child-level questionnaires if the child's grade level was kindergarten.

The structure of the spring TQAK 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. Because of 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 TQAK the teacher reported teaching a full-day kindergarten class but reported data in the half-day 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 TQAK the teacher reported

teaching only a half-day p.m. kindergarten class but reported in TQCK that the child was in a half-day 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 TQAK the teacher reported teaching both half-day a.m. and half-day p.m. kindergarten classes and reported in TQCK that the child was in a half-day a.m. kindergarten class). X4CLASS2 is an indicator of agreement in child-level information (in X4GRDLVL, spring TQCK, and fall TQC), and class type information in TQAK and tells users which set of variables (half-day a.m., half-day p.m., or full-day) describe the particular kindergarten classroom in which the child was enrolled.

- The first digit of X4CLASS2 indicates the specific type of kindergarten class in which the child was enrolled (full-day, part-day, unknown, or child not identified as in kindergarten). It was derived from a combination of X4GRDLVL (from the spring TQCK, spring TQC1, and the FMS) and responses on the teacher-reported child-level questionnaire in fall 2011 or spring 2012 (spring TQCK, fall TQC; variables T4KGRADE and T3GRADE). If data on program type from the spring TQCK or fall TQC were missing, then data from the grade-level composite (X4GRDLVL) were used to set the grade level of kindergarten or other. There are four values for the first digit of X4CLASS: 1 (full-day class), 2 (part-day class), 3 (unknown kindergarten class), and 9 (child not identified as in kindergarten).
- The second digit of X4CLASS2 indicates whether the teacher provided data on a full-day class (A4KFULDAY), a half-day a.m. class (A4KHALFAM), a half-day p.m. class (A4KHALFPM), or both full-day and half-day classes (A4KBOTHCL) in the teacher-level questionnaire (spring TQAK). There are five values for the second digit of X4CLASS, 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 spring TQA data are available: 0 (missing teacher data), 1 (full-day teacher data), 2 (half-day a.m. teacher data), 3 (half-day p.m. teacher data), and 9 (teacher data reported in multiple columns).

Users should use the first digit of the X4CLASS2 variable to determine the type of classroom in which a child was enrolled. 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 (half-day a.m., half-day p.m., or AD [all-day]) apply to each child. In instances of inconsistent teacher reporting, the first and second digits may not agree with one another. However, the second digit was assigned after a careful review of the data, so the associated variables should be used for each child. For example, if the child was in a full-day kindergarten class according to the spring TQCK 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

X4CLASS2 is provided below in exhibit 7-4.

Exhibit 7-4. Categories for X4CLASS2

Category label	Category value	Child's kindergarten class type	Link to teacher class-specific <sup>1</sup> data
CHILD FULL-DAY CLASS, MISSING TEACHER DATA	10	Full-day	None
CHILD FULL-DAY CLASS, ALL-DAY TEACHER DATA	11	Full-day	AD (A4KD)
CHILD FULL-DAY CLASS, MORNING TEACHER DATA	12	Full-day	AM (A4KA)
CHILD FULL-DAY CLASS, AFTERNOON TEACHER DATA	13	Full-day	PM (A4KP)
CHILD FULL-DAY CLASS, TEACHER DATA IN MULTIPLE COLUMNS	19	Full-day	Multiple (examine data)
CHILD PART-DAY KINDERGARTEN, MISSING TEACHER DATA	20	Part-day	None
CHILD PART-DAY KINDERGARTEN, FULL-DAY TEACHER DATA	21	Part-day	AD (A4KD)
CHILD PART-DAY KINDERGARTEN, MORNING TEACHER DATA	22	Part-day	AM (A4KA)
CHILD PART-DAY KINDERGARTEN, AFTERNOON TEACHER DATA	23	Part-day	PM (A4KP)
CHILD PART-DAY KINDERGARTEN, TEACHER DATA IN MULTIPLE COLUMNS	29	Part-day	Multiple (examine data)
CHILD UNKNOWN KINDERGARTEN, MISSING TEACHER DATA	30	Unknown	None

See notes at end of exhibit.

Exhibit 7-4. Categories for X4CLASS2—Continued

Category label	Category value	Child's kindergarten class type	Link to teacher class-specific <sup>1</sup> data
CHILD UNKNOWN KINDERGARTEN, FULL-DAY TEACHER DATA	31	Unknown	AD (A4KD)
CHILD UNKNOWN KINDERGARTEN, MORNING TEACHER DATA	32	Unknown	AM (A4KA)
CHILD UNKNOWN KINDERGARTEN, AFTERNOON TEACHER DATA	33	Unknown	PM (A4KP)
CHILD UNKNOWN KINDERGARTEN, TEACHER DATA IN MULTIPLE COLUMNS	39	Unknown	Multiple (examine data)
CHILD NOT IDENTIFIED AS IN KINDERGARTEN, MISSING TEACHER DATA	90	†	None
CHILD NOT IDENTIFIED AS IN KINDERGARTEN, FULL-DAY TEACHER DATA	91	†	AD (A4KD)
CHILD NOT IDENTIFIED AS IN KINDERGARTEN, MORNING TEACHER DATA	92	†	AM (A4KA)
CHILD NOT IDENTIFIED AS IN KINDERGARTEN, AFTERNOON TEACHER DATA	93	†	PM (A4KP)
CHILD NOT IDENTIFIED AS IN KINDERGARTEN, TEACHER DATA IN MULTIPLE COLUMNS	99	†	Multiple (examine data)

† Not applicable.

<sup>1</sup> Class-specific data refer to teacher-level questionnaire variables that begin with A4KD (spring 2012, all-day class), A4KA (spring 2012, a.m. class), or A4KP (spring 2012, 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), spring 2012.



The classroom data provided in the spring TQAK matched the type of classroom reported in the spring TQCK or fall TQC for the majority of children, but not all children. For example, a value of 11 on X4CLASS2 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 21 on X4CLASS2 means that the child was reported to be in a part-day class, but the teacher provided data for a full-day class and did not also provide data for a morning or afternoon part-day class. A value of 19 on X4CLASS2 means that the child was reported to be in a full-day class, and the teacher provided data on multiple types of classes (e.g., a teacher may have provided data on a half-day morning class and a half-day afternoon class, or a full-day class and a half-day morning class). For cases with a 9 as the second digit of X4CLASS2, the data user should examine the teacher-provided data to determine which class-specific data they prefer 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 a user would want to use.

#### **7.5.1.12 Child Linked to a Special Education Teacher (X4SPECS)**

The composite variable X4SPECS indicates whether or not children were linked to a special education teacher and special education questionnaires were requested from teachers in the spring of 2012, 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. Study team leaders asked school staff what accommodations were required for the child to be assessed. During the discussion about accommodations, team leaders were also supposed to record whether the child had an Individualized Education Program (IEP) on file with the school but did not require any accommodations for the study assessments. The link to a special education teacher was established automatically when this information was entered in the FMS by study team leaders. Information about receipt of special education services was first obtained in the fall of 2011 and then updated, if necessary, in the spring of 2012. If a child had an IEP, 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.

There are a few cases of a mismatch between X4SPECS and special education teacher reports about an IEP. In about 20 cases, there were FMS data indicating the child had an IEP on record at the school (and thus a special education teacher questionnaire was requested from the teacher and

X4SPECS = 1), but the special education teacher indicated in the child-level questionnaire that the child did not have an IEP (E4RECSPE=2).

### **7.5.2 Family and Household Composite Variables**

Many composite variables are created to provide information about the sampled children's family and household characteristics. It must be noted that household composition composite variables consider only those people who were household members at the time of the parent interview. If information on household composition was collected in the spring 2011 or fall 2010 parent interview, the parent respondent was asked to indicate whether the people living in the household in the most recent interview in which information about household composition was collected were still in the household at the time of the spring 2012 parent interview, as well as whether there were any new members of the household. Household members were accounted for in the derivation of the spring 2012 composite variables if they were still living in the household or had joined the household since the time of the last interview, as indicated in the variables P4CUR\_1–P4CUR\_25. Information about household composition was not collected in the fall 2011 parent interview.

During the parent interview, data on age, sex, and relationship were collected for all new household members. Data about a change in relationship to the child (since the previous interview with relationship data) were collected in spring 2012 for those with specific relationships described in the parent interview specifications. Data about race and ethnicity were collected for specific household members who were new to the household and for specific previous household members with missing race or ethnicity data. Other data were also collected about parents in spring 2012 (e.g., country of origin, education level) depending on the characteristic and whether previous data had been collected for that parent. References to “parents” in this chapter include both parents and guardians.

The composite variables for parents (e.g., parent age, parent education) are for the parents who were members of the household at the time of the spring 2012 interview. The identities of household parent figures can change over time, meaning that data in a composite may not actually pertain to the parent figure in the household in an earlier round. For example, parent education collected in the spring 2012 parent interview would pertain to a father figure who was in the home during that round but not necessarily to a father figure who was in the household during the kindergarten year. Users should look at the X4IDP1 and X4IDP2 variables described in section 7.5.2.4 to determine if the household roster

numbers associated with parent 1 and parent 2 in the spring of 2012 match the household roster numbers for parent 1 and parent 2 from an earlier round (e.g., X1IDP1 or X1IDP2) in order to determine if the parent figures changed.

#### **7.5.2.1 Household Counts (X4HTOTAL, X4NUMSIB, X4LESS18, X4OVER18)**

The composite variable X4HTOTAL provides a count of the total number of household members in the spring of 2012. For households for which household roster information had been collected in a prior round, this count is the number of household members who were previously rostered and reported to still be in the household plus any new persons added after the last interview in which roster information was collected. For households that did not participate in the fall 2010 or spring 2011 parent interview and, therefore, had not been previously rostered, X4HTOTAL is a count of the total number of persons identified by the respondent as household members in the spring 2012 parent interview.

Two composite variables take the ages of the household members into account to indicate the total numbers of (1) adults and (2) children in the household in the spring of 2012. Information about household members' ages was collected in the household matrix, or roster, section of the parent interview. X4LESS18 indicates the total number of people in the household under age 18, including the study child, siblings, and other children, and X4OVER18 indicates the total number of people in the household age 18 or older. All household members who were 18 years old or older, as well as anyone identified as a parent or grandparent of the focal child, are counted in the total for X4OVER18. Parents or grandparents are counted as adults in X4OVER18 even when their age information is missing. Households with members with missing age information who are not identified as a parent or grandparent are coded as -9 (not ascertained) on X4OVER18 and X4LESS18.<sup>17</sup> X4LESS18 is created by subtracting X4OVER18 from X4HTOTAL.

The composite X4NUMSIB indicates the total number of siblings (biological, step-, adoptive, or foster) in the household. Siblings were identified by questions in the FSQ section of the parent interview that asked about the relationship of each household member to the study child.

---

<sup>17</sup> As noted, household members with missing ages were not included in the count for X4LESS18 and were only included in the count for X4OVER18 if they were a parent or grandparent. However, during the administration of section FDQ (Food Security) in the spring parent interview, household members with missing ages were assumed to be adults.

X4NUMSIB does not count children of the parent's partner (identified by the code 5 in the variables associated with question FSQ180) as siblings.

### 7.5.2.2 Household Rosters

The ECLS-K:2011 data file includes rosters of the household members as collected in the parent interviews. The roster information appears as part of the block of Family Structure Questions (FSQ) for each round in which the FSQ section is fielded. Variable names begin with P1 for round 1 (fall kindergarten), P2 for round 2 (spring kindergarten), and P4 for round 4 (spring 2012, when most children were in first grade). No FSQ section was included in the brief round 3 parent interview.

For each household member in each round, roster variables include the following, where \* is the round number (1, 2, or 4) and # is the household roster number (1 through 25):

- P\*PER\_#, person type, whether the person is the focal child, respondent, or spouse/partner of the respondent;
- P\*AGE\_#, the person's age;
- P\*SEX\_#, the person's sex;
- P\*REL\_#, how the person is related to the focal child;
- P\*MOM\_#, if the person is the child's mother, the type of mother;
- P\*DAD\_#, if the person is the child's father, the type of father;
- P\*SIS\_#, if the person is the child's sister, the type of sister;
- P\*BRO\_#, if the person is the child's brother, the type of brother;
- P\*UNR\_#, if the person is not a relative, the type of relationship;
- P\*HSP\_#, whether the child or parent/guardian is of Hispanic or Latino origin;
- P\*AIA\_#, whether the child or parent/guardian is American Indian or Alaska Native;
- P\*ASN\_#, whether the child or parent/guardian is Asian;
- P\*BLK\_#, whether the child or parent/guardian is Black or African American;

- P\*HPI\_#, whether the child or parent/guardian is Native Hawaiian or other Pacific Islander; and
- P\*WHT\_#, whether the child or parent/guardian is White.

For rounds 2 and 4, there are two additional variables:

- P\*CUR\_#, whether the person was currently a household member at the time of the interview; and
- P\*REASL#, if the person left the household, the reason for doing so.

For round 2, there are two additional variables<sup>18</sup>:

- P2JOI\_#, the round in which the person was first enumerated as a household member; and
- P2RDP\_#, the round in which the person left the household.

Once a person is assigned a household roster number, he or she retains that number permanently. Thus, if there are four persons in the household and person 3 leaves the household, person 4 remains in position 4 in the roster for all rounds. Similarly, if the last person on the roster leaves the household and a new person subsequently joins the household, that new household member is assigned to the position below that of the person who left (for example, if person 6 is the last person in the roster and leaves the household, a new person joining the household would be assigned to position 7).

If there is no parent interview completed in a given round, then the items for that round are assigned a value of system missing. Beginning in round 4, if a person has left the household (e.g., P4CUR\_# = 2, not a current household member), the roster variables for that position are assigned a value of -1 for that round and subsequent rounds in which a parent interview is completed.

In rare cases, there are roster positions for which all values are system missing or -1 across all rounds but P4CUR\_# = 2 (not a current household member). This may occur in the following circumstances:

---

<sup>18</sup> In the base year, round 2, variables identifying in which round a person was first enumerated as a household member and in which round a person was identified as having left the household were set in the CAPI parent interview and included in the base-year data file. In subsequent years, it was determined that analysts can use the P\*CUR\_# variables (person is currently a household member), where \* is the round number and # is the person number, to examine changes in household membership over time.

- A new household member was the respondent for round 3, when there was no roster confirmation and completion in the parent interview, but had left the household by the time the round 4 parent interview was completed.<sup>19</sup>
- An interviewer or CAPI program error was corrected in data editing.
- A partial roster was collected in an earlier round, but not included in a data file because it was not completed (i.e., a breakoff not meeting the rule for data delivery), and a person included in the partial roster was no longer in the household when the roster was completed in a later interview.

Specific cases for which these circumstances occurred are described in the Appendix: Data Anomalies and Errata.

**Determining household membership in a given round.** In round 1, respondents were not asked if persons were currently household members, because this was the first household enumeration for the study and all enumerated persons were household members at that time. For rounds 2 and 4, analysts can determine the current household membership at the time of the parent interview for the round by examining the variables P2CUR\_# and P4CUR\_#, respectively. Analysts should not look for the first “empty” position in the roster series to determine the last person with roster data in the household since, as noted above, all persons retain their household positions permanently; i.e., if person 3 leaves the household, then person 4 still remains in position 4.

### 7.5.2.3 Food Security Status

The food security status of the children’s household was determined by responses to the 18 food security questions (P4WORREFD through P4NOMONY) asked in section FDQ of the spring 2012 parent interview.<sup>20</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

---

<sup>19</sup> It should be noted that because there was not a household roster in the fall 2011 parent interview, there are potentially other household members who were present in fall 2011, but left by the spring 2012 parent interview. There would be no record of these household members in the study.

<sup>20</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 (FDQ160, FDQ170, and FDQ180) also had slight wording changes compared to how they were asked in the ECLS-K. Composites that involve items with wording changes relative to the ECLS-K have a “2” at the end of them.

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 with other indicators of food adequacy. Composites were created that indicate the 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 (Nord and Hopwood 2007). 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 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:2011 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.

### **7.5.2.3.1 Food Security Status: Raw Scores (X4FSRAW2, X4FSADRA2, and X4FSCHRA)**

The household food security raw score, X4FSRAW2, is a count of affirmative responses to the 18 food security items, and 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 7.5.2.3.3. The raw score is ordinal, not interval, so it should not be used when 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 that have some 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). X4FSRAW2 ranges from 0 to 18. X4FSADRA2 is the adult food security raw score, which is a simple count of the number of household- and adult-referenced food security items affirmed by the parent, and ranges from 0 to 10. X4FSCHRA is the children's 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.

### **7.5.2.3.2 Food Security Status: Continuous Measures (X4FSSCAL2, X4FSADSC2, and X4FSCHSC)**

X4FSSCAL2 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 (X4FSRAW2). 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. For such cases, X4FSSCAL2 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 the food security scale score is a dependent variable, a selection model such as Tobit may be appropriate. If the food security scale score is a predictor variable, a value of 0 may be assigned to cases with a raw score of 0 and a dummy variable added to identify households with a raw score of 0.



X4FSADSC2 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, 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 *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 X4FSSCAL2 above).

X4FSCHSC 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* (Nord and Bickel 2002). 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 X4FSSCAL2 above).

#### **7.5.2.3.3 Food Security Status: Categorical Measures (X4FSSTAT2, X4FSADST2, and X4FSCHST)**

X4FSSTAT2 is a categorical measure of household food security status based on the household's food security raw score, X4FSRAW2. X4FSSTAT2 assigns households into one of three ordered categories: food secure (raw scores 0-2), having low food security (raw scores 3-7), and having very low food security (raw scores of 8 or more). The two categories "low food security" and "very low food security" together make up the more general category, food insecurity. X4FSSTAT2 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.

X4FSADST2 is a categorical measure of adults' food security status based on the household's adult food security raw score, X4FSADRA2. X4FSADST2 identifies households as food secure (raw scores 0-2), having low food security among adults (raw scores 3-5), or having very low food security among adults (raw scores of 6 or more). This variable is appropriate for comparing percentages

of households with food insecurity among adults and very low food security among adults across subpopulations.

X4FSCHST is a categorical measure of children’s food security status based on the children’s food security raw score, X4FSCHRA. X4FSCHST identifies households as having only food secure children (raw scores 0-1), having low food security among children (raw scores 2-4), or having very low food security among children (raw scores 5-8). 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”). X4FSCHST 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.

#### **7.5.2.4 Parent Identifiers and Type in the Household (X4IDP1, X4IDP2, X4HPAR1, X4HPAR2, X4HPARNT)**

X4IDP1 and X4IDP2 indicate the positions in the household roster of the sampled child’s residential parent/parent figure(s) in spring 2012.<sup>21</sup> The construction of parent identifiers and the household composition variables from the parent interview data was a multistep 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 X4IDP1 and X4IDP2 for the spring.

1. If there was only one mother (of any type, including unknown type) and only one father (of any type, including unknown type) in the household, the mother was identified as parent 1 (X4IDP1) and the father was identified as parent 2 (X4IDP2).
2. If there was only one mother (of any type, including unknown type) in the household and no other parent figure (of any type), the mother was identified as parent 1 and parent 2 is coded -1 (not applicable). If there was a mother and she had a male spouse/partner in the household who was not identified as a father (of any type, including unknown type), the spouse/partner was identified as parent 2.

---

<sup>21</sup> In the ECLS-K, the parent identifiers were P4MOMID and P4DADID. These have been combined into parent 1 and parent 2 variables in the ECLS-K:2011.

3. If there was only one father (of any type, including unknown type) in the household and no other parent figure (of any type), the father was identified as parent 1 and parent 2 is coded -1 (not applicable). If there was a father and he had a female spouse/partner in the household who was not identified as a mother (of any type), the spouse/partner was identified as parent 1 and the father was identified as parent 2.
4. If there were two mothers (or a mother and female spouse/partner) 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>22</sup> The other mother was identified as parent 2. If there were two mothers of the same type (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 household roster number was identified as parent 1 and the other mother was identified as parent 2.
5. If there were two fathers in the household (or a father and male spouse/partner), 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 household roster number was identified as parent 1 and the other father was identified as parent 2.
6. If there was no one in the household identified as a mother or father, then a female respondent or the female spouse or partner of a male respondent was identified as parent 1. If the female parent figure had a male spouse or partner, the spouse/partner was identified as parent 2. If the respondent was male and had a female spouse or partner, she was designated as parent 1 and he was designated as parent 2. For example, if a child lived with his grandmother (the respondent) and grandfather, and neither his mother nor father lived in the household, then the grandmother was identified as parent 1 and the grandfather was identified as parent 2. If the grandfather lived in the household, but no grandmother or parents lived there, the grandfather respondent would be parent 1 and parent 2 would be coded -1. Demographic information such as age, race, and education was collected for these "parent figures."

Once parents/parent figures were identified, X4HPAR1 and X4HPAR2 were created to identify the specific relationship of parent 1 and parent 2 to the study child.<sup>23</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 X4IDP1 and X4IDP2 were not defined as parents (meaning biological, step-, adoptive, or foster) for the construction of X4HPAR1 and X4HPAR2. For example, if there are a grandmother and grandfather and there are no parents listed in the household, X4HPAR1 and X4HPAR2 would be coded as category 15 (no resident parent).

---

<sup>22</sup> There were new categories in the ECLS-K:2011 parent interview for "Other female parent or guardian" in FSQ140 and "Other male parent or guardian" in FSQ150 that were not included in the ECLS-K.

<sup>23</sup> These variables are a combination of P4HMOM and P4HDAD from the ECLS-K.

X4HPARNT indicates the type(s) of parents living in the household with the study child. The values for the X4HPARNT composite 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 guardian(s).

When study children are living with parent figures (e.g., grandmother and grandfather), rather than biological, adoptive, step-, or foster parents, X4HPARNT is coded 4.

In addition to two questions asking where parent 1 and parent 2 were born (P4PARCT1, P4PARCT2) and when, if applicable, they moved to the United States (P4PAREM1, P4PAREM2), there are three sections in the parent interview that asked questions about the residential parent(s) or parent figure(s):

- PLQ, Primary Language(s) Spoken;
- PEQ, Parent Education and Human Capital; and
- EMQ, Parent Employment.

Each of these sections was completed during the parent interview for up to two parents or parent figures. To indicate which household member or members were the subject of each section, “pointer” variables that hold the household roster number of the person were used. The pointer variables P4EMPP1, P4PEQHH1, and P4PLQHH1 are always equal to X4IDP1, where applicable, and the pointer variables P4EMPP2, P4PEQHH2, and P4PLQHH2 are always equal to X4IDP2, where applicable. That is, 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 parent pointers are based on P4ANYLNG and the parent identifiers X4IDP1 and X4IDP2. If P4ANYLNG = 2, -7, or -8 (no, refused, don’t know), section PLQ is not applicable and the pointers are set to -1 (not applicable). Thus, if P4ANYLNG = 2, -7, or -8 (no, refused, don’t know), P4PLQHH1 could be -1, even though there is a person for X4IDP1. If P4ANYLNG = -9 (not ascertained), the PLQ parent pointers are set to -9 (not ascertained). If P4ANYLNG = 1, then P4PLQHH1 will have a value that matches X4IDP1, and P4PLQHH2 will have a value that matches X4IDP2.

To illustrate how the pointer variables work, suppose there is a household with both a mother and a father who were listed as the third and fourth individuals in the household roster. According to the rules outlined above, household member #3, the mother, becomes parent 1 and X4IDP1 equals 3. All applicable pointer variables for parent 1 take on the value 3. Similarly, household member #4, the father, becomes parent 2 and X4IDP2 equals 4. All applicable pointer variables for parent 2 take on the value 4. Table 7-1 identifies the pointer variables included in the data file.

The pointer variables are necessary to determine which parent should be assigned the answers to items about language use, education and human capital, and employment. Returning to the above example, the answers to the education questions (e.g., P4HIG\_1\_I, P4ENR\_1, P4FPT\_1, etc.) for household member #3, the mother, are stored in variables that end with the suffix “\_1” to correspond with the fact that the mother’s household roster number was assigned to X4IDP1. That is, the suffix “\_1” indicates that the data are for parent 1. The answers to the education questions (e.g., P4HIG\_2\_I, P4ENR\_2, P4FPT\_2, etc.) for household member #4, the father, are stored in variables that end with the suffix “\_2” to correspond with the fact that the father’s household roster number was assigned to X4IDP2. That is, the suffix “\_2” indicates that the data are for parent 2.

Table 7-1. Pointers to parent figure questions: School year 2011–12

Person pointer		Interview item	
P4PLQHH1	P4 PLQ041-090 HH PERSON POINTER 1	P4RES_1	P4 PLQ083 PERSON 1 LANGUAGE TO CHILD
		P4CHL_1	P4 PLQ090 CHILD'S LANGUAGE TO PERSON 1
P4PLQHH2	P4 PLQ041-090 HH PERSON POINTER 2	P4RES_2	P4 PLQ083 PERSON 2 LANGUAGE TO CHILD
		P4CHL_2	P4 PLQ090 CHILD'S LANGUAGE TO PERSON 2
P4PEQHH1	P4 PEQ020–080 PERSON 1 ROSTER NUMBER	P4HIG_1	P4 PEQ020 PERS 1 HIGHEST EDUCATION LEVEL
		IFP4HIG_1	P4 IMPUTATION FLAG FOR P4HIG_1_I
		P4HIS_1	P4 PEQ021 IF PERS 1 HIGH SCHOOL DIPLOMA/GED
		IFP4HIS_1	P4 IMPUTATION FLAG FOR P4HIS_1_I
		P4ENR_1	P4 PEQ030 PERS 1 ENROLLED IN COURSES
		P4FPT_1	P4 PEQ040 PERS 1 COURSE FULL/PART TIME
		P4TRN_1	P4 PEQ050 PERSON 1 GETS JOB TRAINING
		P4WKL_1	P4 PEQ060 PERS 1 HRS/WK IN TRAINING
		P4HSGEF_1	P4 PEQ062 PERS 1 TRAIN - HIGH SCHOOL/GED
		P4VOCTECH_1	P4 PEQ062 PERS 1 TRAIN - VOC/TECH DEG
		P4ASSOC_1	P4 PEQ062 PERS 1 TRAIN - ASSOCIATES DEG
		P4BACH_1	P4 PEQ062 PERS 1 TRAIN - BACHELORS DEG
		P4MSTR_1	P4 PEQ062 PERS 1 TRAIN - MASTERS DEG
		P4DOCTR_1	P4 PEQ062 PERS 1 TRAIN - DOCTORATE DEG
		P4PROF_1	P4 PEQ062 PERS 1 TRAIN - PROFESSIONAL DG
P4OJTCRNT_1	P4 PEQ062 PERS 1 TRAIN - ON-JOB TRAIN		
P4JOBTRN_1	P4 PEQ062 PERS 1 TRAIN - TRAIN NEW JOB		
P4PEQHH2	P4 PEQ020–080 PERSON 2 ROSTER NUMBER	P4HIG_2	P4 PEQ020 PERS 2 HIGHEST EDUCATION LEVEL
		IFP4HIG_2	P4 IMPUTATION FLAG FOR P4HIG_2_I
		P4HIS_2	P4 PEQ021 IF PERS 2 HIGH SCHOOL DIPLOMA/GED
		IFP4HIS_2	P4 IMPUTATION FLAG FOR P4HIS_2_I
		P4ENR_2	P4 PEQ030 PERS 2 ENROLLED IN COURSES
		P4FPT_2	P4 PEQ040 PERS 2 COURSE FULL/PART TIME
		P4TRN_2	P4 PEQ050 PERSON 2 GETS JOB TRAINING
		P4WKL_2	P4 PEQ060 PERS 2 HRS/WK IN TRAINING
		P4HSGEF_2	P4 PEQ062 PERS 2 TRAIN - HIGH SCHOOL/GED
		P4VOCTECH_2	P4 PEQ062 PERS 2 TRAIN - VOC/TECH DEG
		P4ASSOC_2	P4 PEQ062 PERS 2 TRAIN - ASSOCIATES DEG
		P4BACH_2	P4 PEQ062 PERS 2 TRAIN - BACHELORS DEG
		P4MSTR_2	P4 PEQ062 PERS 2 TRAIN - MASTERS DEG
		P4DOCTR_2	P4 PEQ062 PERS 2 TRAIN - DOCTORATE DEG
		P4PROF_2	P4 PEQ062 PERS 2 TRAIN - PROFESSIONAL DG
P4OJTCRNT_2	P4 PEQ062 PERS 2 TRAIN - ON-JOB TRAIN		
P4JOBTRN_2	P4 PEQ062 PERS 2 TRAIN - TRAIN NEW JOB		
P4EMPP1	P4 EMQ020-100 PERSON 1 ROSTER NUMBER	P4EMPCHG_1_I	P4 EMQ010 EMPLOYMENT CHANGED
		IFP4EMPCHG_1	P4 IMPUTATION FLAG FOR P4EMPCHG_1_I
		P4PAY_1_I	P4 EMQ020 PERS 1 HAD PAID JOB LAST WEEK
		IFP4PAY_1	P4 IMPUTATION FLAG FOR P4PAY_1_I
		P4VAC_1_1	P4 EMQ030 IF PERS 1 ON LEAVE PAST WEEK
IFP4VAC_1	P4 IMPUTATION FLAG FOR P4VAC_1_1		

See note at end of table.

Table 7-1. Pointers to parent figure questions: School year 2011–12—Continued

Person pointer		Interview item	
P4EMPP1— Continued	P4 EMQ020-100 PERSON 1 ROSTER NUMBER—Continued	P4JOB_1	P4 EMQ040 PERSON 1 NUMBER OF CUR JOBS
		P4HRS_1_1	P4 EMQ050 PERSON 1 HOURS/WK AT ALL JOBS
		IFP4HRS_1	P4 IMPUTATION FLAG FOR P4HRS_1
		P4LOK_1_1	P4 EMQ060 PERS 1 SOUGHT JOB LAST 4 WEEKS
		IFP4LOK_1	P4 IMPUTATION FLAG FOR P4LOK_1
		P4DO1_1_1	P4 EMQ070 PERS 1 CHKD W/PUB EMPL AGENCY
		IFP4DO1_1	P4 IMPUTATION FLAG FOR P4DO1_1
		P4DO2_1_1	P4 EMQ070 PERS 1 CHKD W/PRIV EMP AGENCY
		IFP4DO2_1	P4 IMPUTATION FLAG FOR P4DO2_1
		P4DO3_1_1	P4 EMQ070 PERS 1 CHKD W/EMPLOYR DIRECTLY
		IFP4DO3_1	P4 IMPUTATION FLAG FOR P4DO3_1
		P4DO4_1_1	P4 EMQ070 PERS 1 CHKD W/FRIENDS AND REL
		IFP4DO4_1	P4 IMPUTATION FLAG FOR P4DO4_1
		P4DO5_1_1	P4 EMQ070 PERS 1 PLACED OR ANSWERED ADS
		IFP4DO5_1	P4 IMPUTATION FLAG FOR P4DO5_1
		P4DO6_1	P4 EMQ070 PERS 1 RD WANT ADS/INTRNT SRCH
		P4DO7_1	P4 EMQ070OS PERS 1 DID SOMETHING ELSE
		P4DOW_1	P4 EMQ080 WHAT PERSON 1 DOING LAST WEEK
		P4TAK_1	P4 EMQ100 PERS 1 COULD TAKE JOB LAST WK
P4EMPP2	P4 EMQ020-100 PERSON 2 ROSTER NUMBER	P4EMPCHG_2_1	P4 EMQ010 EMPLOYMENT CHANGED
		IFP4EMPCHG_2	P4 IMPUTATION FLAG FOR P4EMPCHG_2
		P4PAY_2_1	P4 EMQ020 PERS 2 HAD PAID JOB LAST WEEK
		IFP4PAY_2	P4 IMPUTATION FLAG FOR P4PAY_2
		P4VAC_2_1	P4 EMQ030 IF PERS 2 ON LEAVE PAST WEEK
		IFP4VAC_2	P4 IMPUTATION FLAG FOR P4VAC_2
		P4JOB_2	P4 EMQ040 PERSON 2 NUMBER OF CUR JOBS
		P4HRS_2_1	P4 EMQ050 PERSON 2 HOURS/WK AT ALL JOBS
		IFP4HRS_2	P4 IMPUTATION FLAG FOR P4HRS_2
		P4LOK_2_1	P4 EMQ060 PERS 2 SOUGHT JOB LAST 4 WEEKS
		IFP4LOK_2	P4 IMPUTATION FLAG FOR P4LOK_2
		P4DO1_2_1	P4 EMQ070 PERS 2 CHKD W/PUB EMPL AGENCY
		IFP4DO1_2	P4 IMPUTATION FLAG FOR P4DO2_2
		P4DO2_2_1	P4 EMQ070 PERS 2 CHKD W/PRIV EMP AGENCY
		IFP4DO2_2	P4 IMPUTATION FLAG FOR P4DO2_2
		P4DO3_2_1	P4 EMQ070 PERS 2 CHKD W/EMPLOYR DIRECTLY
		IFP4DO3_2	P4 IMPUTATION FLAG FOR P4DO3_2
		P4DO4_2_1	P4 EMQ070 PERS 2 CHKD W/FRIENDS AND REL
		IFP4DO4_2	P4 IMPUTATION FLAG FOR P4DO4_2
		P4DO5_2_1	P4 EMQ070 PERS 2 PLACED OR ANSWERED ADS
		IFP4DO5_2	P4 IMPUTATION FLAG FOR P4DO5_2
		P4DO6_2	P4 EMQ070 PERS 2 RD WANT ADS/INTRNT SRCH
		P4DO7_2	P4 EMQ070OS PERS 2 DID SOMETHING ELSE
		P4DOW_2	P4 EMQ080 WHAT PERSON 2 DOING LAST WEEK
P4TAK_2	P4 EMQ100 PERS 2 COULD TAKE JOB LAST WK		

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2011 and spring 2012.

### **7.5.2.5 Parent Demographic Variables (X4PAR1AGE, X4PAR2AGE, X4PAR1RAC, X4PAR2RAC)**

X4PAR1AGE is a composite variable for the age of parent 1 from the household roster and X4PAR2AGE is the composite variable for the age of parent 2 from the household roster.<sup>24</sup> The ages of all household members (other than the child) who had their ages collected in fall 2010 or spring 2011 were incremented by one year in the spring 2012 parent interview program. Other household members who were not in the study in fall 2010 or spring 2011 had their ages collected in spring 2012. For information about how the first and second parents were selected for these and other parent variables, see section 7.5.2.4 above.

The composite variables for race/ethnicity for the parent/guardians were derived in the same way as those for the child, except that there are no variables that supplement parent-reported race/ethnicity with FMS data as was done for children. All data on parent race/ethnicity come from the parent interview. Spring 2012 race/ethnicity information for parents is provided in the data file in categorical race/ethnicity composites (X4PAR1RAC for parent 1 in the household and X4PAR2RAC for parent 2).<sup>25</sup> Race and ethnicity information was collected only once for each parent/guardian. If race and ethnicity information was collected in the fall of 2010 or spring of 2011, it was not collected again in the spring of 2012. The questions about race and ethnicity were only asked in the spring 2012 parent interview to collect this information for new parents/guardians in the household or when this information was missing for parents/guardians who lived in the household at the time of the spring 2011 interview.

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>26</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, that person's race/ethnicity was classified as "Hispanic, no race specified." The remaining race/ethnicity categories (White, non-Hispanic; Black or

---

<sup>24</sup> These variables are a combination of P4HDAGE and P4HMAGE in the ECLS-K.

<sup>25</sup> These variables are a combination of P4HDRACE and P4HMRACE in the ECLS-K.

<sup>26</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.



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 reported race when the person was not Hispanic or Latino. If the answer to the question about being Hispanic or Latino was -7 or -8 (refused or don't know, respectively), or if the person was not Hispanic and the answer to the question about race was -7 or -8 (refused or don't know, respectively), race/ethnicity was coded -9 (not ascertained).

Parent race/ethnicity was obtained for all parents/guardians and spouses of respondent parents/guardians but may or may not have been collected for a parent's boyfriend or girlfriend. For example, in a household with a birth mother and stepfather, the race/ethnicity of both parents was obtained. However, in a household with a birth 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>27</sup>

#### **7.5.2.6 Parent Education Variables (X4PAR1ED\_I, X4PAR2ED\_I)**

There are two parent education composite variables on the file: X4PAR1ED\_I (parent 1's highest level of education) and X4PAR2ED\_I (parent 2's highest level of education). This composite variable describes the education level of parents who were in the household at the time of the spring 2012 interview. If a parent figure in the spring of 2012 was also a household member in the kindergarten year, and educational data about the highest education level were collected for that person in the kindergarten year, then questions about education level were not asked in spring 2012; in these cases that parent's highest education level from the base-year composite X12PAR1ED\_I or X12PAR2ED\_I was carried forward to X4PAR1ED\_I or X4PAR2ED\_I, depending on whether the person was identified as parent 1 or parent 2, respectively.<sup>28</sup> The composite variables are based on reports of the parent's highest education level (P4HIG\_1\_I, P4HIG\_2\_I) and whether the parent had a high school degree or its equivalent, such as a GED (P4HIS\_1\_I, P4HIS\_2\_I).<sup>29</sup> If the highest education level reported for a parent was in grades 0

<sup>27</sup> In spring 2012, there are races and ethnicities for persons who did not qualify to have race and ethnicity asked in spring 2012, but did qualify to have race and ethnicity collected in an earlier round of the study. Persons who have race and ethnicity on the file for spring 2012 include the focal child; those with a relationship of mother/female guardian or father/male guardian in any round (P\*REL\_\* = 1 or 2 or P\*UNR = 3 or 4); those who were a respondent in any round (P\*PER\_\* = 1); and persons who were spouse/partners of respondent parents in any round. This is different from how race and ethnicity were included on the file for spring 2011. In spring 2011, with some exceptions noted in the base-year user's manual, the races and ethnicities on the file were for persons who qualified to have race and ethnicity in that round.

<sup>28</sup> The skip in the spring 2012 parent education section was based on highest education level from fall 2010 or spring 2011 (P1HIG\_1, P1HIG\_2, P2HIG\_1, P2HIG\_2) rather than high school degree/GED (P1HIS\_1, P1HIS\_2, P2HIS\_1, P2HIS\_2). Cases that had missing data for high school degree/GED (P1HIS\_1, P1HIS\_2, P2HIS\_1, P2HIS\_2) were treated on the X12PAR1ED\_I and X12PAR2ED\_I variables as if there was no high school degree/GED. In spring 2012, the high school degree/GED (P1HIS\_1, P1HIS\_2, P2HIS\_1, P2HIS\_2) data are imputed if they are missing, and this value is incorporated into X4PAR1ED and X4PAR2ED.

<sup>29</sup> For some cases, education, data were collected in spring 2011 and inadvertently collected again for the same parents in spring 2012. There was a programming issue that resulted in data being reversed between the parents in the household so that education data were collected again for

through 12 (e.g., P4HIG\_1\_I=11) and the parent had a high school degree or its equivalent (e.g., P4HIS\_1\_I=1 or 2), or if the highest education level was 13 (high school equivalent/GED) or 14 (high school diploma), then the composite variable is coded as 3 (high school diploma or equivalent). Otherwise, the education composite is coded according to the value of the highest education level even if the data for whether the parent had a high school degree or its equivalent were missing. Some codes on the highest education question were grouped together in the composite variable categories. The categories “vocational/technical after high school, but no vocational/technical diploma” and “vocational technical program after high school diploma” (e.g., P4HIG\_1\_I=15 or 16) were coded as 4 (vocational/technical program). The categories “some college, but no degree” and “associate’s degree” (P4HIG\_1\_I=17 or 18) were coded as 5 (some college). The categories “doctorate degree” and “professional degrees after a bachelor’s degree” (e.g., P4HIG\_1\_I=22 or 23) were coded as 9 (doctorate or professional degree).

The variables reflect the education level of the household member(s) corresponding to X4IDP1 and X4IDP2. For example, if X4IDP1 and X4IDP2 pointed to a child’s grandmother and grandfather, then the highest level of education would be collected about these nonparent guardians. See section 7.5.2.4 for more detailed discussion of how X4IDP1 and X4IDP2 were determined.

As described in section 7.5.2.9, education data are imputed if they are missing. In the base year of the study, the composite variable for parent education itself was imputed; however, for the spring 2012 parent interview data, the variables used to create the composite education variable (highest education and whether the parent had a high school degree or equivalent) were first imputed, and these imputed variables were used to compute the composite variable.

#### **7.5.2.7 Parent Occupation Variables (X4PAR1EMP\_I, X4PAR2EMP\_I, X4PAR1OCC\_I, X4PAR2OCC\_I, X4PAR1SCR\_I, X4PAR2SCR\_I)**

Several composites can be used to describe parents’ employment status, their occupations, and the prestige of their occupations. The pointer variables for employment data, P4EMPP1 and P4EMPP2, are set to the same value as X4IDP1 and X4IDP2, and can be used to identify the household roster number of the individual(s) to which the data refer.

---

some parents who had previous education data and not collected for those with missing data from spring 2011. For persons who had education data collected in both spring 2011 and spring 2012, the composites for parent education use the most recently obtained data from spring 2012. Missing data were imputed.

X4PAR1EMP\_I and X4PAR2EMP\_I describe the work status of parent 1 and parent 2, respectively, and are based on the number of hours parents worked in the past week (e.g., P4HRS\_1\_I) or if a parent did not work, is based on activities the parent did to look for work (e.g., P4DO1\_1\_I). More specifically, X4PAR1EMP\_I (parent 1 employment status), is coded 1 (35 hours or more per week) if parent 1 worked 35 or more hours per week, and coded 2 (less than 35 hours per week) if parent 1 worked 0 to 35 hours per week. X4PAR1EMP\_I is coded as 2 when P4HRS\_1\_I = 0 because the respondent indicated that the parent was employed even if he or she on average worked less than one hour per week. If parent 1 was actively looking for work (P4LOK\_1\_I=1) and did one of five activities to look for work (P4DO1\_1\_I=1 (checked with a public employment agency); P4DO2\_1\_I=1 (checked with a private employment agency); P4DO3\_1\_I=1 (checked with an employer directly or sent a resume to an employer); P4DO4\_1\_I=1 (checked with friends or relatives); or P4DO5\_1\_I=1 (placed or answered ads/sent a resume related to an ad)), then X4PAR1EMP\_I is coded 3 (looking for work). If parent 1 was not working for pay, not on vacation, and not looking for work (P4PAY\_1\_I=2 and P4VAC\_1\_I=2 and P4LOK\_1\_I=2), or if parent 1 was looking for work (P4LOK\_1\_I=1) and the variables for the five activities indicating the parent was actively looking for work were all coded 2 (no), X4PAR1EMP\_I is coded 4 (not in the labor force).<sup>30</sup> X4PAR2EMP\_I (parent 2 employment status) is created the same way as X4PAR1EMP\_I, but uses the data linked to parent 2.

Imputation was performed on the variables (e.g., P4HRS\_1\_I, P4DO1\_I) that were used to create the X4PAR1EMP\_I and X4PAR2EMP\_I composite variables. Each variable has a separate imputation flag (e.g., IFP4PAY\_1 is the imputation flag for P4PAY\_1\_I, the variable for whether parent 1 had paid job last week) indicating whether data were imputed for each case in the data file. Imputation is described in section 7.5.2.9.

If a parent figure in the spring 2012 parent interview was also a parent figure in the fall 2010 parent interview, and occupational data were collected for that parent in that earlier round, a question was asked about whether the parent had changed his or her employment situation (P4EMPCHG\_1\_I and P4EMPCHG\_2\_I) since the date of the fall 2010 interview. If no change in employment was reported,

---

<sup>30</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 (P4LOK\_1\_I = 1), the parent is coded as not in the labor force (X4PAR1EMP\_I = 4) rather than as looking for work (X4PAR1EMP\_I = 3). If a parent was reported as looking for work (P4LOK\_1\_I=1), the questions about the parent's last occupation were asked. There are 207 cases with occupation data that are categorized as X4PAR1EMP = 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; there are 65 cases with occupation data for where X4PAR2EMP = 4. Among these cases, in one case for X4PAR1OCC\_I and three cases for X4PAR2OCC\_I, a parent who is not working, on vacation, or looking for work has an occupation code. In these cases, the parent was initially reported as looking for work and the occupation information was collected. However, in "other, specify" response upcoding, the parents' status on P4LOK\_\* (looking for work) was changed to not looking for work because the information provided in the other, specify text field did not indicate an activity that qualified them to be categorized as actively looking for work. The collected occupation information was retained for these cases.

then information about the hours of work per week and the number of jobs the parent had was collected and used in creating the employment composite variable, but other questions about employment and occupation were not asked. In these cases, the fall 2010 parent interview data were brought forward and used in the most recent occupation composite variable.

The composite variables for parent occupation, X4PAR1OCC\_I and X4PAR2OCC\_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 in which the parent worked, the parent's job title, and the most important activities or duties the parent did for the job (EMQ120, EMQ130, EMQ140, EMQ150). This identifying information is not included in the file due to privacy issues. It was used to code occupations into standard categories 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 it was unclear which of the 22 codes should be used for an occupation using this manual, the more detailed coding system in the *Standard Occupational Classification Manual—1980* (U.S. Department of Commerce, Office of Federal Statistical Policy and Planning, 1980) was used to identify the appropriate occupation code. The *Standard Occupational Classification Manual* is the full, detailed coding scheme of which the NHES coding scheme is a condensed version, and thus provides more detail for making coding decisions. 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.

**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 education).

**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.

**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.

**16. Mechanics and Repairers**

This category includes 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.

**18. Precision Production Occupations**

This category 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”).

Once occupations were classified in X4PAR1OCC\_I and X4PAR2OCC\_I, they were assigned the average of the 1989 General Social Survey (GSS) prestige scores, which are reported in variables X4PAR1SCR\_I and X4PAR2SCR\_I. If the parent’s occupation was 22 (Unemployed, Retired, Unclassifiable), the prestige score was set to -9 (not ascertained). If the parent’s occupation was -1 (No Occupation) on X4PAR1OCC\_I or X4PAR2OCC\_I, the prestige score was also coded -1. 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>31</sup> Because these prestige scores were also used for the ECLS-K 1998–99 cohort, they allow for comparisons to the ECLS-K. Table 7-2 provides the prestige score values for each occupation category.

Table 7-2. Occupation categories and assigned prestige scores

Occupation category	Prestige score
1 Executive, Administrative, and Managerial Occupations	53.50
2 Engineers, Surveyors, and Architects	64.89
3 Natural Scientists and Mathematicians	62.87
4 Social Scientists, Social Workers, Religious Workers, and Lawyers	59.00
5 Teachers: College/University/Postsecondary; Counselors/Librarians/Archivists	72.10
6 Teachers, Except Postsecondary Institution	63.43
7 Physicians, Dentists, and Veterinarians	77.50
8 Registered Nurses, Pharmacists, Dietitians, Therapists, and Physician’s Assistants	61.56
9 Writers, Artists, Entertainers, and Athletes	52.54
10 Health Technologists and Technicians	57.83
11 Technologists and Technicians, Except Health	48.69
12 Marketing and Sales Occupations	35.78
13 Administrative Support Occupations, Including Clerks	38.18
14 Service Occupations	34.95
15 Agricultural, Forestry, and Fishing Occupations	35.63
16 Mechanics and Repairers	39.18
17 Construction and Extractive Occupations	39.20
18 Precision Production Occupations	37.67
19 Production Working Occupations	33.42
20 Transportation and Material Moving Occupations	35.92
21 Handlers, Equipment Cleaners, Helpers, and Laborers	29.60
22: Unemployed, Retired, Disabled, or Unclassified Workers (If a person was on leave from a job or unemployed and actively looking for work, he or she was asked the occupation questions. Category 22 was used only if a respondent reported an occupation that could not be classified in the coding scheme, “unemployed,” or “retired.”)	Because these occupations could not be classified, the prestige score is coded -9 (not ascertained)
-1 (No occupation)	When occupation is -1, the prestige score is also -1.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2012.

<sup>31</sup> New technology jobs that came into existence since 1989 were appropriately coded. For example, “website developer” was included in the “Technologists and Technicians, Except Health” category; “website sales” was included in the “Marketing and Sales Occupations” category; and “run web printer” was included in the “Production Working Occupations” category.



As described in section 7.5.2.9, occupations were imputed if such information was not collected in the parent interview. The imputation flag variables IFX4PAR1OCC and IFX4PAR1SCR indicate whether the occupation (X4PAR1OCC\_I) and occupational prestige score (X4PAR1SCR\_I) for parent 1 were imputed. These flags match in value because the prestige score (e.g., X4PAR1SCR\_I) is coded directly from occupation (e.g., X4PAR1OCC\_I). Similarly, the flags IFX4PAR2OCC and IFX4PAR2SCR indicate whether the occupation (X4PAR2OCC\_I) and occupational prestige score (X4PAR2SCR\_I) for parent 2 were imputed.

#### **7.5.2.8 Household Income and Poverty (X4INCCAT\_I, X4POVTY\_I)**

Household income data were collected in the spring 2012 parent interview. Parents who participated in the spring 2011 parent interview were told what detailed income range (from PAQ110 in spring 2011) was reported in that interview and asked if their household income was still in that range. Parents who said their income changed and those who had missing income information from spring 2011 because of item or unit nonresponse 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>32</sup>

The composite X4INCCAT\_I was created using the detailed income range information. If the respondent reported that the range in which household income fell was the same as the range reported in the spring of 2011 (P4INCSAM\_I = 1), then the value of X2INCCAT\_I (the composite from spring 2011) was used for the value of X4INCCAT\_I. Otherwise, X4INCCAT\_I was set to the value of P4INCLOW\_I (detailed income range for those who reported the broad income range in P4HILOW\_I as \$25,000 or less) or P4INCHIG (detailed income range for those who reported the broad income range in P4HILOW\_I as more than \$25,000). When data for the broad range variable (P4HILOW\_I) or one of the detailed range variables (P4INCLOW\_I, P4INCHIG\_I) were missing (i.e., coded -7 (refused), -8 (don't know), or -9 (not ascertained)), income information was imputed. Section 7.5.3.8 has a description of the imputation of missing data for the components used in the calculation of X4INCCAT\_I.

---

<sup>32</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 determine whether household income was near 200 percent of the federal poverty threshold given household size. If so, follow-up question about exact income were asked.

Table 7-3. Detailed income range categories used in the parent interview: Spring 2012

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2012.

Reported income was used to determine household poverty status in the spring of 2012, which is provided in variable X4POVTY\_I. For some households, more detailed information about household income than the ranges described above was collected. Specifically, when parent respondents reported a detailed household income range suggesting the household income 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) in order to determine household poverty status more accurately. Table 7-4 shows the reported detailed income categories for households of a given size for which respondents were asked the exact income question. For example, a respondent in a household with two people would have been asked to provide an exact income if the respondent had indicated that their household income was in the range of less than or equal to \$30,000. Table 7-4 also shows how the income categories compare to the value that is 200 percent of the weighted average 2011 poverty threshold.<sup>33</sup>

<sup>33</sup> The CAPI program used to conduct the parent interview was programmed to only ask for exact income when parent respondents reported a detailed household income range suggesting the household income was close to or lower than 200 percent of the U.S. Census Bureau poverty threshold for a household of its size. Although the parent interview in which this information was collected was conducted in the spring of 2012, the 2010 poverty thresholds were used for instrument programming because they were the most recent thresholds available when programming was done. The question about exact income was asked for the following conditions: (NUMBER IN HH = 1 AND PAQ110 < 6) OR (NUMBER IN HH = 2 AND PAQ110 < 7) OR (NUMBER IN HH = 3 AND PAQ110 < 8) OR (NUMBER IN HH = 4 AND PAQ110 < 10) OR (NUMBER IN HH = 5 AND PAQ110 < 12) OR (NUMBER IN HH = 6 AND PAQ110 < 13) OR (NUMBER IN HH = 7 AND PAQ110 < 15) OR (NUMBER IN HH = 8 AND PAQ110 < 17) OR (NUMBER IN HH >= 9 AND PAQ110 < 17).

When information about exact household income was available (P4TINCTH\_I), it was used in conjunction with household size (X4HTOTAL) to calculate the poverty composite. When exact income was not available because the exact income question was not asked, the midpoint of the detailed income category (X4INCCAT\_I) was used in conjunction with household size (X4HTOTAL).<sup>34</sup>

Table 7-4. Criteria for reporting income to the nearest \$1,000 in the spring parent interview and 2011 thresholds for 200 percent of poverty: Spring 2012

Household size	ECLS-K:2011 parent interview income categories	200 percent of weighted average thresholds for 2011 <sup>1,2</sup>
Two	Less than or equal to \$30,000	\$29,314 or less
Three	Less than or equal to \$35,000	\$35,832 or less
Four	Less than or equal to \$45,000	\$46,042 or less
Five	Less than or equal to \$55,000	\$54,502 or less
Six	Less than or equal to \$60,000	\$61,694 or less
Seven	Less than or equal to \$70,000	\$70,170 or less
Eight	Less than or equal to \$100,000	\$78,128 or less
Nine or more	Less than or equal to \$100,000	\$93,144 or less

1 U.S. Census Bureau, Current Population Survey. Poverty Thresholds for 2011 by Size of Family and Number of Related Children Under 18 Years Old, retrieved 9/3/2013 from <http://www.census.gov/hhes/www/poverty/data/threshld/index.html>.

2 The 2011 weighted poverty thresholds were used for the poverty composite because respondents in the spring of 2012 were asked about household income in the past year. At the time that the spring 2012 parent interview was finalized, the most updated poverty thresholds available were the weighted 2010 poverty thresholds. Poverty thresholds for 2011 were similar to the poverty thresholds for 2010. However, because of differences in four categories, exact income should have been asked for some narrow ranges of incomes according to the 2011 thresholds, but it was not asked because the 2010 thresholds were used. Using the 2011 poverty thresholds rather than the 2010 poverty thresholds, any cases with the following incomes were not asked exact income when they should have been: a household of three with an income between \$35,001 and \$35,832, a household of four with an income of \$45,001 to \$46,042; a household of six with an income between \$60,001 and \$61,694, and a household of seven with an income between \$70,001 and \$70,170.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2012.

Household poverty status in the spring of 2012 was determined by comparing total household income reported in the parent interview to the weighted 2011 poverty thresholds from the U.S. Census Bureau (shown in Table 7-5), which vary by household size. Although the parent interview was conducted in the spring of 2012, the 2011 weighted poverty thresholds were used in the derivation of the poverty composite because respondents were asked about household income in the past year. Exact income (P4TINCTH\_I) was asked in the parent interview or imputed for all persons in categories 1 and 2 of the poverty composite. Imputation of exact income was conducted according to thresholds in the parent interview. Households with an exact income that fell below the appropriate threshold were classified as category 1, “below the poverty threshold,” in the composite variable. Households with an exact income that was at or above the poverty threshold but below 200 percent of the poverty threshold were classified

<sup>34</sup> Because exact income information was not collected from all parents, the ECLS-K:2011 provides an approximate but not exact measure of poverty.

as category 2, “at or above the poverty threshold, but below 200 percent of the poverty threshold,” in the composite variable. Households with a total income (either exact or the income representing the midpoint of the detailed range reported by the composite) that was at or above 200 percent of the poverty threshold were classified as category 3, “at or above 200 percent of the poverty threshold,” in the composite variable.<sup>35</sup> For example, if a household contained two members and the household income was lower than \$14,657, 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 \$14,657 or more, but less than \$29,314 (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 \$29,314 or more, the composite would have a value of 3.

Table 7-5. ECLS-K:2011 poverty composite and 2011 census poverty thresholds: Spring 2012

Household size poverty threshold	Census weighted average poverty thresholds for 2011 (X4POVTY_I = 1) <sup>1</sup>	100 percent to less than 200 percent of census weighted average poverty thresholds for 2011 (X4POVTY_I = 2) <sup>1</sup>	Census weighted average thresholds for poverty 2011 <sup>1</sup>
Two	Less than \$14,657	\$14,657 to less than \$29,314	\$14,657
Three	Less than \$17,916	\$17,916 to less than \$35,832	\$17,916
Four	Less than \$23,021	\$23,021 to less than \$46,042	\$23,021
Five	Less than \$27,251	\$27,251 to less than \$54,502	\$27,251
Six	Less than \$30,847	\$30,847 to less than \$61,694	\$30,847
Seven	Less than \$35,085	\$35,085 to less than \$70,170	\$35,085
Eight	Less than \$39,064	\$39,064 to less than \$78,128	\$39,064
Nine or more	Less than \$46,572	\$46,572 to less than \$93,144	\$46,572

<sup>1</sup> U.S. Census Bureau, Current Population Survey. Poverty Thresholds for 2011 by Size of Family and Number of Related Children Under 18 Years Old, retrieved 9/3/2013 from <http://www.census.gov/hhes/www/poverty/data/threshld/index.html>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2012.

### 7.5.2.9 Socioeconomic Status (SES) (X4SESL\_I)

SES was computed at the household level using data collected from parents who completed the parent interview in the spring of 2012. The SES variable reflects the socioeconomic status of the household at the time of data collection, although data for one component of SES, education, may have been collected at an earlier time point. The five components used to create the SES are as follows:

<sup>35</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.

- Parent/guardian 1’s education;
- Parent/guardian 2’s education;
- Parent/guardian 1’s occupational prestige score;
- Parent guardian 2’s occupational prestige score; and
- Household income.

Not all parents completed the parent interview in the spring of 2012; among those who did, not all responded to every question. There are 5,222 children for whom no spring 2012 parent interview was completed. Table 7-6 shows the numbers of cases with missing data on each of the five component variables used to compute SES, among the 12,952 children who had an otherwise complete parent interview.

Table 7-6. Missing data for socioeconomic status (SES) source variables, first-grade year: School year 2011–12

Variable	Number missing	Percent
Parent/guardian 1’s education	165	1.27
Parent/guardian 2’s education	175	1.35
Parent/guardian 1’s occupation	763	5.89
Parent/guardian 2’s occupation	612	4.73
Detailed income range	1,669	12.89

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2012.

In order to provide SES data for as many children who had an otherwise complete parent interview as possible, missing values were imputed for each of the individual items used to compute the composite variables that factor into the derivation of SES, namely parent education, employment, occupational prestige, and household income. For example, missing values for highest grade completed (P4HIG\_n\_I) and diploma status (P4HIS\_n\_I) were imputed for cases for which these items were asked in the spring of 2012 but the data were missing (-7 (refused), -8 (don’t know), or -9 (not ascertained)) and those imputed data were used to compute the parent education composite variables. Missing data for individual items related to parent employment (whether employment had changed since the spring of 2011, whether the parent had worked for pay in the last week or was on leave or vacation, hours worked in a typical week, whether the parent was looking for work and if, so, what the parent was doing to find work) were imputed, and then those imputed data were used to compute the occupation composite variables if necessary (i.e., cases missing employment status that were imputed to be working or on leave from a job also had their occupation imputed and a prestige score assigned to the imputed occupation;

cases missing data for the variables about looking for work and that were imputed to be actively looking for work (defined by EMQ070 answers 1-5) also had occupation imputed). The different income category variables and the question asking whether there was a change in household income from the kindergarten year were also imputed. This was a change in procedure from the imputation method used in the base year where the education, occupation, and household income composites were imputed. Imputing the individual items, rather than the composites, allows any valid data that exist for any items related to the components to be used to compute SES.

Two methods were used to impute missing data: longitudinal imputation and hot deck imputation. Longitudinal imputation (carrying forward a base-year value) was sometimes used when base-year data were available for the items for which data were missing in the spring of 2012. For example, in some cases a parent interview broke off before the questions in the employment section were asked, but employment and occupation data for the parent(s) in the household were available from the base-year data file. Similarly, for some cases data for the income variables were reported in the base year but not in the spring 2012 parent interview. Longitudinal imputation was used to impute data for the various employment and occupation items only for parent figures who were household members in fall 2010 and spring 2012. Longitudinal imputation was used for household income items only if there was no change in parent figures in the household (that is, the two parents or only parent present in spring 2011 remained in spring 2012). Values imputed in this manner are flagged as being imputed longitudinally.<sup>36</sup>

When longitudinal imputation was not possible (either because there was a change in parent figures or base-year data were not available), hot deck imputation was used. In hot deck imputation, the value reported by a respondent for a particular component variable (e.g., highest grade completed or occupation) is assigned or “donated” to a “similar” person who failed to respond to that question. Auxiliary demographic information known for both donors and nonrespondents is used to form imputation cells that include donors and nonrespondents with similar values for the characteristics that define the cells. The specific demographic characteristics used to define imputation cells varied by the component being imputed, as noted below. The imputed value for a case with a missing value is taken from a randomly selected donor among the respondents within the cell.

---

<sup>36</sup> Parent education was not longitudinally imputed. If the data were available from the base year, the questions were not asked in first grade. If they are missing in first grade, they were missing in the base year also. The exception is a very small number of cases in which highest grade was missing in the base year, but diploma status was known. In these cases, the base-year diploma status was used as a sort variable to impute parent education.

For each imputed variable, imputation cells were created using demographic characteristics that were the best predictors of the variable. Characteristics such as census region, school type (public/Catholic/non-Catholic religious/private nonsectarian), school locale (city/suburb/town/ rural), household type (female single parent/male single parent/two parents), 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.

In some cases, data for an item may have been missing for both the spring of 2012 and the base year, but the base-year data were imputed at the composite level rather than at the item level. Where appropriate, imputed base-year composite variables or base-year component variables were used as sort variables in spring 2012 imputation. For example, if highest grade completed is missing in the fall of 2010 (P1HIG\_*n*) and in the spring of 2012 (P4HIG\_*n*\_I) for a given parent, then the imputed value of X12PAR\*ED\_I (the base-year parent education composite variable) was used as a sort variable in the spring 2012 imputation process for that parent.

The order of imputation is parent 1's education variables; parent 2's education variables; parent 1's labor force status variables; parent 1's occupation; parent 2's labor force status variables; parent 2's occupation; whether the household income had changed from the kindergarten year; detailed income range when the broad income range is known; detailed income range when the broad income range is not known; and exact income where applicable based on household income and detailed income range. Imputation cells for each component imputed were created using the other components, when possible.

The hot deck imputation was implemented as follows:

- For households with both 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. For any given component, the imputation cells were created using (1) collected and imputed data for those variables that were imputed before the given component, and (2) collected data only for those variables that were imputed after the given component.
- Values imputed by hot deck were not donated.

After imputation was completed, the occupational prestige variables (X4PAR1SCR\_I and X4PAR2SCR\_I) were created by assigning the average of the 1989 General Social Survey (GSS) prestige score associated with parent occupation, as described above in section 7.5.2.7.

Upon completion of imputation, the composite variables that are used in the computation of SES were created. These are parent education (X4PAR1ED\_I and X4PAR2ED\_I), parent occupational prestige scores (X4PAR1SCR\_I and X4PAR2SCR\_I), and household income (X4INCCAT\_I). Although imputation was conducted on the item-level variables used to compute these composites, the names of the composites themselves also carry the \_I designation to indicate that they contain imputed data. These composite variables do not have their own imputation flags. The imputation flags associated with the variables used to compute the composites can be reviewed to identify cases for which the composite is based on imputed data.<sup>37</sup>

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  $z_{hi}$  for the *i*-th household was computed as

$$z_{hi} = \frac{x_{hi} - \bar{x}_w}{sd(\bar{x}_w)},$$

where

$x_{hi}$  is the value of the *h*-th SES component for the *i*-th household;  
 $\bar{x}_w$  is the weighted mean<sup>38</sup> 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 weight used to compute the *z*-score is the spring first-grade child base weight.

The SES variable for the *i*-th household was then computed as

---

<sup>37</sup> The questionnaire items about occupation (job title, job activities, employer, industry) are not included in the data file; the imputation flags for occupation are associated with the occupation composite variables.

<sup>38</sup> The first-grade base weight (i.e., sample weight) adjusted for base-year nonresponse and mover subsampling was used.



$$SES_i = \frac{\sum_{h=1}^m z_{hi}}{m} ,$$

where  $m$  is the number of components. Note that for households with only one parent present and for parents who were retired or not currently in the labor force, not all the components were defined. In these cases, the SES is the average of the  $z$ -scores of the available components.

#### **7.5.2.10 Respondent ID and Relationship to Focal Child (X4RESID, X4RESREL2)**

The respondent to the parent interview was a person identified as the household member who knew the most about the child’s care, education, and health. X4RESID indicates the household roster number of the spring 2012 parent interview respondent. The relationship variables (P4REL\_1-P4REL\_25, P4MOM\_1-P4MOM\_25, P4DAD\_1-P4DAD\_25, and P4UNR\_1-P4UNR\_25) associated with the respondent’s household roster number were used to code X4RESREL2. If the respondent was a biological mother or father, X4RESREL2 is coded as 1 (biological mother) or 4 (biological father), respectively. If the respondent was an adoptive, step-, or foster mother or father, or other female or male guardian, X4RESREL2 is coded as 2 (other mother type) or 5 (other father type), respectively. If the respondent was a mother or father but the type of mother (P4MOM\_#) or father (P4DAD\_#) was coded as -7 (refused), -8 (don’t know), or -9 (not ascertained), X4RESREL2 is coded as 3 (mother of unknown type) or 6 (father of unknown type).<sup>39</sup> If the respondent was a grandparent, aunt, uncle, cousin, sibling, or other relative, X4RESREL2 is coded as 7 (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, X4RESREL2 is coded as 8 (nonrelative). Otherwise, X4RESREL2 is coded as -9 (not ascertained). Because the interviewer initially asked to speak with the previous round respondent at the beginning of the spring 2012 parent interview, the respondent for the fall 2010 interview (X1RESID), the spring 2011 interview (X2RESID), and the spring 2012 interview (X4RESID) was the same person for many cases.

---

<sup>39</sup> Categories for mothers and fathers of unknown type are new in the spring 2012 composite and were included under “other mother type” and “other father type” in the fall 2010 and spring 2011 composites, X1RESREL and X2RESREL.

### **7.5.3 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 (X34CHGTCH) discussed below in section 7.7 indicating whether the child changed teachers between the fall and spring data collections. There are also composite variables about the child's closeness and conflict with the teacher (X4CLSNSS, X4KCLSNSS, X4CNFLCT, X4KCNFLCT). These are described in chapter 3, along with other variables derived from teacher reports of children's social skills. Other variables that use teacher data are about the child's classroom experiences (e.g., X4CLASS) and are discussed above in section 7.5.1 about the child composites.

### **7.5.4 School and Class Composite Variables**

Variables describing children's school and class characteristics were constructed using data from the teacher, the school administrator, and the sample frame. Details on how these variables were created are provided below.

#### **7.5.4.1 School Type (X4SCTYP)**

In the spring of 2012, the school administrator questionnaire (SAQ) given to administrators in schools that did not have base-year data (SAQ-A) contained a question on school type that was used in the creation of the spring school type composite (X4SCTYP). Base-year data from the round 2 composite, X2SCTYP, were used for the composite X4SCTYP when such data were available.

X4SCTYP was created as follows when SAQ-A was given to school administrators: If question A6 in the SAQ ("Which of the following characterizes your school?") was answered as "a regular public school (not including magnet school or school of choice)" (S4REGPSK); "a public magnet school" (S4MAGSKL); or "a charter school" (S4CHRSKL), the school was coded as "public." If the question was answered as "a Catholic school" of any type (S4CATHOL, S4DIOCSK, S4PARSKL, or S4PRVORS), the school was coded as "Catholic." If the question was answered as "other private school, religious affiliation" (S4OTHREL), the school was coded as "other religious." Otherwise, if the question was answered as "private school, no religious affiliation" (S4OTNAIS, S4OTHRNO), then the school

was coded as “other private.” If there were data from the base year for X2SCTYP, X4SCTYP was set to the value for X2SCTYP. If data from the school administrator questionnaire were missing, information about school type from the school master file (which included FMS and frame data) were used. Homeschooled children have a code of -1 (not applicable).<sup>40</sup> Children who changed schools and were not followed and children who were not located in the spring of 2012 have missing values (-9) for X4SCTYP. The variable X4SCTYP is set to system missing for children who were not participants in the spring 2012 round. In addition, these children have a value of 990000000 on the variable F4CCDLEA.

#### **7.5.4.2 Public or Private School (X3PUBPRI, X4PUBPRI)**

X3PUBPRI and X4PUBPRI are broad indicators of school type (with only two categories—public and private) and are derived from the more detailed school type variables from the school frame for fall 2011 and X4SCTYP described above. In both fall 2011 and spring 2012, these composites were created as follows: If school type indicated in fall 2011 or X4SCTYP is 4 (public), then X3PUBPRI and X4PUBPRI, respectively, are coded “public” (1). If school type indicated in fall 2011 or X4SCTYP is 1, 2, or 3 (Catholic, other religious, or other private), then X3PUBPRI and X4PUBPRI, respectively, are coded “private” (2). If school type is coded as -1 (not applicable) in fall 2011 or in X4SCTYP because the child was homeschooled, then X3PUBPRI and X4PUBPRI are coded -1 (schooled at home). X3PUBPRI and X4PUBPRI are coded -9 (not ascertained) if data on school type are not available in fall 2011 and X4SCTYP, respectively. X3PUBPRI is set to system missing for children who did not participate in round 3; similarly, X4PUBPRI is set to system missing for those who did not participate in round 4.

#### **7.5.4.3 School Enrollment (X4ENRLS)**

There is a composite variable in the data file (X4ENRLS) that indicates total school enrollment on October 1, 2011 (or the date nearest to that date for which the school administrator had data available). Total school enrollment was created using the school enrollment variable from the school administrator questionnaire (S4ANUMCH). 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 2010–11 Common Core of Data (CCD) public school universe data for public schools. If enrollment data were also missing on the PSS or CCD, but spring 2011 enrollment data

---

<sup>40</sup> These children were enrolled in a school at the time of sampling in the base year, but were homeschooled during the spring of 2012.

were available for the school, the value of X4ENRLS was set to the value of X2KENRLS. In all other cases the variable is coded -9 (not ascertained).

#### **7.5.4.4 Percent Non-White Students in the School (X4RCETH)**

The composite variable X4RCETH indicates the percentage of the student population that was non-White in the spring of 2012.<sup>41</sup> The composite is derived from a question in the school administrator questionnaire (question A9 in SAQ-A, and question A6 in SAQ-B) 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/ethnic composition questions as either numbers or percentages. All answers provided as numbers were converted to percentages using the total enrollment variable S4TOTENR as the denominator before computing the composite variable.<sup>42</sup> The sum of the calculated percentages for each race/ethnicity category was allowed to be 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. In a few cases, this procedure resulted in a total sum of percentages that was slightly over 100 percent. Totals greater than 100 percent are top-coded to 100 percent.

---

<sup>41</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>42</sup> There were five recoding rules used for data with apparent errors:

1. If answers were reported as numbers and the total number of students in the school (S4TOTENR) was missing, the total from another question about total enrollment (Q3a S4ANUMCH) was used if the difference between the summed total of students in different race/ethnicity groups and the reported Q3a total was within +/-5 percent of 100 percent (95–105 percent). For example, if the number of students in each race/ethnicity group in the school added to 501 students, but the total number of students by race (S4TOTENR) was missing, and total enrollment from S4ANUMCH was 500 students, the sum of the number of students in the race/ethnicity categories (501) would be 100.2 percent of the value of 500 reported in S4ANUMCH. The value of 100.2 percent is within the 95-105 percent range of allowed errors, so S4ANUMCH is used as the denominator for calculating the percentage of students in each race/ethnicity category.
2. If the method of reporting was mixed (some as numbers, others as percentages), the race/ethnicity percentages were coded as -9 (not ascertained).
3. If percentages were recorded, with none of the above errors, and the summed total across categories was within +/-5 percent of 100 percent (95–105 percent) of the value in S4TOTENR, any race/ethnicity categories that the school administrator left blank were recoded to 0.
4. If the summed total of students in race/ethnicity categories was not +/-5 percent of 100 percent (95–105) percent of the sum reported in S4TOTENR or not 95–105 percent of total enrollment from another question (Q3a S4ANUMCH), the individually reported percentages and numbers were made -9 (not ascertained).
5. If numbers were reported, with none of the above errors, and the summed total across categories was within +/- 5 percent of the reported total, any race/ethnicity categories that the school administrator left blank were recoded to 0.

A flag for each individual race/ethnicity variable indicating whether the school administrator reported the information as a number or a percent is included in the data file.<sup>43</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 (S4ASIAFL S4HISPFL, S4BLACFL, S4WHITFL, S4AIANFL, S4HAWPFL, and S4MULTFL) for each of the race/ethnicity variables (S4ASIAPT, S4HISPPT, S4BLACPT, S4WHITPT, S4AIANPT, S4HAWPPT, and S4MULTPT) is equal to 1, that indicates the information was reported by the school administrator as a percentage. If the flag (S4ASIAFL S4HISPFL, S4BLACFL, S4WHITFL, S4AIANFL, S4HAWPFL, and S4MULTFL) for each of the race/ethnicity variables (S4ASIAPT, S4HISPPT, S4BLACPT, S4WHITPT, S4AIANPT, S4HAWPPT, and S4MULTPT) is equal to 2, that indicates the information was reported by the school administrator as a number.

In some cases, the composite could not be derived from the survey data because at least some data used to compute it were missing or the data collected from administrators appeared to be in error. If the composite could not be derived from the SAQ response, the percentage of non-White students in the school was obtained from the 2010–11 CCD (for public schools) or the 2009–10 PSS (for private schools). If these data were also missing on the CCD or PSS, the composite was coded based on the spring kindergarten composite X2RCETH if the child attended the same school. If those data were also missing, X4RCETH is coded -9 (not ascertained). If the study child was homeschooled in the spring of 2012, the composite is coded -1 (not applicable).

#### **7.5.4.5 Highest and Lowest Grade at the School (X4LOWGRD, X4HIGGRD)**

Two composite variables indicate the lowest grade taught at the school (X4LOWGRD) and the highest grade taught at the school (X4HIGGRD). They are derived from information collected from the school administrator during the spring data collection (for administrators in schools for which base-year data were not available, who received questionnaire SAQ-A) or during the base year (for

---

<sup>43</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 S4ADAFGL (average daily attendance reported as number or percent); S4ASIAF2 (question about Asian or Pacific Islander teachers, not Hispanic or Latino, reported as number or percent); S4HISPF2 (question about Hispanic teachers reported as number or percent); S4BLACF2 (question about Black teachers, not Hispanic or Latino, reported as number or percent); S4WHITF2 (question about White teachers, not Hispanic or Latino, reported as number or percent); S4AIANF2 (question about American Indian or Alaska Native teachers, not Hispanic or Latino, reported as number or percent); S4HAWPF2 (question about Native Hawaiian or Pacific Islander teachers, not Hispanic or Latino, reported as number or percent); and S4MULTF2 (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.

administrators in schools for which base-year data were available who received questionnaire SAQ-B). For administrators who received questionnaire SAQ-A, both variables are created by first coding answers of “ungraded” in question A5 of the SAQ-A (“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). For administrators who received questionnaire SAQ-B because they had data about the highest and lowest grade at the school collected during the base-year of the study, the composites X4HIGGRD and X4LOWGRD were set to the base-year composite values for X2HIGGRD and X2LOWGRD, respectively. Data from the school frame were used if information about the highest and lowest grade at the school was not collected from the school administrator.

#### **7.5.4.6 Students Approved for Free or Reduced-Price School Meals (X4FMEAL\_I, X4RMEAL\_I)**

Composites indicating the percent of students in the school who were approved for free school meals and the percent of students in the school who were approved for reduced-price school meals were derived from information collected from the school administrator during the spring 2012 data collection.<sup>44</sup>

School administrators were asked to report the total enrollment in the school (S4ANUMCH\_I), the number of children in the school who were approved for free school meals (S4NMFRM\_I), and the number of children who were approved for reduced-price school meals (S4NMRDM\_I). The percentage of children approved for free school meals is computed as the ratio of S4NMFRM\_I to S4ANUMCH. Likewise, the percent of children approved for reduced-price school meals is the ratio of S4NMRDM\_I to S4ANUMCH\_I.<sup>45</sup> Children who were homeschooled have these free and reduced-price meal composites set to -1.

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 free or reduced-price meals. Table 7-7 shows the level of missing data for the school meal composite

---

<sup>44</sup> Both public schools and nonprofit private schools are eligible for the National School Lunch Program.

<sup>45</sup> X4FMEAL\_I and X4RMEAL\_I were top-coded to 100 percent, if necessary.

variables among the schools that had at least one child or parent respondent in the spring 2012 data collection. Missing data for the school meal composite variables were imputed for all cases that are considered participants in the spring 2012 round and attended a public or private school that reported participating in the USDA school breakfast or lunch program.<sup>46</sup> Values of zero were imputed for cases for which the school administrator indicated the school did not participate in the USDA meal program and did not report the number of approved students.

Table 7-7. Public and private schools with missing values for the school meal composites: Spring 2012

School meal composites	Number missing	Percent missing	Number of students in these schools	Percent of students with missing values
Free meal	236	12.07	1599	10.22
Reduced-price meal	275	14.07	1854	11.84

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), spring 2012.

Values were imputed in several ways. If a school administrator questionnaire was completed, but data for one or more of the variables contributing to the school meal composites (S4ANUMCH\_I, S4NMFRM\_I, S4NMRDM\_I) were missing in the spring of 2012, the missing spring 2012 values were imputed as the base-year values from the composites for reduced-priced (X2RLCH2\_I) and free school meals (X2FLCH2\_I).

If the base-year data were not available, data from the 2010–11 CCD were used to impute for these missing values for public schools.<sup>47</sup> Imputation using data from the PSS could be done for private schools if total school enrollment (S4ANUMCH\_I) was the only piece of information missing because the PSS does not have information on receipt of free or reduced-price meals.

If any of the variables contributing to the school meal composites could not be imputed using the procedures just described, they were imputed using the hot-deck method described above in

<sup>46</sup> In some instances, the school administrator did not report whether the school participated in the USDA school breakfast or lunch program but did report the numbers of students approved for free and/or reduced-price meals. In such instances, the variable indicating whether a school participated in the USDA school breakfast or lunch program was left as missing in the data file. Users may want to recode the variable to indicate that the school did participate.

<sup>47</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 questions in the ECLS-K:2011 school administrator questionnaire, the composites are now defined as the number of students approved for free/reduced-price meals. If there are missing data from the school administrator questionnaire, data about the number of students eligible for free/reduced price lunch may be imputed from the CCD for public schools. Based on advice from the Economic Research Service at the U.S. 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.

section 7.5.2.9. In hot-deck imputation, a school with a non-missing value for a component has this value assigned or “donated” to a similar school with a missing value for the component. 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 X4DISTPOV described in section 7.5.7), census region, school type, and whether the school received Title I funding.

The hot deck method was applied as follows. First, any missing values for total enrollment were imputed. Then the *proportions* of students approved for free and reduced-price lunch were imputed from similar donors. The imputed proportions were then multiplied by the total enrollment to give the imputed values of S4NMFRM\_I and S4NMRDM\_I. This approach was used to ensure that imputation resulted in plausible combinations of S4NUMCH\_I, S4NMFRM\_I, and S4NMRDM\_I.

When no school administrator questionnaire was completed, the composite variables X4FMEAL\_I and X4RMEAL\_I were imputed directly, without imputing the individual components first. Imputation in these cases was first attempted by using frame information, then by carrying forward the composite value from spring 2011 where available. Finally, for a few cases, hot-deck imputation was used to impute the composites, when no frame or base-year data were available.

In some cases, the children’s schools are unknown because the child was unlocatable or the child moved to a nonsampled county and was not followed into his/her school, but a parent interview was completed. In such cases, data were not imputed for these composites because no information about the school was available (e.g., public or private control, school size, or even if the child was enrolled in a school). X4FMEAL\_I and X4RMEAL\_I are coded as -9 for these cases.

#### **7.5.4.7 School Year Start and End Dates (X4SCHBDD, X4SCHBMM, X4SCHBYY, X4SCHEDD, X4SCHEMM, X4SCHEY)**

The composite variables indicating school year start and end dates, which are listed below, were derived from question A2 in the school administrator questionnaires (S4SYRSMM, S4SYRSDD, S4SYRSYY, S4SYREMM, S4SYREDD, S4SYREYY). If the school administrator did not answer that question, data for these variables come from information contained in the FMS.

- X4SCHBDD – X4 School Year Starting Date, Day;
- X4SCHBMM – X4 School Year Starting Date, Month;



- X4SCHBYY – X4 School Year Starting Date, Year;
- X4SCHEDD – X4 School Year Ending Date, Day;
- X4SCHEMM – X4 School Year Ending Date, Month; and
- X4SCHEY Y – X4 School Year Ending Date, Year.

**7.5.4.8 Geographic Region and Locality of the Child’s School (X3REGION, X4REGION, X3LOCALE, X4LOCALE)**

Composite variables indicating the geographic region (X3REGION, X4REGION) and locality type (X3LOCALE, X4LOCALE) of the child’s school come from the 2009–10 PSS for private schools and the 2010–11 CCD for public schools. For the fall 2011 and spring 2012 geographic region composites, X3REGION and X4REGION, if the geographic region is missing in the PSS and CCD files and the geographic region for the school was provided in the base year, the composite was set to the value from the base year (as reported in either X1REGION or X2REGION). If composite data from the base year were also missing, then the state in which the school was located was used to assign region. Values for X3REGION and X4REGION 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.

X3REGION and X4REGION are coded -9 (not ascertained) for children who were unlocatable or moved out of a sampled county and were not followed in the fall of 2011 or spring of 2012, respectively, but for whom there are parent interview data. Children who were homeschooled in the fall of 2011 have a code of -1 on X3REGION, and those homeschooled in the spring of 2012 have a code of -1 on X4REGION. X3REGION and X4REGION are set to system missing for those who did not participate in rounds 3 or 4, respectively.

For the fall 2011 and spring 2012 school locality variables, X3LOCALE and X4LOCALE, the categories correspond to the 2006 NCES system 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, and locale data were available from the base year, the composites were set to the value of X2LOCALE or X1LOCALE. Otherwise, the composites are coded -9 (not ascertained). Some -9 (not ascertained) values for X3LOCALE and X4LOCALE are associated with cases in which children who moved were unlocatable or moved out of a sampled county and were not followed in fall 2011 or spring 2012, respectively, but for whom there is parent interview data. In fall 2011, children who were homeschooled are coded as -1 on X3LOCALE and those homeschooled in spring 2012 are coded as -1 on X4LOCALE. X3LOCALE and X4LOCALE are set to system missing for those who did not participate in rounds 3 or 4, respectively. 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; and

**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.

Some schools have different values for X\*LOCALE between the base year and rounds 3 and 4. The differences in values reflect changes in the PSS or CCD source data.

The classification of locale has undergone some changes since the ECLS-K study conducted with children in the kindergarten class of 1998-99. Information on these changes is available at the NCES website at [http://nces.ed.gov/ccd/rural\\_locales.asp](http://nces.ed.gov/ccd/rural_locales.asp).

### **7.5.5 Field Management System (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 schools and discussions with school staff.

#### **7.5.5.1 Year-Round Schools (X4YRRND)**

The year-round school composite variable is based on information obtained from the school staff member who helps coordinate the data collection activities in the school (referred to as the school coordinator) about whether a school is a year-round school. It is not based on information from the school administrator collected in the SAQ. The values for this composite variable are 1 (year-round school) and 0 (not year-round school). If the child was homeschooled in the spring of 2012, the composite is coded as -1 (not applicable). If these data were not obtained in the spring of 2012 but the data about being a year-round school was collected in the base year, the composite was set to the value of the base-year composite, X12YRRND.

### **7.5.6 School District Poverty (X4DISTPOV)**

X4DISTPOV is a district-level indicator of the percentage of children age 5–17 in a school district who are in poverty. It is derived from the 2010 Small Area Income & Poverty Estimates (SAIPE) and is computed as 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. The school district boundaries were based on the 2010 school district mapping survey that included school districts as of January 1, 2010 and reflect district boundaries for the 2010-11 school year (U.S. Census Bureau n.d.). There are 60 ECLS-K:2011 public schools with a missing value for X4DISTPOV because the values were missing in the SAIPE source data.

### **7.6 Methodological Variables**

To facilitate methodological research, 11 variables pertaining to aspects of the data collection work are included in the data file. These include identifiers for parent interview work area (F3PWKARE, F4PWKARE), parent interviewer identification number (F3PINTVR, F4PINTVR), child assessment work area (F3CWKARE, F4CWKARE), and child assessor identification number (F3CASSOR, F4CASSOR) 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 Teachers Between Rounds (X34CHGTCH)**

Teacher identification numbers (T3\_ID, T4\_ID) and school identification numbers (S3\_ID, S4\_ID) were used to determine whether children changed teachers between the fall of 2011 and the spring of 2012. This variable is only valid for cases that participated in the fall data collection. Otherwise, if the fall and spring teacher identification numbers are not missing and are equal to each other, then X34CHGTCH is coded 0 (no change). If a teacher identification number is missing in either the fall of 2011 or the spring of 2012, and the school identification numbers are not missing and do not match, then X34CHGTCH is coded as 1 (changed teachers). If both teacher identification numbers are not missing and they are not equal to each other, then X34CHGTCH is also coded as 1 (changed teachers). Otherwise, if the child could not be located or one or both teacher identification numbers are missing and the child is

in the same school, X34CHGTCH is coded as -9 (not ascertained). Children who were homeschooled in the spring of 2012 have a code-1, “schooled at home,” for X34CHGTCH.<sup>48</sup>

## **7.8 Summer School and Vacation (X3SUMSH, X3SUMVD)**

One composite variable provides the number of hours a child spent in summer school during the summer of 2011 (X3SUMSH) and another indicates the length of a child’s summer vacation (X3SUMVD). X3SUMSH is derived from parent interview questions on whether the child attended summer school, the length of the summer school session itself (days, weeks, or months), and the amount of time, in days and hours per day, of attendance (P3SUMSCH, P3SMSCNUM, P3SMSCUNT, P3NDYPRM, and P3NHRPRM). If the child did not attend summer school then X3SUMSH is set to 0. If the variables indicating (1) that the child attended summer school or (2) the amount of time in summer school were -7 (refused), -8 (don’t know), or -9 (not ascertained), then X3SUMSH is set to -9 (not ascertained).

X3SUMVD indicates the length of a child’s summer vacation in days. It is calculated as the length of time between the last day of school in the kindergarten year and the first day of school in the 2011–12 school year. The ending date of the child’s spring kindergarten school (X2SCHEMM, X2SCHEDD) is subtracted from the round 4 composites for the beginning date of the child’s round 3 school (X4SCHBMM, X4SCHBDD) or from beginning dates in the school master file if the composite school beginning dates are not available because the child was not a round 4 participant. If the child is homeschooled in fall 2011, X3SUMVD is set to -1 (inapplicable). When data for any of the components needed to derive this composite are missing, the composite is set to -9 (not ascertained). This includes instances where the child switched schools between rounds 3 and 4 thus making the child’s round 4 school data no longer a suitable replacement for round 3 data.

---

<sup>48</sup> Some children who were participants in round 3 were not participants in round 4 (198 children). Of this group, 133 have no round 4 teacher ID, and 103 have an unidentified school (S4\_ID in the 99\*\* series). It was assumed that those moving from a known school to a school in the 99\*\* series changed schools and, therefore, teachers.

*This page intentionally left blank.*

## **8. ELECTRONIC CODEBOOK**

### **8.1 Introduction**

This chapter provides specific instructions for installing the ECLS-K:2011 Electronic Codebook (ECB). The functionality of the ECB, which is the same throughout the three ECLS studies, is fully described in the Help File for the ECLS-K:2011 longitudinal kindergarten–first grade (K-1) ECB on CD-ROM. The information in the ECB’s Help File 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.

Additionally, the ECLS-K:2011 K-1 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; 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 x 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 sidebar.

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 sidebar.

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.

## **8.2 Installing and Starting the ECB**

The ECB is provided on the ECLS-K:2011 K-1 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 and starting the program.

### **8.2.1 Installing the ECB Program on Your Personal Computer**

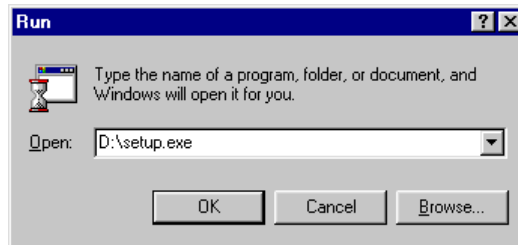
Program installation is initiated by running the Setup.exe file found within the CD-ROM's root directory.



## 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



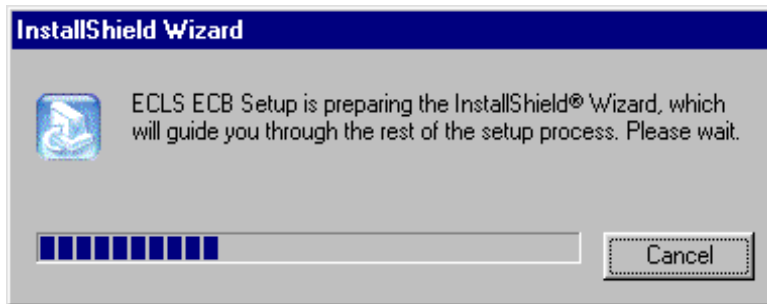
5. Click the OK button to start the installation. You will now see several installation screens, some of which will prompt you for a response.

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.

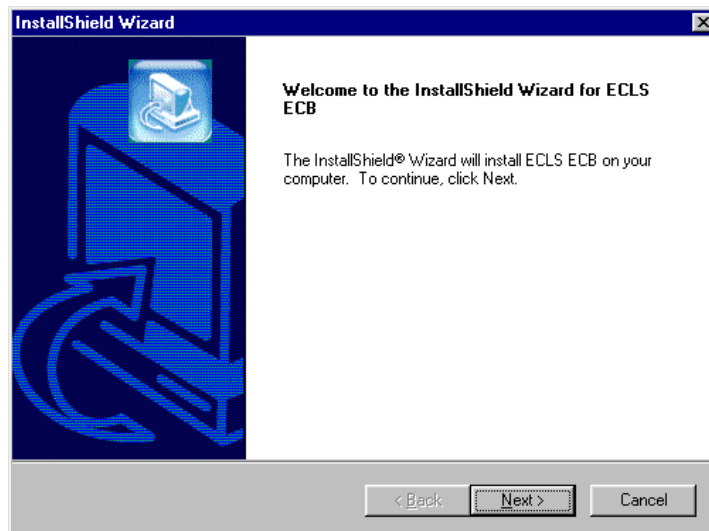
6. The screen shown in exhibit 8-2 indicates that the setup is being prepared.

Exhibit 8-2. InstallShield window



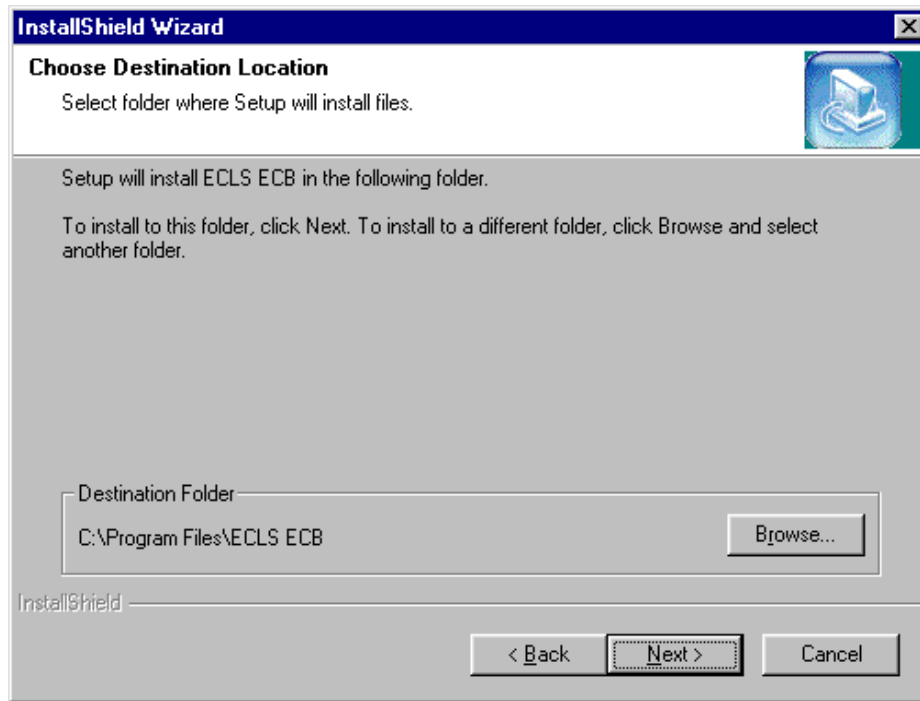
7. You will be prompted to continue with the installation in the Welcome window shown in exhibit 8-3. Click the Next button to continue.

Exhibit 8-3. Welcome window



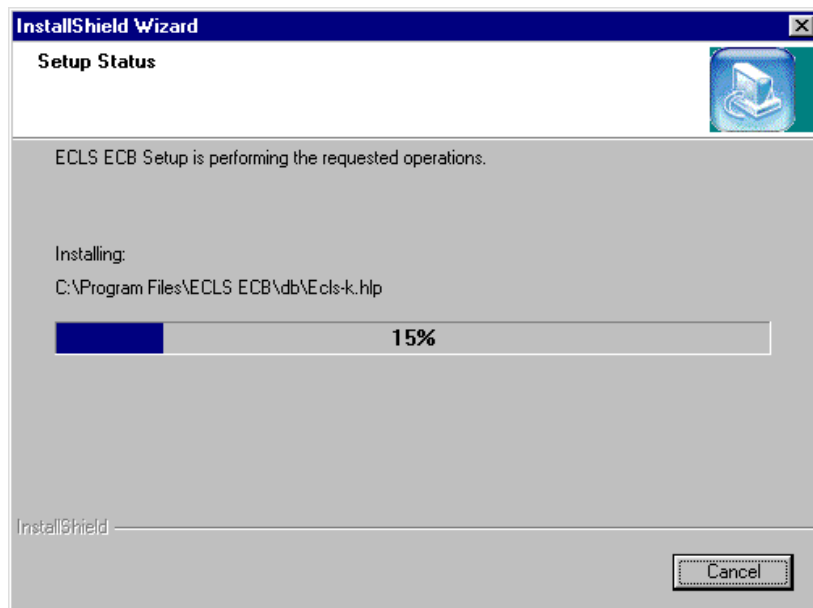
8. When you continue, you will be prompted to choose a destination location for the installation in the window shown in exhibit 8-4. If you wish to change the destination location, click the Browse button to change the directory. Click the Next button when the desired destination folder is shown.

Exhibit 8-4. Choose Destination Location



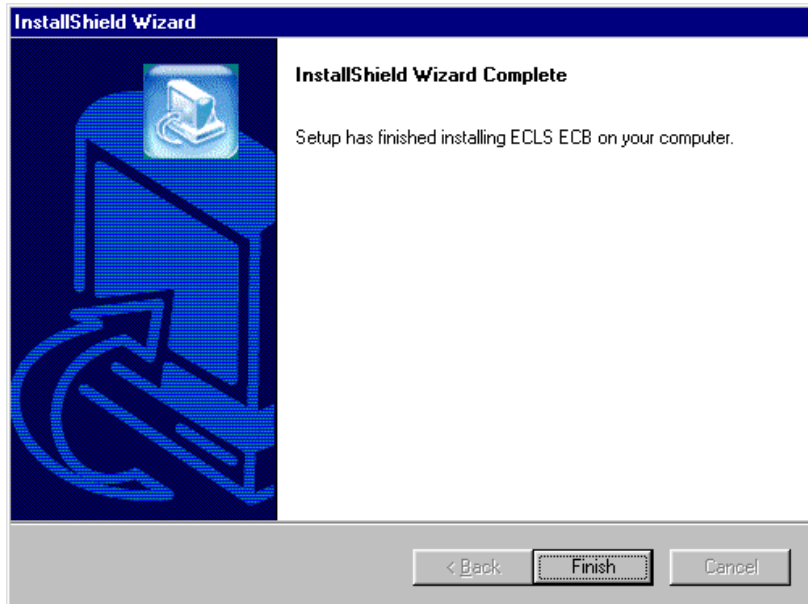
9. Setup will then start installing files. Exhibit 8-5 shows the setup status.

Exhibit 8-5. Setup Status



- 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



- 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.

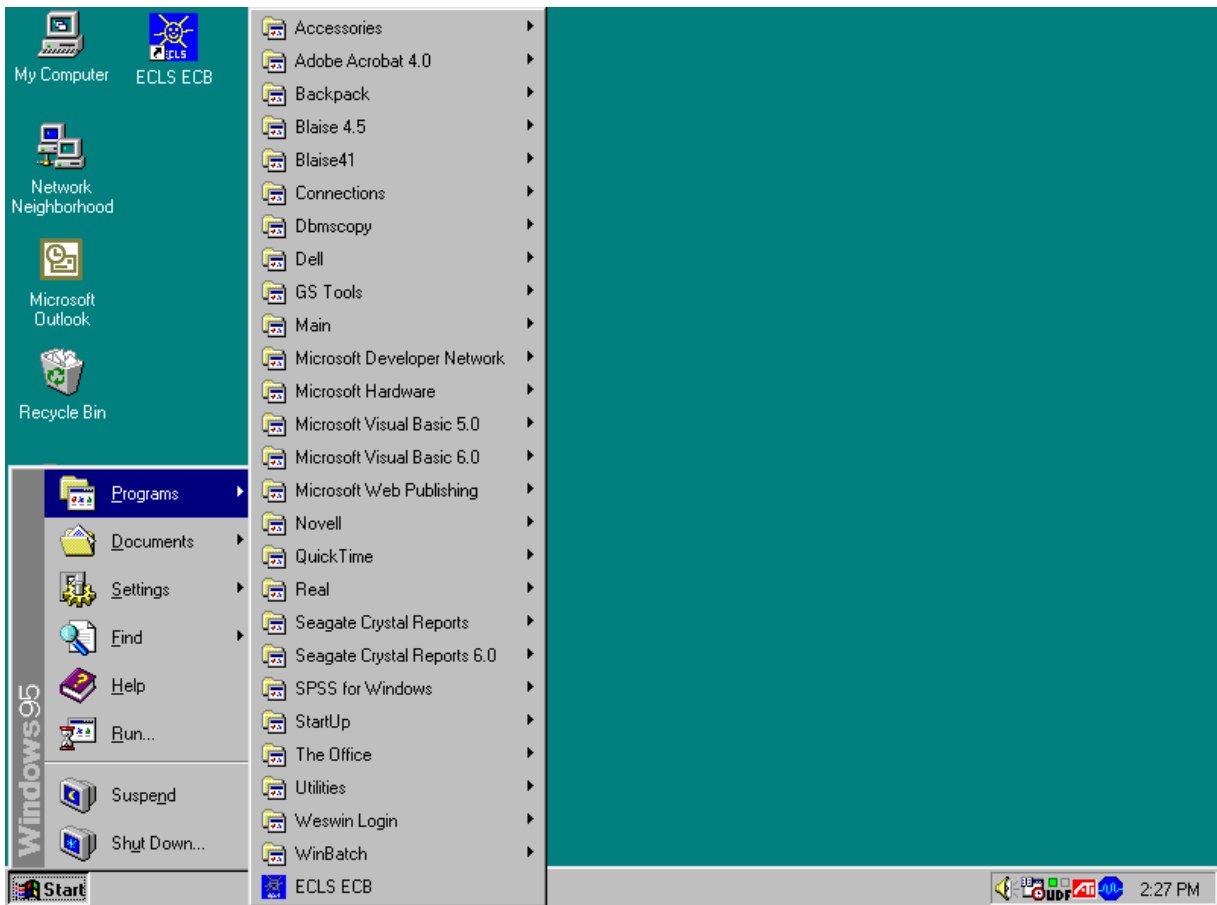
### 8.2.2 How to Start the ECB

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 start the program. In Windows 7, click the Start button, click on All Programs, and click the ECB title to start the program.

Exhibit 8-7a. Desktop icon

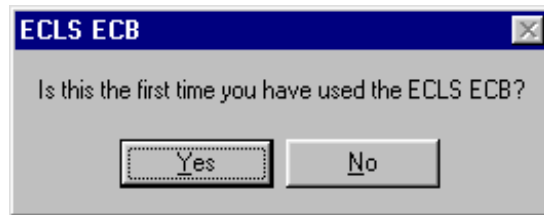


Exhibit 8-7b. Desktop screen—click start



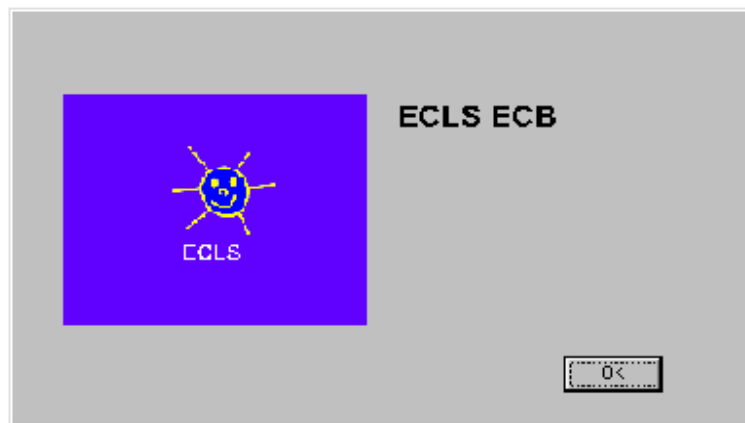
If you are a first-time user of the ECB, exhibit 8-8 will appear and ask if you are a new ECB user.

Exhibit 8-8. First-time user dialog box



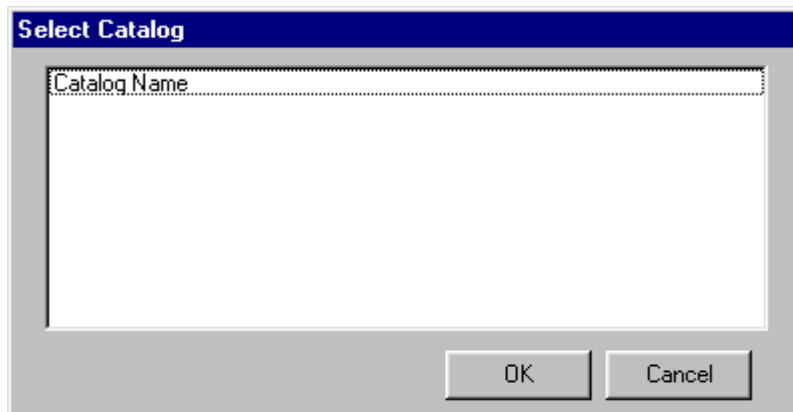
Click Yes if you are a first-time user. The ECB splash screen shown in exhibit 8-9 will appear.

Exhibit 8-9. ECB splash screen



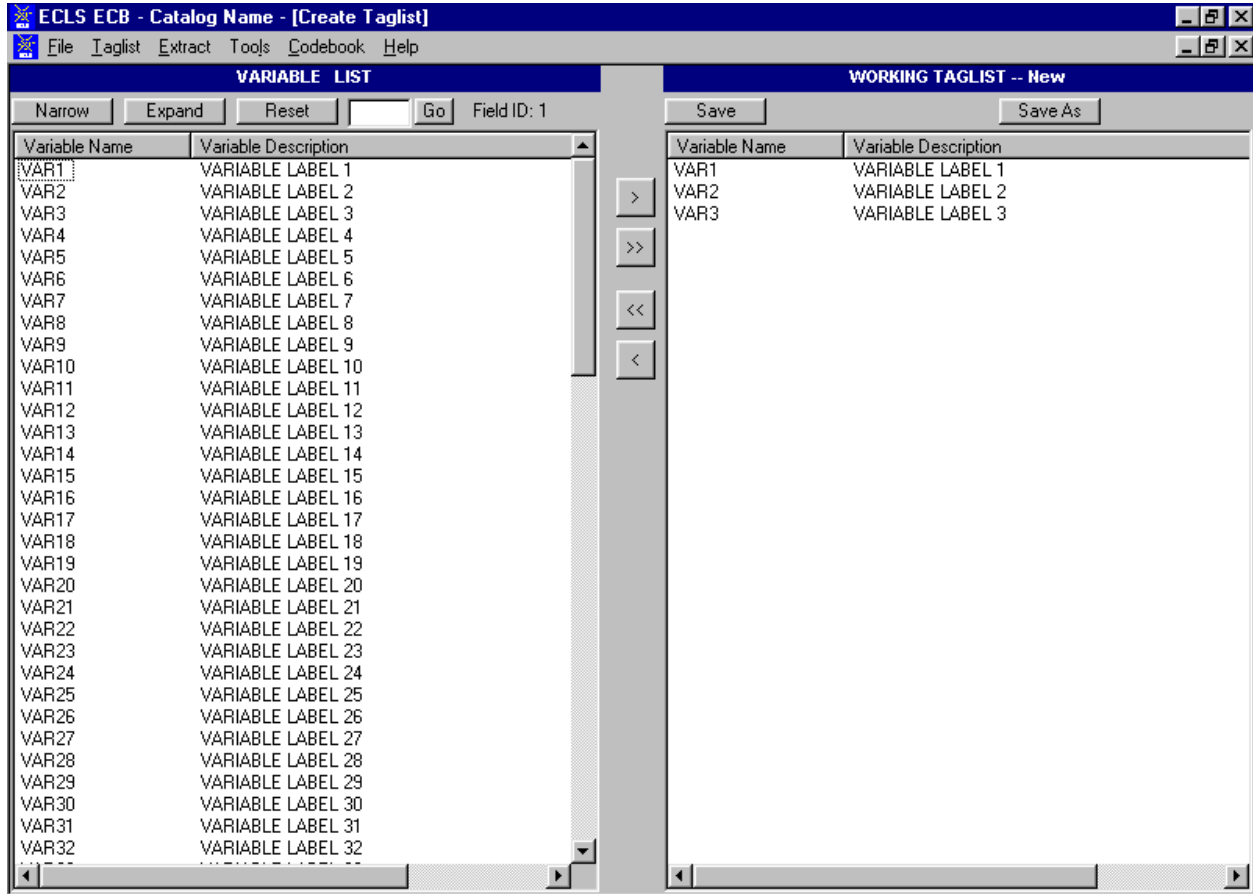
On the Select Catalog screen (exhibit 8-10), highlight the name of the catalog. (The ECLS-K:2011 has only one catalog.)

Exhibit 8-10. Select Catalog screen



Click OK to open the main ECB screen, shown in exhibit 8-11.

Exhibit 8-11. Main ECB screen



You are now ready to use the functions of the ECB.

*This page intentionally left blank.*



## REFERENCES

- Duncan, S. E., and De Avila, E. A. (1998). *preLAS 2000 Cue Picture Book English Form C*. Monterey, CA: CTB/McGraw-Hill Companies, Inc.
- Keys, A., Fidanza, F., Karvonen, M. J., Kimura, N., Taylor, H. L. (1972). Indices of relative weight and obesity. *Journal of Chronic Disease*, 25: 329–343.
- Mather, N., and Woodcock, R. W. (2001). *Examiner's Manual: Woodcock-Johnson III Tests of Achievement*. Itasca, IL: Riverside Publishing.
- Mei, Z., Grummer-Strawn, L., Pietrobelli, A., Goulding, A., Goran, M., and Dietz, W. H. (2002). Validity of body mass index compared with other body-composition screening indexes for the assessment of body fatness in children and adolescents. *American Journal of Clinical Nutrition*, 75(6): 978–985.
- Najarian, M., Tourangeau, K., Nord, C., Wallner-Allen, K., and Leggitt, J. (Forthcoming). *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), First-Grade and Second-Grade Psychometric Report*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- Najarian, M., Tourangeau, K., Nord, C., and Wallner-Allen, K. (Forthcoming). *Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), Kindergarten Psychometric Report*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- Nord, M., and Bickel, G. (2002). *Measuring Children's Food Security in U.S. Households, 1995–99*. Food Assistance and Nutrition Research Report No. FANRR-25. Washington, DC: U.S. Department of Agriculture, Economic Research Service.
- Nord, M., and Hopwood, H. (2007). Recent Advances Provide Improved Tools for Measuring Children's Food Security. *Journal of Nutrition*, 137(3): 533–536.
- Pianta, R. C. (2001). *Student–Teacher Relationship Scale*. Lutz, FL. Psychological Assessment Resources.
- Pianta, R. C., and Steinberg, M. S. (1992). Teacher–Child Relationships and the Process of Adjusting to School. In R. C. Pianta (Ed.) *Beyond the Parent: The Role of Other Adults in Children's Lives* (pp. 61-80). San Francisco: Jossey-Bass.
- Putnam, S. P., and Rothbart, M. K. (2006). Development of short and very short forms of the Children's Behavior Questionnaire. *Journal of Personality Assessment*, 87(1), 103–113.
- Tourangeau, K., Nord, C., Lê, T., Sorongon, A. G., and Najarian, M. (2009). *Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), Combined User's Manual for the ECLS-K Eighth-Grade and K–8 Full Sample Data Files and Electronic Codebooks* (NCES 2009–004). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

- Tourangeau, K., Nord, C., Lê, T., Schocklin, J., Honeycutt, L., Sorongon, A. G., Blaker, L., and Hagedorn, M. C. (Forthcoming). *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), Kindergarten Methodology Report*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- Tourangeau, K., Nord, C., Lê, T., Sorongon, A.G., Hagedorn, M.C., Daly, P., and Najarian, M. (2013). *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). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- U.S. Census Bureau. Current Population Survey. Poverty Thresholds for 2011 by Size of Family and Number of Related Children Under 18 Years Old [Web page]. Retrieved September 3, 2013 from <http://www.census.gov/hhes/www/poverty/data/threshld/index.html>.
- U.S. Census Bureau. (n.d.). *Model-based Small Area Income & Poverty Estimates (SAIPE) for School Districts, Counties, and States* [Web page]. Retrieved May 11, 2012 from <http://www.census.gov/did/www/saipe/>.
- U.S. Centers for Disease Control and Prevention. Growth Charts [Web page]. Retrieved December 6, 2013 from [www.cdc.gov/growthcharts/html\\_charts/wtage.htm](http://www.cdc.gov/growthcharts/html_charts/wtage.htm).
- U.S. Department of Agriculture, Economic Research Service. (2002). *Measuring Children's Food Security in U.S. Households, 1995-99*. Washington, DC: Author.
- U.S. Department of Agriculture, Food and Nutrition Service. (2000). *Guide to Measuring Household Food Security, Revised 2000*. Alexandria, VA: Author.
- U.S. Department of Commerce, Office of Federal Statistical Policy and Planning. (1980). *Standard Occupational Classification Manual*. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Education, National Center for Education Statistics. (2013). *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), Restricted-Use Kindergarten Data File and Electronic Codebook* (NCES 2013-060). CD-ROM. Washington, DC: Author.
- U.S. Department of Education, National Center for Education Statistics. (1999). *Manual for Coding Industries and Occupations*. Appendix to Data File User's Manual, Volume IV, of the National Household Education Survey of 1999 (NCES 2000-077). Washington, DC: Author.
- Woodcock, R. W., McGrew, K. S., and Mather, N. (2001). *Woodcock-Johnson III Tests of Cognitive Abilities*. Itasca, IL: Riverside Publishing.
- Zelazo, P. D. (2006). The Dimensional Change Card Sort (DCCS): A Method of Assessing Executive Function in Children. *Nature Protocols*, 1: 297–301.

## APPENDIX A

### DATA ANOMALIES AND ERRATA

This appendix provides information on data anomalies and errata. 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 additional categories that were added for coding some open-ended 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 for the survey question number, variable name, or keyword in this appendix. For example, an analyst who is interested in information about children's diagnoses of attention deficit hyperactivity disorder (ADHD) could search (1) CHQ125, which is the number of the question in which this information was asked in the parent interview; (2) P4ADHA, which is the name of the variable in which data from CHQ125 about ADHD is stored; and (3) "Attention Deficit Hyperactivity Disorder" or "ADHD."

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**

Spring 2012 Anomalies and Errata  
Spring 2012 Errors in the CAI Programming

**Hard-Copy Questionnaires**

School Administrator Questionnaire (SAQ)

**Field Management System Variables**

**Composite Variable Anomalies, Errata, and Considerations**

**Other (Specify) Variables**

**Parent Interview: Spring 2012 Anomalies and Errata**

- Some households have anomalous parent/guardian relationships. For example, the case with CHILDDID=10013406 has both a biological mother and stepmother in the household, along with a biological father. . Case 10003018 has a stepfather and also a foster mother and foster father (the foster parents are spouse/partners of each other). Case 10010900 has a biological father, biological mother, and another relative who is listed as the married to the biological mother. Case 10005906 has a respondent who is the uncle who is married to the biological mother, and the biological father is also reported to be in the home. Case 10018131 has a biological mother, adoptive father, adoptive mother, and a stepfather. Case 10002360 has a respondent who is the grandmother of the child who lists her spouse/partner as the child's father. Both respondent and spouse/partner are designated as parent figures. Case 10017416 has two sets of grandparents in the household with a biological mother. One set of grandparents is too young to be grandparents and may have other relationships to the child. This does not affect who was selected as the parent figure (the biological mother), but users should be aware that two of the grandparent relationships for this case may not be accurate.
- One case (CHILDDID=10006402) has an unusual age reported for the relationship. Person 4 is a 23-year-old grandfather in FSQ030 (P4AGE\_4).
- There are some cases with persons recorded in the household roster as roster errors FSQ015 (P4REASL\*=6) and persons who are not currently in the household FSQ010 (P4CUR\_\*=2) even though they were never in the household in previous rounds of the study. These persons have other roster variables (e.g., FSQ130 (P4REL\_\*)) set to -1 (not applicable) and were added in error by the interviewer or were the result of a CAPI error. Cases with these characteristics have CHILDDIDs 10014103 (persons 3 and 4), 10001605 (person 6), 10013837 (person 6), 10005279 (person 4), 10017694 (person 4), 10008335 (person 3), 10008937 (person 5), 10009075 (person 6), and 10007811 (person 10).

There are other cases that are not errors that have FSQ010 (P4CUR\_\*) variables set to 2 (not a current household member) for some persons even though they were not in the household in fall or spring kindergarten. These cases had new respondents in fall 2011 that were not previously in the household in the base year of the study and left the household by spring 2012. Cases with these characteristics in spring 2012 are CHILDDIDs 10001634 (person 7), 10001751 (person 3), 10003324 (person 4), 10005279 (person 4), 10007729 (person 3), 10008953 (person 3), 10009075 (person 6), 10013118 (person 5), 10013837 (person 6), 10014017 (person 3), and 10015225 (person 3).<sup>1</sup> In addition, aside from the fall 2011 respondent, no other household members who are present in fall 2011 but leave by spring 2012 are captured in the roster. Please see section 7.5.2.2 for a description of the household roster.

- For one case (CHILDDID=10008937), persons 6 and 7 were in the household in spring 2011, but were not listed as household members on the file. These persons are listed as household members in spring 2012.
- For case 10005679, person 4 is in the fall 2010, spring 2011, and fall 2011 data, but did not appear in the spring 2012 household roster and was not added by the respondent. Therefore, it is unclear whether person 4 is still in the household in spring 2012.
- There is one case (CHILDDID=10007937) that joined the study in fall 2010, but the fall 2010 parent interview data are not on the file because of an error. This case shows person 3 leaving the household in spring 2012, which is accurate, but there are no fall 2010 data showing this person in the household because those data are not in the file. Also, there is one case (CHILDDID=10005961), that did not complete the household roster in fall 2010 and thus the fall 2010 parent interview data are not in the file; however, there were some relationship data collected in the household roster for fall 2011 and those data were carried over to spring 2012. Person 4 was in the household in fall 2010, but left by spring 2012. Similarly, there is a case (CHILDDID=10008803) that did not complete the household roster in spring 2011 and thus the spring 2011 parent interview data are not in the file; however, there were some relationship data collected in the household roster for spring 2011 and those data were carried over to spring 2012.
- There are four cases that have values for a change in the relationship of the respondent to the focal child FSQ121 (P4CHGRESPREL) that should be noted. Specifically, there are two cases (CHILDDID=10000099, 10009577) where the relationship of the respondent to the child appears to have changed (FSQ121 (P4CHGRESPREL)=1), but because of an error either by the interviewer or the respondent, the data do not indicate that the person's relationship changed. There is also one case (10010610) that shows a change in relationship for person 6 from "other relative" to biological father between spring 2011 and spring 2012; however, the relationship was biological father in both rounds. Although there was an interviewer comment in spring 2011 that person 6 was a biological father, because person 6 was coded as an "other relative" in spring 2011, the question about whether there had been a change in relationship FSQ121 (P4CHGRESPREL) was asked in spring 2012. In spring 2012, FSQ121

---

<sup>1</sup> The respondent in spring 2012 for case 10015225 indicated that the fall 2011 respondent had never lived in the household. Because the fall 2011 respondent indicated she was a household member, no changes were made and she left the household in spring 2012.

(P4CHGRESPREL)=1 because the relationship was corrected to biological father during data collection.

- There are also some cases that have values for a change in the relationship of the respondent's spouse to the focal child that should be noted. In case 10008531, the data show a change in relationship for person 5 from FSQ150 (P4DAD\_5)=4 (foster father or male guardian) to FSQ150 (P4DAD\_5)=5 (other male parent or guardian) between spring 2011 and spring 2012; however, the relationship was "other male parent or guardian" in both rounds. The question about a change in relationship is coded as FSQ122 (P4CHGSPSPREL)=2 (no change). In case 10009589, the relationship change question was recorded as FSQ122 (P4CHGSPSPREL)=2 for person 4. There was an interviewer error that suggested a possible problem with this answer, but there is not enough information to update the variable value. There are also cases where P4CHGSPSPREL=1, but the data do not indicate that the person's relationship changed. Although the relationship did not change between rounds, due to respondent or interviewer error, P4CHGSPSPREL was coded 1 (yes, there was a change). These are cases with CHILDDIDs 10001140, 10002377, 10002714, 10003224, 10003933, 10005670, 10008188, 10008727, 10009339, 10009577, 10009936, 10011166, 10013528, 10014205, 10014237, 10014288, 10015929, 10016212, 10016307, 10016701, 10017139, 10006734, 10009894, 10011392, 10012026, 10014194, 10016622, 10000123, 10004678, 10008906, 10009679, 10009935, 10013380, 10017423, 10002237, 10013980, and 10008185.
- Some cases were purposely asked about the parents' country of origin FSQ212 (P4PARCT1 and P4PARCT2) in both spring 2011 and spring 2012 because they had missing information about the age that the parent(s) came to the United States. Although most cases reported the same country of origin at both time points, some cases reported a country that was different.
- There are two cases (CHILDDID=10002294, 10017993) where FSQ212 (P4PARCT2)=1 (United States), but FSQ213 (P4PAREM2) for the age that the person moved to the United States has a valid age. Both cases had answers that were coded as "other" in the parent interview, but indicated the United States. Because the answers were not coded as the United States during the interview, the question about the age moved to the United States was asked.
- One case (CHILDDID=10005679) was asked country of origin questions both in spring 2011 and spring 2012. This case identification number was confused with another case (10014103) in data collection in the base year of the study and this affected some preloaded information. The country of origin for the second parent figure FSQ212 (P4PARCT2) is the same in both spring 2011 and spring 2012, but differs for the first parent figure in FSQ212 (P4PARCT1). Case 10014103 did not have data collected for country of origin, but should have.
- There are two cases (CHILDDID=10003551, 10004836) who reported unusual combinations of bedtime hour HEQ560A (P4BEDTMH) and AM/PM designations in HEQ565 (P4BEDTMAP) (1:10 p.m., 2:08 p.m., respectively). These times were reported in the data.
- There is one case (CHILDDID=10006989) that has a -9 (not ascertained) for the amount of money paid for child care by a relative CCQ096 (P4RAMTCH), a -1 (not

applicable) for the number of hours per week for child care by another relative CCQ110 (P4RHROTH), and a 2 (no) for currently has care from nonrelative CCQ115 (P4NRNOW). Household members were added after the interview (based on interviewer comments), so the path followed in the interview for this item was incorrect.

- There are some cases that have a disability diagnosis for the focal child and have follow-up questions about that diagnosis recorded in variables other than those used for the child's specific diagnosis. In the parent interview, respondents were asked to provide the diagnosis of the child's disability, if applicable, in question CHQ125 (P4LRNDIS-P4OTHDIA). If a diagnosis did not fit one of the categories in the parent interview specifications, the diagnosis was entered as "other." Follow-up questions about age at diagnosis and medication taken for a particular diagnosis (CHQ130-CHQ173) were asked about the diagnosis entered as "other." Later, in coding conducted after the parent interview was completed, some answers in the "other" category were assigned existing codes that were available in the interview (e.g., generalized anxiety disorder, CHQ125 (P4GENANX)), but the follow-up questions about age at diagnosis and medication taken for a particular diagnosis (CHQ130-CHQ173) remain in the questions that go with the "other" category.
- Case 10014762 had interviewer errors in the household roster, and the correct questions were not asked in NRQ. Because of these problems, the question about contact with the biological father NRQ040 (P4BDCNTC)=-9 (not ascertained).

#### **Parent Interview: Spring 2012 Errors in the CAI Programming**

- One case, (CHILDID 10005750) should not be used for analysis. An interviewer error caused all spring 2012 data collected for one parent to be overwritten by another parent from a previous round in a different household. Therefore, the data collected and reported in spring 2012 for this case are not matched to the correct persons in the roster and all parent data are not accurate for this case.
- A problem with the CAI code caused 247 cases to not have the questions about the child's country of origin (INQ300 (P4BTHPLC); INQ310 (P4CNTRYB); INQ320 (P4YRCOME); and INQ330 (P4CITIZN)) asked. These have been set to -9 (not ascertained).
- Some questions about communication issues (CHQ205 (P4PRBART); CHQ206A-H (P4TLKLD, P4TLKSFT, P4CHEW, P4SWALLO, P4STUTER, P4CLEFT, P4ABNRML, P4MALFRM); CHQ210 (P4EVALCO); and CHQ215 (P4CMDIAG)) were asked again in spring 2012 even though the specifications indicate that they could have been skipped because there were data from this section in spring 2011. For cases with data for these items in both spring 2011 and spring 2012, the spring 2012 data could be used for more updated information.
- There were some cases that had education data collected in spring 2012 (PEQ020 (P4HIG\_1\_I); PEQ021 (P4HIS\_1\_I); PEQ020 (P4HIG\_2\_I); PEQ021 (P4HIS\_2\_I)) that also had education data collected in spring 2011. There was a programming issue that resulted in data being reversed between the parents in the household so that education data were collected again for some parents and not collected for those with missing data from spring 2011. The composites for parent education use the most

recently obtained data from spring 2012. Missing data were imputed. In addition, case 10005679 was conducted under the wrong interview number in the base year of the study. Because of this, previously reported education data were not available during the spring 2012 interview, and the education questions were asked again.

- There were 29 males and 8 females who had base-year data, but did not get asked about a change in employment from fall 2010 EMQ010 (P4EMPCHG\_1\_I or P4EMPCHG\_2\_I) because of a roster number comparison issue in CAPI when a person in a roster position above a key parent left the household in the base year.

### Hard-Copy Questionnaires

The hard-copy data were examined for inconsistent reporting across items and unusual values (e.g., total school enrollment (SAQ question A3A (S4ANUMCH\_I)) of less than 100 or more than 900 students). Although there were some inconsistent answers and data that were outside expected ranges, all answers were confirmed as representing the values reported by respondents.

### School Administrator Questionnaire (SAQ): Spring 2012

- In spring 2012, the SAQ-A version of the school administrator questionnaire was given to schools that were new to the study or had not previously completed an SAQ in the spring 2011 kindergarten round. The SAQ-B version of the school administrator questionnaire was given to schools that *had* completed an SAQ in the kindergarten round. In spring 2012, an SAQ-B was fielded in error to 33 schools; the SAQ-A should have been fielded to these schools because the spring 2011 SAQ had been refused. In 21 cases, the SAQ-B was completed and receipted—school identification numbers impacted are listed below.\* The remaining 12 schools either refused the SAQ-B or never returned it.

*	1069	1370	1686	2061	2300
	1108	1421	1741	2119	
	1126	1441	1837	2141	
	1153	1501	1896	2225	
	1294	1664	2020	2261	

- There are many inconsistencies between variables A3A (S4ANUMCH\_I), A3B (S4BNUMCH), A3C (S4CNUMCH), and A9H (S4TOTENR). Many respondents reported inconsistent or anomalous values where the intention of the respondent is unclear. For example, there are instances where school turnover is very high (large numbers of students leaving and entering the school during the school year). In other instances, student enrollment totals do not match between A3A (S4ANUMCH\_I) and A9H (S4TOTENR) or (A3A (S4ANUMCH\_I) + A3B (S4BNUMCH) – A3C (S4CNUMCH)) and A9H (S4TOTENR). While these data have been heavily scrutinized during collection, data users should carefully review these data to attempt to determine anomalies during analysis.



- Data users should be aware that there is no variable available to indicate whether a principal or other administrator completed sections A–G of the SAQ-A or sections A–F of the SAQ-B. Therefore, an assumption that S4RYYEMP and S4RMMEMP apply to non-principals if valid data are reported and S4RYYEMP and S4RMMEMP apply to principals if they equal -9 (not ascertained) cannot be made with confidence. Users should take this into consideration when analyzing these data.

### **Field Management System Variables**

In the base year, F1CLASS and F2CLASS included an indication of whether a kindergarten class was a morning, afternoon, or full-day class. F3CLASS and F4CLASS indicate whether a kindergarten class is part-day or full-day, but do not give the morning or afternoon information.

### **Composite Variable Anomalies, Errata, and Considerations**

Chapter 7 of this manual provides detailed information about the composite variables that were created and included in 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.

- In one case (CHILDID=10001666), the interviewer deleted the male parent figure (a grandparent in a household without parents, recorded as the second parent in the composite variable X4IDP2) in the parent interview and then added him back in with a different age. The data for this case are correct, but users should be aware that there was no real change in the household roster even though the value of X4IDP2 changed from 3 in fall 2010 and spring 2011 to 6 in spring 2012. Because the parent figure was added to the household roster as a new person, the case followed the path in the parent interview for a new parent figure rather than the path that it would have taken if the parent figure was previously in the household. Although some questions that would not have been asked about a parent figure previously in the household were asked about this parent figure (race, ethnicity, country of origin, education, and employment), the answers in spring 2012 match the answers in earlier rounds. For employment questions, there were some changes to job title and duties, so the current data in composite variables X4PAR2SCR\_I and X4PAR2OCC\_I are an update to previous information.
- Three administrators responded to questions about school type in the school administrator questionnaire by checking both public and private options. These cases were investigated and coded appropriately on the composite X4SCTYP.
- A step was missed in the creation of the composite X4RCETH, percent minority students in the school. Values from the school frame should have been assigned when the school did not return a school administrator questionnaire (SAQ). This step was omitted in error. As a result, X4RCETH has more values of -9 (not ascertained) than it should. This variable will be corrected in the kindergarten-to-second grade data file.

- The composite variable for year-round school status (X4YRRND) draws upon both SAQ and school frame variables. Comparing the beginning month (composite X4SCHBMM) to the school ending month (composite X4SCHEMM), there are 61 child IDs associated with schools that have stated they are not year round when the beginning and end months are either 1 month apart or the same month. There are 163 child IDs associated with schools that have stated they are year round when the beginning and end months are 2 or more months apart.
- Some children who were participants in round 3 were not participants in round 4 (198 children). Of this group, 132 have no round 4 teacher ID, and 103 have an unidentified school because the child moved to a nonsampled county or had an assessment result of “not located.” In the composite about whether children changed teachers from fall to spring (X34CHGTCH), it was assumed that these cases changed schools and, therefore, teachers.

### **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.

Exhibit A-1. New response categories: ECLS-K:2011 instruments: School year 2011–12

Item No.	Instrument	Question text	Added new response categories
A20	Teacher questionnaire, spring 2012	Which languages other than English are spoken by one or more children in your class?	<ul style="list-style-type: none"> <li>▪ African language</li> <li>▪ Creole</li> <li>▪ French</li> <li>▪ German</li> <li>▪ Polish</li> <li>▪ Portuguese</li> <li>▪ Russian</li> <li>▪ Hmong</li> </ul>
A25	Teacher questionnaire, spring 2012	Which languages other than English are spoken by you or any other teacher or aide to the ELL children in your class for instructional support or conversation?	<ul style="list-style-type: none"> <li>▪ African language</li> <li>▪ Creole</li> <li>▪ French</li> <li>▪ German</li> <li>▪ Polish</li> <li>▪ Portuguese</li> <li>▪ Russian</li> <li>▪ Hmong</li> </ul>
A23	Kindergarten teacher questionnaire, spring 2012	Which languages other than English are spoken by one or more children in your class?	<ul style="list-style-type: none"> <li>▪ African language</li> <li>▪ Creole</li> <li>▪ French</li> <li>▪ German</li> <li>▪ Portuguese</li> <li>▪ Russian</li> </ul>
A28	Kindergarten teacher questionnaire, spring 2012	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 style="list-style-type: none"> <li>▪ African language</li> <li>▪ Creole</li> <li>▪ French</li> </ul>
5	Teacher questionnaire, (child level) spring 2012	Why has the child fallen behind in school work? MARK ALL THAT APPLY.	<ul style="list-style-type: none"> <li>▪ ELL/Language issues</li> <li>▪ Easily distracted/lack of focus or attention (excludes “ADD” and “ADHD”)</li> </ul>
5	Kindergarten teacher questionnaire, (child level) spring 2012	Why has the child fallen behind in school work? MARK ALL THAT APPLY.	<ul style="list-style-type: none"> <li>▪ ELL/Language issues</li> <li>▪ Easily distracted/lack of focus or attention (excludes “ADD” and “ADHD”)</li> </ul>
CHQ125	Parent interview, spring 2011	What was the diagnosis or were the diagnoses?	<ul style="list-style-type: none"> <li>▪ Oppositional defiant disorder</li> </ul>
CHQ246	Parent interview, spring 2012	What was the diagnosis?	<ul style="list-style-type: none"> <li>▪ No problem/Awaiting evaluation</li> </ul>
CHQ301	Parent interview, spring 2012	What was the diagnosis?	<ul style="list-style-type: none"> <li>▪ No problem/Awaiting evaluation</li> </ul>
CMQ690	Parent interview, fall 2011	Was this interview conducted in English, Spanish, or another language?	<ul style="list-style-type: none"> <li>▪ Chinese</li> <li>▪ Vietnamese</li> </ul>

See note at end of exhibit.

Exhibit A-1. New response categories: ECLS-K:2011 instruments: School year 2011–12—Continued

Item No.	Instrument	Question text	Added new response categories
CMQ690	Parent interview spring 2012	Was this interview conducted in English, Spanish, Chinese, or another language?	<ul style="list-style-type: none"> <li>▪ Vietnamese</li> </ul>
PLQ040	Parent interview, spring 2012	What languages other than English are spoken in your home?	<ul style="list-style-type: none"> <li>▪ Creole</li> </ul>
PLQ060	Parent interview, spring 2012	What languages other than English are spoken in your home?	<ul style="list-style-type: none"> <li>▪ Creole</li> </ul>
PAQ140	Parent interview, spring 2012	What is your current housing situation? Do you...	<ul style="list-style-type: none"> <li>▪ Lives with relative or in dwelling owned by a relative/may or may not contribute to expenses or contribution unknown</li> </ul>

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), fall 2011 and spring 2012.

**APPENDIX B**  
**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.

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.

Exhibit 1. ECLS-K:2011 masked variables, fall kindergarten child assessment

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

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.

Exhibit 2. ECLS-K:2011 masked variables, spring kindergarten child assessment

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

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.



Exhibit 3. ECLS-K:2011 masked variables, fall kindergarten parent interview

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 confidentiality
P1SCHOOL	P1 PIQ060 SCHOOL ASSIGNED OR SELECTED	Data recoded for respondent confidentiality
P1ATTSCH	P1 PIQ065 DOES CHILD ATTEND SCHOOL	Data suppressed for respondent confidentiality
P1HRSSCH	P1 PIQ066 HOURS IN SCHOOL PER WEEK	Data suppressed for respondent confidentiality
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 confidentiality
P1FLPNO	P1 PLQ040 OTHER LANGUAGE - FILIPINO	Data suppressed for respondent confidentiality
P1FRENCH	P1 PLQ040 OTHER LANGUAGE - FRENCH	Data suppressed for respondent confidentiality
P1GERMAN	P1 PLQ040 OTHER LANGUAGE - GERMAN	Data suppressed for respondent confidentiality
P1GREEK	P1 PLQ040 OTHER LANGUAGE - GREEK	Data suppressed for respondent confidentiality
P1ITALN	P1 PLQ040 OTHER LANGUAGE - ITALIAN	Data suppressed for respondent confidentiality
P1JAPNES	P1 PLQ040 OTHER LANGUAGE - JAPANESE	Data suppressed for respondent confidentiality
P1KOREAN	P1 PLQ040 OTHER LANGUAGE - KOREAN	Data suppressed for respondent confidentiality
P1POLISH	P1 PLQ040 OTHER LANGUAGE - POLISH	Data suppressed for respondent confidentiality
P1PORTUG	P1 PLQ040 OTHER LANGUAGE - PORTUGUESE	Data suppressed for respondent confidentiality
P1VIETNM	P1 PLQ040 OTHER LANGUAGE - VIETNAMESE	Data suppressed for respondent confidentiality
P1FARSI	P1 PLQ040 OTHER LANGUAGE - FARSI	Data suppressed for respondent confidentiality
P1HMONG	P1 PLQ040 OTHER LANGUAGE - HMONG	Data suppressed for respondent confidentiality
P1OTHLNG	P1 PLQ040 OTHER LANGUAGE - OTHER	Data suppressed for respondent confidentiality
P1NATVAM	P1 PLQ040 OTHER LANGUAGE - NATIVE AMER	Data suppressed for respondent confidentiality
P1SIGNLG	P1 PLQ040 OTHER LANGUAGE - SIGN LANG	Data suppressed for respondent confidentiality
P1MIDEST_R	P1 PLQ040 OTHER LANG - MIDDLE EASTRN-REV	Data suppressed for respondent confidentiality
P1WSTEUR_R	P1 PLQ040 OTHER LANG - WESTRN EUROPN-REV	Data suppressed for respondent confidentiality
P1SOASIA	P1 PLQ040 OTHER LANGUAGE - SOUTHEAST ASN	Data suppressed for respondent confidentiality
P1PACISL	P1 PLQ040 OTHER LANGUAGE - PACIFIC ISLDR	Data suppressed for respondent confidentiality
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 confidentiality
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

See note at end of exhibit.

Exhibit 3. ECLS-K:2011 masked variables, fall kindergarten parent interview—Continued

Variable name	Variable description	Comments
P1RELC18	P1 CCQ066 MOST CARE NOW REL OLDER THN 18	Data suppressed for respondent confidentiality
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 confidentiality
P1RPDTNF	P1 CCQ093B REL CARE PAID BY TANF	Data suppressed for respondent confidentiality
P1RPDSOC	P1 CCQ093C REL CARE PAID BY SOC SERVC	Data suppressed for respondent confidentiality
P1RPDEMP	P1 CCQ093D REL CARE PAID BY EMPLOYER	Data suppressed for respondent confidentiality
P1RPDOTH	P1 CCQ093E REL CARE PAID BY OTHER	Data suppressed for respondent confidentiality
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 confidentiality
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 confidentiality
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 confidentiality
P1NPDTNF	P1 CCQ193B NR CARE PAID BY TANF	Data suppressed for respondent confidentiality
P1NPDSOC	P1 CCQ193C NR CARE PAID BY SOC SERVC	Data suppressed for respondent confidentiality
P1NPDEMP	P1 CCQ193D NR CARE PAID EMPLOYER	Data suppressed for respondent confidentiality
P1NPDOTH	P1 CCQ193E NR CARE PAID BY OTHER	Data suppressed for respondent confidentiality
P1NAMTCH	P1 CCQ196 AMT PD NONREL CARE	Data recoded for respondent confidentiality
P1NHROTH	P1 CCQ205 # HRS/WK OTHER NONREL CARE	Data suppressed for respondent confidentiality
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 confidentiality
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 confidentiality
P1CPDSOC	P1 CCQ370C CNTR CARE PD BY SOC SVC	Data suppressed for respondent confidentiality
P1CPDEMP	P1 CCQ370D CENTER CARE PAID BY JOB	Data suppressed for respondent confidentiality
P1CPDOTH	P1 CCQ370E CNTR CARE PAID BY OTHER	Data suppressed for respondent confidentiality
P1CAMTCH	P1 CCQ373 AMT PD CENTER CARE	Data recoded for respondent confidentiality
P1CHROTH	P1 CCQ375 #HRS/WK AT OTHER PROGRAMS	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 3. ECLS-K:2011 masked variables, fall kindergarten parent interview—Continued

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 confidentiality
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 confidentiality
P1WEIGH3	P1 CHQ015 MORE THAN 3 POUNDS AT BIRTH	Data suppressed for respondent confidentiality
P1MORE10	P1 CHQ016 WEIGHT MORE THAN 10 LBS	Data suppressed for respondent confidentiality
P1ERLYUN	P1 CHQ030A HOW PREMATURE - UNIT	Data suppressed for respondent confidentiality
P1EARLY	P1 CHQ030BC HOW PREMATURE - NUMBER	Data suppressed for respondent confidentiality
P1BRFDUN	P1 CHQ032A AGE QUIT BREASTFEED UNITS	Data suppressed for respondent confidentiality
P1BRFDNM	P1 CHQ032B AGE QUIT BREASTFEED NUMBER	Data suppressed for respondent confidentiality
P1BRFDMO	P1 CHQ033 # MONTHS QUIT BREASTFEED	Data suppressed for respondent confidentiality
P1MULTIP	P1 CHQ035 CHILD PART OF MULTIPLE BIRTH	Data recoded for respondent confidentiality
P1MULSIB	P1 CHQ070 MULTIPLE SIBLING STATUS	Data suppressed for respondent confidentiality
P1FEBRIL	P1 CHQ090 COMPLICATION 1 - FEBRILE	Data suppressed for respondent confidentiality
P1ABRUPT	P1 CHQ090 COMPLICATION 4 - ABRUPTIO PLAC	Data suppressed for respondent confidentiality
P1PLCNTP	P1 CHQ090 COMPLICATION 5 - PLACENTA PREV	Data suppressed for respondent confidentiality
P1BLEED	P1 CHQ090 COMPLICATION 6 - OTH BLEEDING	Data suppressed for respondent confidentiality
P1SEIZE	P1 CHQ090 COMPLICATION 7 - SEIZURES	Data suppressed for respondent confidentiality
P1FAST	P1 CHQ090 COMPLICATION 8 - FAST LABOR	Data suppressed for respondent confidentiality
P1PROLPS	P1 CHQ090 COMPLICATION 13 - CORD PROLAPS	Data suppressed for respondent confidentiality
P1ANESTH	P1 CHQ090 COMPLICATION 14 - ANESTH COMP	Data suppressed for respondent confidentiality
P1U2WAIT	P1 CHQ110A EAR TRTMT BEF 2 - WATCH/WAIT	Data suppressed for respondent confidentiality
P1U2DECN	P1 CHQ110B EAR TRTMT BEF 2 - DECONGEST	Data suppressed for respondent confidentiality
P1U2NODR	P1 CHQ110G EAR TRTMT BEF 2 - NO DR VISIT	Data suppressed for respondent confidentiality
P1U2OTHR	P1 CHQ110H EAR TRTMT BEF 2 - OTHER	Data suppressed for respondent confidentiality
P1U2FLSH	P1 CHQ110I EAR TRTMT BEF 2 - FLUSH/IRRIG	Data suppressed for respondent confidentiality
P1U2TONS	P1 CHQ110J EAR TRTMT BEF 2-TONSILS/ADNOID	Data suppressed for respondent confidentiality
P1U2CHIR	P1 CHQ110K EAR TRTMT BEF 2-CHIROPRACTOR	Data suppressed for respondent confidentiality
P1U2ETLO	P1 CHQ120 EAR TUBES IN WHICH EAR BEF 2	Data suppressed for respondent confidentiality
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 confidentiality
P1O2DECN	P1 CHQ140B EAR TRTMT 2 TO SCH-DECONGEST	Data suppressed for respondent confidentiality
P1O2NODR	P1 CHQ140G EAR TRTMT 2 TO SCH-NO DR VIST	Data suppressed for respondent confidentiality
P1O2NOIN	P1 CHQ140H NO INFECTIONS SINCE 2ND BDAY	Data suppressed for respondent confidentiality
P1O2OTHR	P1 CHQ140I EAR TRTMT 2 TO SCH-OTHER	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 3. ECLS-K:2011 masked variables, fall kindergarten parent interview—Continued

Variable name	Variable description	Comments
P1O2FLSH	P1 CHQ140J EAR TRTMT 2 TO SCH-FLUSH/IRRIG	Data suppressed for respondent confidentiality
P1O2TONS	P1 CHQ140K EAR TRTMT BEF 2-TONSILS/ADNOID	Data suppressed for respondent confidentiality
P1O2CHIR	P1 CHQ140L EAR TRTMT BEF 2-CHIROPRACTOR	Data suppressed for respondent confidentiality
P1O2WHER	P1 CHQ150 EAR TUBES WHICH EAR 2 TO SCH	Data suppressed for respondent confidentiality
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 confidentiality
P1MRRYYR	P1 MHQ025B YEAR WHEN RESP-BIOPAR MARRIED	Data recoded for respondent confidentiality
P1LIVTOG	P1 MHQ030 RESBIOMOM-RESBIODAD LIVE TGTHR	Data suppressed for respondent confidentiality
P1LIVMO	P1 MHQ035A MNTH RESBIOMOM-DAD START COHAB	Data suppressed for respondent confidentiality
P1LIVYR	P1 MHQ035B YR RESBIOMOM-DAD START COHAB	Data suppressed for respondent confidentiality
P1CURMAM	P1 MHQ050A MONTH CURRENT MARRIAGE STARTED	Data suppressed for respondent confidentiality
P1CURMAY	P1 MHQ050B YEAR CURRENT MARRIAGE STARTED	Data suppressed for respondent confidentiality
P1CURLVM	P1 MHQ055A MNTH RESP-NONBIOPAR STRT COHAB	Data suppressed for respondent confidentiality
P1CURLVY	P1 MHQ055B YR RESP-NONBIOPAR START COHAB	Data suppressed for respondent confidentiality
P1BIOMRY	P1 MHQ060 CHILDS BIOPARENTS ARE MARRIED	Data suppressed for respondent confidentiality
P1BIOMRM	P1 MHQ065A MONTH WHEN BIOPARENTS MARRIED	Data suppressed for respondent confidentiality
P1BIOMYR	P1 MHQ065B YEAR WHEN BIOPARENTS MARRIED	Data suppressed for respondent confidentiality
P1BIOLIV	P1 MHQ070 BIOPARS TOGETHER LIKE MARRIED	Data suppressed for respondent confidentiality
P1BIOLVM	P1 MHQ075A MNTH BIOPARS BEGAN LIVE TGTHR	Data suppressed for respondent confidentiality
P1BIOLVY	P1 MHQ075B YEAR BIOPARS BEGAN LIVE TGTHR	Data suppressed for respondent confidentiality
P1RESBIO	P1 MHQ080 RESP AND BIOPAR ARE MARRIED	Data suppressed for respondent confidentiality
P1RESWHM	P1 MHQ085A MNTH RESP & BIOPAR GOT MARRIED	Data suppressed for respondent confidentiality
P1RESWHY	P1 MHQ085B YEAR RESP & BIOPAR GOT MARRIED	Data suppressed for respondent confidentiality
P1RESLIV	P1 MHQ090 RESP-BIOPAR TOGETHER LIKE MARR	Data suppressed for respondent confidentiality
P1RESLVM	P1 MHQ095A MNTH RESP-RESBIOPAR STRT COHAB	Data suppressed for respondent confidentiality
P1RESLVY	P1 MHQ095B YR RESP-RESBIOPAR START COHAB	Data suppressed for respondent confidentiality
P1BIOLE1	P1 MHQ096 RESPONDENT LEGALLY MARRIED	Data suppressed for respondent confidentiality
P1WHNMAM	P1 MHQ097A MONTH RESPS MARRIAGE BEGAN	Data suppressed for respondent confidentiality
P1WHNMAY	P1 MHQ097B YEAR RESPS MARRIAGE BEGAN	Data suppressed for respondent confidentiality
P1RESLVO	P1 MHQ098 RESP LIVING W/ SOMEONE	Data suppressed for respondent confidentiality
P1LVOTM	P1 MHQ099A MONTH RESP START COHAB	Data suppressed for respondent confidentiality
P1LVOTY	P1 MHQ099B YEAR RESP START COHAB	Data suppressed for respondent confidentiality
P1BIOMYM	P1 MHQ105A MONTH RESPS MARRIAGE BEGAN	Data suppressed for respondent confidentiality
P1BIOMYY	P1 MHQ105B YEAR RESPS MARRIAGE BEGAN	Data suppressed for respondent confidentiality
P1RESOTH	P1 MHQ110 RESP LIVING W/ SOMEONE	Data suppressed for respondent confidentiality
P1OTHWHM	P1 MHQ115A MONTH RESP START COHAB	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 3. ECLS-K:2011 masked variables, fall kindergarten parent interview—Continued

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 confidentiality
P1NRMOLV	P1 HRQ030 NONRES BIOLOGICAL MOM LIVING	Data suppressed for respondent confidentiality
P1BIOMBM	P1 HRQ040A NONRES BIOMOM MONTH OF BIRTH	Data suppressed for respondent confidentiality
P1BIOMBY	P1 HRQ040B NONRES BIOMOMS YEAR OF BIRTH	Data suppressed for respondent confidentiality
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 confidentiality
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 confidentiality
P1CHMOMY	P1 HRQ120B YR BIOMOM-CHD LAST LIVED TGTHR	Data suppressed for respondent confidentiality
P1BIDLIV	P1 HRQ030 NONRES BIOLOGICAL DAD LIVING	Data suppressed for respondent confidentiality
P1BIODBM	P1 HRQ040A NONRES BIODAD MONTH OF BIRTH	Data suppressed for respondent confidentiality
P1BIODBY	P1 HRQ040B NONRES BIODADS YEAR OF BIRTH	Data suppressed for respondent confidentiality
P1BIODAG	P1 HRQ060 NONRESIDENT BIODADS AGE	Data suppressed for respondent confidentiality
P1BIODDM	P1 HRQ080A MONTH WHEN CHDS BIODAD DIED	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 3. ECLS-K:2011 masked variables, fall kindergarten parent interview—Continued

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 confidentiality
P1ADMCON	P1 NRQ040 TIME FROM LAST CONTACT-ADPMOM	Data suppressed for respondent confidentiality
P1AMDYWK	P1 NRQ050 #DAYS CHD SAW ADPMOM LAST 4WKS	Data suppressed for respondent confidentiality
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 confidentiality
P1ADDCON	P1 NRQ040 TIME FROM LAST CONTACT-ADPDAD	Data suppressed for respondent confidentiality
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
P1OTHADAD	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
P1WKL_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

See note at end of exhibit.

Exhibit 3. ECLS-K:2011 masked variables, fall kindergarten parent interview—Continued

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

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.

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview

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 confidentiality
P2BTHPLC	P2 INQ300 CHILD BORN IN THIS COUNTRY	Data suppressed for respondent confidentiality
P2CNTRYB	P2 INQ310 COUNTRY OF BIRTH	Data suppressed for respondent confidentiality
P2YRCOME	P2 INQ320 YEAR CAME TO UNITED STATES	Data suppressed for respondent confidentiality
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 confidentiality
P2WEIGH3	P2 SPQ080 MORE THAN 3 POUNDS AT BIRTH	Data suppressed for respondent confidentiality
P2MORE10	P2 SPQ085 WEIGHT MORE THAN 10 LBS	Data suppressed for respondent confidentiality
P2EARLY	P2 SPQ100 HOW PREMATURE - NUMBER	Data suppressed for respondent confidentiality
P2ERLYUN	P2 SPQ105 HOW PREMATURE - UNIT	Data suppressed for respondent confidentiality
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 confidentiality
P2REASL2	P2 FSQ015 REASON LEFT - PERS 2	Data suppressed for respondent confidentiality
P2REASL3	P2 FSQ015 REASON LEFT - PERS 3	Data suppressed for respondent confidentiality
P2REASL4	P2 FSQ015 REASON LEFT - PERS 4	Data suppressed for respondent confidentiality
P2REASL5	P2 FSQ015 REASON LEFT - PERS 5	Data suppressed for respondent confidentiality
P2REASL6	P2 FSQ015 REASON LEFT - PERS 6	Data suppressed for respondent confidentiality
P2REASL7	P2 FSQ015 REASON LEFT - PERS 7	Data suppressed for respondent confidentiality
P2REASL8	P2 FSQ015 REASON LEFT - PERS 8	Data suppressed for respondent confidentiality
P2REASL9	P2 FSQ015 REASON LEFT - PERS 9	Data suppressed for respondent confidentiality
P2REASL10	P2 FSQ015 REASON LEFT - PERS 10	Data suppressed for respondent confidentiality
P2REASL11	P2 FSQ015 REASON LEFT - PERS 11	Data suppressed for respondent confidentiality
P2REASL12	P2 FSQ015 REASON LEFT - PERS 12	Data suppressed for respondent confidentiality
P2REASL13	P2 FSQ015 REASON LEFT - PERS 13	Data suppressed for respondent confidentiality
P2REASL14	P2 FSQ015 REASON LEFT - PERS 14	Data suppressed for respondent confidentiality
P2REASL15	P2 FSQ015 REASON LEFT - PERS 15	Data suppressed for respondent confidentiality
P2REASL16	P2 FSQ015 REASON LEFT - PERS 16	Data suppressed for respondent confidentiality
P2REASL17	P2 FSQ015 REASON LEFT - PERS 17	Data suppressed for respondent confidentiality
P2REASL18	P2 FSQ015 REASON LEFT - PERS 18	Data suppressed for respondent confidentiality
P2REASL19	P2 FSQ015 REASON LEFT - PERS 19	Data suppressed for respondent confidentiality
P2REASL20	P2 FSQ015 REASON LEFT - PERS 20	Data suppressed for respondent confidentiality
P2REASL21	P2 FSQ015 REASON LEFT - PERS 21	Data suppressed for respondent confidentiality
P2REASL22	P2 FSQ015 REASON LEFT - PERS 22	Data suppressed for respondent confidentiality
P2REASL23	P2 FSQ015 REASON LEFT - PERS 23	Data suppressed for respondent confidentiality
P2REASL24	P2 FSQ015 REASON LEFT - PERS 24	Data suppressed for respondent confidentiality

See note at end of exhibit.



Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview—Continued

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 confidentiality
P2AMDYWK	P2 NRQ050 #DAYS CHD SAW ADPMOM LAST 4WKS	Data suppressed for respondent confidentiality
P2AMDAYS	P2 NRQ120 # DAYS SCHLD TO SEE ADPMOM	Data suppressed for respondent confidentiality
P2AMNITE	P2 NRQ121 # NIGHTS STAYED WITH ADPMOM	Data suppressed for respondent confidentiality
P2AMMISS	P2 NRQ122 MISSED SCHLD VISIT W/ ADPMOM	Data suppressed for respondent confidentiality
P2AMPHON	P2 NRQ123 # TALKED ON PHONE W/ADPMOM	Data suppressed for respondent confidentiality
P2AMRELS	P2 NRQ124 DESCRIBE RELATION W/ADPMOM	Data suppressed for respondent confidentiality
P2AMOPNH	P2 NRQ130 ADPMOM ATTEND SCH OPEN HOUSE	Data suppressed for respondent confidentiality
P2AMCONF	P2 NRQ135 ADPMOM ATTENDED PARENT-TCH MTG	Data suppressed for respondent confidentiality
P2AMACTV	P2 NRQ140 ADPMOM ATTENDED SCH ACTIVITY	Data suppressed for respondent confidentiality
P2AMVOL	P2 NRQ145 ADPMOM VOLUNTEERED AT SCHOOL	Data suppressed for respondent confidentiality
P2AMLVMN	P2 NRQ250 ADPMOM LIVES	Data suppressed for respondent confidentiality
P2AMLVST	P2 NRQ251 ADPMOM LIVES IN SAME STATE	Data suppressed for respondent confidentiality
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 confidentiality
P2ADDCON	P2 NRQ040 TIME FROM LAST CONTACT-ADPDAD	Data suppressed for respondent confidentiality
P2ADDYWK	P2 NRQ050 #DAYS CHD SAW ADPDAD LAST 4WKS	Data suppressed for respondent confidentiality
P2ADDAYS	P2 NRQ120 # DAYS SCHLD TO SEE ADPDAD	Data suppressed for respondent confidentiality
P2ADNITE	P2 NRQ121 # NIGHTS STAYED WITH ADPDAD	Data suppressed for respondent confidentiality
P2ADMISS	P2 NRQ122 MISSED SCHLD VISIT W/ ADPDAD	Data suppressed for respondent confidentiality
P2ADPHON	P2 NRQ123 # TALKED ON PHONE W/ADPDAD	Data suppressed for respondent confidentiality
P2ADRELS	P2 NRQ124 DESCRIBE RELATION W/ADPDAD	Data suppressed for respondent confidentiality
P2ADOPNH	P2 NRQ130 ADPDAD ATTEND SCH OPEN HOUSE	Data suppressed for respondent confidentiality
P2ADCONF	P2 NRQ135 ADPDAD ATTENDED PARENT-TCH MTG	Data suppressed for respondent confidentiality

See note at end of exhibit.

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-INFRLM 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
P2DEVPLY	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

See note at end of exhibit.

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview—Continued

Variable name	Variable description	Comments
P2EMODIS	P2 CHQ125 DIAGNOSIS - SER EMOTION DISTURB	Data suppressed for respondent confidentiality
P2TRMBRI	P2 CHQ125 DIAGNOSIS - TRAUMATIC BRAIN INJ	Data suppressed for respondent confidentiality
P2PNCDIS	P2 CHQ125 DIAGNOSIS - PANIC DISORDER	Data suppressed for respondent confidentiality
P2SEPANX	P2 CHQ125 DIAGNOSIS - SEPARATION ANXIETY	Data suppressed for respondent confidentiality
P2OCD	P2 CHQ125 DIAGNOSIS - OCD	Data suppressed for respondent confidentiality
P2GENANX	P2 CHQ125 DIAGNOSIS - GEN ANXIETY DIS	Data suppressed for respondent confidentiality
P2OTHANX	P2 CHQ125 DIAGNOSIS - OTHER ANXIETY DIS	Data suppressed for respondent confidentiality
P2BIPOLR	P2 CHQ125 DIAGNOSIS - BIPOLAR DISORDER	Data suppressed for respondent confidentiality
P2DEPRESS	P2 CHQ125 DIAGNOSIS - DEPRESSION	Data suppressed for respondent confidentiality
P2SENSDF	P2 CHQ125 DIAGNOSIS - SENSORY DEFICIT	Data suppressed for respondent confidentiality
P2AUTSPC	P2 CHQ126 TYPE OF AUTISM SPECRM DISORDER	Data suppressed for respondent confidentiality
P2AGELD	P2 CHQ130 AGE AT 1ST DIAGNS-LRN DISABLTY	Data suppressed for respondent confidentiality
P2AGELDU	P2 CHQ131 AGE 1ST DIAGNS-LRN DISBL UNIT	Data suppressed for respondent confidentiality
P2AGELDM	P2 CHQ135A AGE 1ST DIAGNS-LRN DIS MONTH	Data suppressed for respondent confidentiality
P2AGELDY	P2 CHQ135B AGE 1ST DIAGNS-LRN DIS YEAR	Data suppressed for respondent confidentiality
P2MEDLD	P2 CHQ140 TAKE PRESCRIPTION FOR LRN DIS	Data suppressed for respondent confidentiality
P2MEDLDL	P2 CHQ173 HOW LONG TAKING MED - LRN DIS	Data suppressed for respondent confidentiality
P2AGEADD	P2 CHQ130 AGE AT 1ST DIAGNS-ADD	Data suppressed for respondent confidentiality
P2AGEADU	P2 CHQ131 AGE 1ST DIAGNS-ADD UNIT	Data suppressed for respondent confidentiality
P2AGEADM	P2 CHQ135A AGE 1ST DIAGNS-ADD MONTH	Data suppressed for respondent confidentiality
P2AGEADY	P2 CHQ135B AGE 1ST DIAGNS-ADD YEAR	Data suppressed for respondent confidentiality
P2MEDAD	P2 CHQ140 TAKING PRESCRIPTION FOR ADD	Data suppressed for respondent confidentiality
P2RITALN1	P2 CHQ145A TAKING RITALIN-ADD	Data suppressed for respondent confidentiality
P2ADDRAL1	P2 CHQ145B TAKING ADDERALL-ADD	Data suppressed for respondent confidentiality
P2DEXEDR1	P2 CHQ145C TAKING DEXEDRINE-ADD	Data suppressed for respondent confidentiality
P2METADT1	P2 CHQ145D TAKING METADATE-ADD	Data suppressed for respondent confidentiality
P2CONCER1	P2 CHQ145E TAKING CONCERTA-ADD	Data suppressed for respondent confidentiality
P2STRTRR1	P2 CHQ145F TAKING STRATERRA-ADD	Data suppressed for respondent confidentiality
P2ADMDOT1	P2 CHQ145G TAKING SOMETHING ELSE-ADD	Data suppressed for respondent confidentiality
P2ADLTYP1	P2 CHQ150 TYPE OF ADDERALL-ADD	Data suppressed for respondent confidentiality
P2LOCMED1	P2 CHQ155 LOCATION TAKING RX-ADD	Data suppressed for respondent confidentiality
P2AGEAHD	P2 CHQ130 AGE AT 1ST DIAGNS-ADHD	Data suppressed for respondent confidentiality
P2AGEHDU	P2 CHQ131 AGE 1ST DIAGNS-ADHD UNIT	Data suppressed for respondent confidentiality
P2AGEHDM	P2 CHQ135A AGE 1ST DIAGNS-ADHD MONTH	Data suppressed for respondent confidentiality
P2AGEHDY	P2 CHQ135B AGE 1ST DIAGNS-ADHD YEAR	Data suppressed for respondent confidentiality
P2MEDHD	P2 CHQ140 TAKE PRESCRIPTION FOR ADHD	Data suppressed for respondent confidentiality
P2RITALN2	P2 CHQ145A TAKING RITALIN-ADHD	Data suppressed for respondent confidentiality
P2ADDRAL2	P2 CHQ145B TAKING ADDERALL-ADHD	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 4. ECLS-K:2011 masked variables, spring kindergarten parent interview—Continued

Variable name	Variable description	Comments
P2DEXEDR2	P2 CHQ145C TAKING DEXEDRINE-ADHD	Data suppressed for respondent confidentiality
P2METADT2	P2 CHQ145D TAKING METADATE-ADHD	Data suppressed for respondent confidentiality
P2CONCER2	P2 CHQ145E TAKING CONCERTA-ADHD	Data suppressed for respondent confidentiality
P2STRTRR2	P2 CHQ145F TAKING STRATERRA-ADHD	Data suppressed for respondent confidentiality
P2ADMDOT2	P2 CHQ145G TAKING SOMETHING ELSE-ADHD	Data suppressed for respondent confidentiality
P2ADLTYP2	P2 CHQ150 TYPE OF ADDERALL-ADHD	Data suppressed for respondent confidentiality
P2LOCMED2	P2 CHQ155 LOCATION TAKING RX-ADHD	Data suppressed for respondent confidentiality
P2MEDLAD	P2 CHQ173 HOW LONG TAKING MED - ADD	Data suppressed for respondent confidentiality
P2MEDLHD	P2 CHQ173 HOW LONG TAKING MED - ADHD	Data suppressed for respondent confidentiality
P2AGEDV	P2 CHQ130 AGE AT 1ST DIAGNS-DEV DELAY	Data suppressed for respondent confidentiality
P2AGEDVU	P2 CHQ131 AGE 1ST DIAGNS-DEV DEL UNIT	Data suppressed for respondent confidentiality
P2AGEDVM	P2 CHQ135A AGE 1ST DIAGNS-DEV DEL MONTH	Data suppressed for respondent confidentiality
P2AGEDVY	P2 CHQ135B AGE 1ST DIAGNS-DEV DEL YEAR	Data suppressed for respondent confidentiality
P2MEDDV	P2 CHQ140 TAKE PRESCRIPTION FOR DEV DEL	Data suppressed for respondent confidentiality
P2MEDDVL	P2 CHQ173 HOW LONG TAKING MED - DEV DEL	Data suppressed for respondent confidentiality
P2AGEAU	P2 CHQ130 AGE AT 1ST DIAGNS-AUTISM	Data suppressed for respondent confidentiality
P2AGEAUU	P2 CHQ131 AGE 1ST DIAGNS-AUTISM UNIT	Data suppressed for respondent confidentiality
P2AGEAUM	P2 CHQ135A AGE 1ST DIAGNS-AUTISM MONTH	Data suppressed for respondent confidentiality
P2AGEAUY	P2 CHQ135B AGE 1ST DIAGNS-AUTISM YEAR	Data suppressed for respondent confidentiality
P2MEDAU	P2 CHQ140 TAKE PRESCRIPTION FOR AUTISM	Data suppressed for respondent confidentiality
P2MEDAUL	P2 CHQ173 HOW LONG TAKING MED - AUTISM	Data suppressed for respondent confidentiality
P2AGEDL	P2 CHQ130 AGE AT 1ST DIAGNS-DYSLXIA	Data suppressed for respondent confidentiality
P2AGEDLU	P2 CHQ131 AGE 1ST DIAGNS-DYSLXIA UNIT	Data suppressed for respondent confidentiality
P2AGEDLM	P2 CHQ135A AGE 1ST DIAGNS-DYSLXIA MONTH	Data suppressed for respondent confidentiality
P2AGEDLY	P2 CHQ135B AGE 1ST DIAGNS-DYSLXIA YEAR	Data suppressed for respondent confidentiality
P2MEDDL	P2 CHQ140 TAKE PRESCRIPTION FOR DYSLXIA	Data suppressed for respondent confidentiality
P2MEDDLL	P2 CHQ173 HOW LONG TAKING MED - DYSLXIA	Data suppressed for respondent confidentiality
P2AGEDC	P2 CHQ130 AGE AT 1ST DIAGNS-DYSCALCULIA	Data suppressed for respondent confidentiality
P2AGEDCU	P2 CHQ131 AGE 1ST DIAGNS-DYSCLC UNIT	Data suppressed for respondent confidentiality
P2AGEDCM	P2 CHQ135A AGE 1ST DIAGNS-DYSCLC MONTH	Data suppressed for respondent confidentiality
P2AGEDCY	P2 CHQ135B AGE 1ST DIAGNS-DYSCLC YEAR	Data suppressed for respondent confidentiality
P2MEDDC	P2 CHQ140 TAKE PRESCRIPTION FOR DYSCLC	Data suppressed for respondent confidentiality
P2MEDDCL	P2 CHQ173 HOW LONG TAKING MED - DYSCLC	Data suppressed for respondent confidentiality
P2AGECD	P2 CHQ130 AGE AT 1ST DIAGNS-COGN DIS/MR	Data suppressed for respondent confidentiality
P2AGECDU	P2 CHQ131 AGE 1ST DIAGNS-COG/MR UNIT	Data suppressed for respondent confidentiality
P2AGECDM	P2 CHQ135A AGE 1ST DIAGNS-COG/MR MONTH	Data suppressed for respondent confidentiality
P2AGECDY	P2 CHQ135B AGE 1ST DIAGNS-COG/MR YEAR	Data suppressed for respondent confidentiality
P2MEDCD	P2 CHQ140 TAKE PRESCRIPTION FOR COG/MR	Data suppressed for respondent confidentiality

See note at end of exhibit.

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 confidentiality
P2AGEOR	P2 CHQ130 AGE AT 1ST DIAGNS-ORTHO IMPAIR	Data suppressed for respondent confidentiality
P2AGEORU	P2 CHQ131 AGE 1ST DIAGNS-ORTHO UNIT	Data suppressed for respondent confidentiality
P2AGEORM	P2 CHQ135A AGE 1ST DIAGNS-ORTHO MONTH	Data suppressed for respondent confidentiality
P2AGEORY	P2 CHQ135B AGE 1ST DIAGNS-ORTHO YEAR	Data suppressed for respondent confidentiality
P2MEDOR	P2 CHQ140 TAKE PRESCRIPTION FOR ORTHO	Data suppressed for respondent confidentiality
P2MEDORL	P2 CHQ173 HOW LONG TAKING MED - ORTHO	Data suppressed for respondent confidentiality
P2AGEEM	P2 CHQ130 AGE AT 1ST DIAGNS-EMOT DISTRB	Data suppressed for respondent confidentiality
P2AGEEMU	P2 CHQ131 AGE 1ST DIAGNS-EMOT UNIT	Data suppressed for respondent confidentiality
P2AGEEMM	P2 CHQ135A AGE 1ST DIAGNS-EMOT MONTH	Data suppressed for respondent confidentiality
P2AGEEMY	P2 CHQ135B AGE 1ST DIAGNS-EMOT YEAR	Data suppressed for respondent confidentiality
P2MEDEM	P2 CHQ140 TAKE PRESCRIPTION FOR EMOT	Data suppressed for respondent confidentiality
P2MEDEML	P2 CHQ173 HOW LONG TAKING MED - EMOT	Data suppressed for respondent confidentiality
P2AGEBR	P2 CHQ130 AGE AT 1ST DIAGNS-BRAIN INJRY	Data suppressed for respondent confidentiality
P2AGEBRU	P2 CHQ131 AGE 1ST DIAGNS-BRAIN UNIT	Data suppressed for respondent confidentiality
P2AGEBRM	P2 CHQ135A AGE 1ST DIAGNS-BRAIN MONTH	Data suppressed for respondent confidentiality
P2AGEBRY	P2 CHQ135B AGE 1ST DIAGNS-BRAIN YEAR	Data suppressed for respondent confidentiality
P2MEDBR	P2 CHQ140 TAKE PRESCRIPTION FOR BRAIN	Data suppressed for respondent confidentiality
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 confidentiality
P2AGEPCU	P2 CHQ131 AGE 1ST DIAGNS-PANIC UNIT	Data suppressed for respondent confidentiality
P2AGEPCM	P2 CHQ135A AGE 1ST DIAGNS-PANIC MONTH	Data suppressed for respondent confidentiality
P2AGEPCY	P2 CHQ135B AGE 1ST DIAGNS-PANIC YEAR	Data suppressed for respondent confidentiality
P2MEDPC	P2 CHQ140 TAKE PRESCRIPTION FOR PANIC	Data suppressed for respondent confidentiality
P2MEDPCL	P2 CHQ173 HOW LONG TAKING MED - PANIC	Data suppressed for respondent confidentiality
P2AGESA	P2 CHQ130 AGE AT 1ST DIAGNS-SEP ANXTY	Data suppressed for respondent confidentiality
P2AGESAU	P2 CHQ131 AGE 1ST DIAGNS-SEP ANX UNIT	Data suppressed for respondent confidentiality
P2AGESAM	P2 CHQ135A AGE 1ST DIAGNS-SEP ANX MONTH	Data suppressed for respondent confidentiality
P2AGESAY	P2 CHQ135B AGE 1ST DIAGNS-SEP ANX YEAR	Data suppressed for respondent confidentiality
P2MEDSA	P2 CHQ140 TAKE PRESCRIPTION FOR SEP ANX	Data suppressed for respondent confidentiality
P2MEDSAL	P2 CHQ173 HOW LONG TAKING MED - SEP ANX	Data suppressed for respondent confidentiality
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 confidentiality
P2AGEOCY	P2 CHQ135B AGE 1ST DIAGNS-OCD YEAR	Data suppressed for respondent confidentiality
P2MEDOC	P2 CHQ140 TAKE PRESCRIPTION FOR OCD	Data suppressed for respondent confidentiality
P2MEDOCL	P2 CHQ173 HOW LONG TAKING MED - OCD	Data suppressed for respondent confidentiality
P2AGEGA	P2 CHQ130 AGE AT 1ST DIAGNS-GAD	Data suppressed for respondent confidentiality

See note at end of exhibit.

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
P2MEDOTL	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

See note at end of exhibit.

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 confidentiality
P2CLDFRM	P2 CHQ246 HEARING DIAGNOSIS-CANAL DEFORM	Data suppressed for respondent confidentiality
P2EARSCK	P2 CHQ246 HEARING DIAGNOSIS-EAR INFECTN	Data suppressed for respondent confidentiality
P2FLDNER	P2 CHQ246 HEARING DIAGNOSIS-FLUID IN EAR	Data suppressed for respondent confidentiality
P2EARDRM	P2 CHQ246 HEARING DIAGNOSIS-EAR DRUM PRB	Data suppressed for respondent confidentiality
P2ILLNES	P2 CHQ246 HEARING DIAGNOSIS-ILLNESS	Data suppressed for respondent confidentiality
P2CMV	P2 CHQ246 HEARING DIAGNOSIS-CMV	Data suppressed for respondent confidentiality
P2OTOTXC	P2 CHQ246 HEARING DIAGNOSIS-OTOTOXIC	Data suppressed for respondent confidentiality
P2NOISE	P2 CHQ246 HEARING DIAGNOSIS-NOISE EXP	Data suppressed for respondent confidentiality
P2GENES	P2 CHQ246 HEARING DIAGNOSIS-GENETIC	Data suppressed for respondent confidentiality
P2HDINJY	P2 CHQ246 HEARING DIAGNOSIS-HEAD INJURY	Data suppressed for respondent confidentiality
P2SURGRY	P2 CHQ246 HEARING DIAGNOSIS-SURGERY	Data suppressed for respondent confidentiality
P2NRVDF	P2 CHQ246 HEARING DIAGNOSIS-NERVE DEAF	Data suppressed for respondent confidentiality
P2CAPDIS	P2 CHQ246 HEARING DIAGNOSIS-CAP DISORDER	Data suppressed for respondent confidentiality
P2DEAF	P2 CHQ246 HEARING DIAGNOSIS-DEAF	Data suppressed for respondent confidentiality
P2HROTHR	P2 CHQ246 HEARING DIAGNOSIS-OTHER	Data suppressed for respondent confidentiality
P2HRLSDK	P2 CHQ246 HEARING DIAGNOSIS-CAUSE UNKNWN	Data suppressed for respondent confidentiality
P2AGHCM1	P2 CHQ250B AGE 1ST DIAGNS-COMMUN MO	Data suppressed for respondent confidentiality
P2AGHCY1	P2 CHQ250C AGE 1ST DIAGNS-COMMUN YR	Data suppressed for respondent confidentiality
P2DTHCM1	P2 CHQ255A L1 COMMUN DIAG DATE - MONTH	Data suppressed for respondent confidentiality
P2DTHCY1	P2 CHQ255B L1 COMMUN DIAG DATE - YEAR	Data suppressed for respondent confidentiality
P2AGHCU2	P2 CHQ250A AGE 1ST DIAGNS-HEARING UNT	Data suppressed for respondent confidentiality
P2AGHCM2	P2 CHQ250B AGE 1ST DIAGNS-HEARING MO	Data suppressed for respondent confidentiality
P2AGHCY2	P2 CHQ250C AGE 1ST DIAGNS-HEARING YR	Data suppressed for respondent confidentiality
P2DTHCM2	P2 CHQ255A L2 HEARING DIAG DATE - MONTH	Data suppressed for respondent confidentiality
P2DTHCY2	P2 CHQ255B L2 HEARING DIAG DATE - YEAR	Data suppressed for respondent confidentiality
P2EVHAID	P2 CHQ256 EVER WORN HEARING AID	Data suppressed for respondent confidentiality
P21REHAU	P2 CHQ257A 1ST RECOMMEND HEARING AID - UNIT	Data suppressed for respondent confidentiality
P21REHAM	P2 CHQ257B 1ST RECOMMEND HEARING AID - MONTH	Data suppressed for respondent confidentiality
P21REHAY	P2 CHQ257C 1ST RECOMMEND HEARING AID - YEAR	Data suppressed for respondent confidentiality
P2AIDSCH	P2 CHQ258 HOW OFTEN HEAR AID IN SCHOOL	Data suppressed for respondent confidentiality
P2AIDWHS	P2 CHQ259 HEAR WHISPER IN QUIET RM W/AID	Data suppressed for respondent confidentiality
P2AIDREG	P2 CHQ260 HEAR NORMAL IN QUIET RM W/AID	Data suppressed for respondent confidentiality
P2AIDSHT	P2 CHQ261 HEAR SHOUT IN QUIET RM W/AID	Data suppressed for respondent confidentiality
P2AIDEAR	P2 CHQ262 HEAR SHOUT INTO EAR W/AID	Data suppressed for respondent confidentiality
P2DRREHA	P2 CHQ263 DOCTOR RECOMMEND HEAR AID	Data suppressed for respondent confidentiality

See note at end of exhibit.

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 INSTRUCTION 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

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.



Exhibit 5. ECLS-K:2011 masked variables, fall kindergarten teacher-level teacher questionnaire

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 confidentiality
A1PREGK	A1 A4A TCH REGULAR 1-YR KINDERGARTEN-PM	Data suppressed for respondent confidentiality
A1A2YRK1	A1 A4B TEACHES 1ST YR OF 2-YR K-AM	Data suppressed for respondent confidentiality
A1D2YRK1	A1 A4B TEACHES 1ST YR OF 2-YR K-AD	Data suppressed for respondent confidentiality
A1ATRNK	A1 A4D TCH TRANSITIONAL KINDERGARTEN-AM	Data suppressed for respondent confidentiality
A1PTRNK	A1 A4D TCH TRANSITIONAL KINDERGARTEN-PM	Data suppressed for respondent confidentiality
A1DTRNK	A1 A4D TCH TRANSITIONAL KINDERGARTEN-AD	Data suppressed for respondent confidentiality
A1DPR1ST	A1 A4E TEACHES PRE-1ST GRADE AFTER K-AD	Data suppressed for respondent confidentiality
A1AUNGR	A1 A4F TEACHES UNGRADED CLASS-AM	Data suppressed for respondent confidentiality
A1PUNGR	A1 A4F TEACHES UNGRADED CLASS-PM	Data suppressed for respondent confidentiality
A1DUNGR	A1 A4F TEACHES UNGRADED CLASS-AD	Data suppressed for respondent confidentiality
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 confidentiality
A1DSPCED	A1 A4H TEACHES SPECIAL ED CLASS-AD	Data suppressed for respondent confidentiality
A1ATPREK	A1 A6A MULTIGRADE HAS PREKINDERGARTEN-AM	Data suppressed for respondent confidentiality
A1PTPREK	A1 A6A MULTIGRADE HAS PREKINDERGARTEN-PM	Data suppressed for respondent confidentiality
A1DTPREK	A1 A6A MULTIGRADE HAS PREKINDERGARTEN-AD	Data suppressed for respondent confidentiality
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 confidentiality
A1DTTRNK	A1 A6B MULTIGRADE HAS TRANSITIONAL K-AD	Data suppressed for respondent confidentiality
A1ATREGK	A1 A6C MULTIGRADE HAS REGULAR K-AM	Data suppressed for respondent confidentiality
A1PTREGK	A1 A6C MULTIGRADE HAS REGULAR K-PM	Data suppressed for respondent confidentiality
A1DTREGK	A1 A6C MULTIGRADE HAS REGULAR K-AD	Data suppressed for respondent confidentiality
A1ATPRE1	A1 A6D MULTIGRADE HAS PRE-1ST GR-AM	Data suppressed for respondent confidentiality
A1PTPRE1	A1 A6D MULTIGRADE HAS PRE-1ST GR-PM	Data suppressed for respondent confidentiality
A1DTPRE1	A1 A6D MULTIGRADE HAS PRE-1ST GR-AD	Data suppressed for respondent confidentiality
A1AT1ST	A1 A6E MULTIGRADE HAS 1ST GR -AM	Data suppressed for respondent confidentiality
A1PT1ST	A1 A6E MULTIGRADE HAS 1ST GR -PM	Data suppressed for respondent confidentiality
A1DT1ST	A1 A6E MULTIGRADE HAS 1ST GR-AD	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 5. ECLS-K:2011 masked variables, fall kindergarten teacher-level teacher questionnaire—  
Continued

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

See note at end of exhibit.

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 confidentiality
A1PMULTR	A1 A8G # TWO OR MORE RACES-PM	Data suppressed for respondent confidentiality
A1DMULTR	A1 A8G # TWO OR MORE RACES-AD	Data suppressed for respondent confidentiality
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 confidentiality
A1PBOYS	A1 A9 NUMBER OF BOYS IN CLASS-PM	Data suppressed for respondent confidentiality
A1DBOYS	A1 A9 NUMBER OF BOYS IN CLASS-AD	Data suppressed for respondent confidentiality
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 confidentiality
A1PFRNIN	A1 A19C FRENCH USED FOR INSTRUCTION-PM	Data suppressed for respondent confidentiality
A1DFRNIN	A1 A19C FRENCH USED FOR INSTRUCTION-AD	Data suppressed for respondent confidentiality
A1AVTNIN	A1 A19D VIETNAMESE USED FOR INSTRUCT-AM	Data suppressed for respondent confidentiality
A1PVTNIN	A1 A19D VIETNAMESE USED FOR INSTRUCT-PM	Data suppressed for respondent confidentiality
A1DVTNIN	A1 A19D VIETNAMESE USED FOR INSTRUCT-AD	Data suppressed for respondent confidentiality
A1ACHNIN	A1 A19E CHINESE LANG USED FOR INSTRCT-AM	Data suppressed for respondent confidentiality
A1PCHNIN	A1 A19E CHINESE LANG USED FOR INSTRCT-PM	Data suppressed for respondent confidentiality
A1DCHNIN	A1 A19E CHINESE LANG USED FOR INSTRCT-AD	Data suppressed for respondent confidentiality
A1AJPNIN	A1 A19F JAPANESE USED FOR INSTRUCTION-AM	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 5. ECLS-K:2011 masked variables, fall kindergarten teacher-level teacher questionnaire—  
Continued

Variable name	Variable description	Comments
A1PJPIN	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
A1BK SARB	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
A1ANOELL	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

See note at end of exhibit.

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
A1DELOU	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
A1PLGINS	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
A1DVTNM	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
A1DTCNS	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

See note at end of exhibit.

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
A1ERLYCT	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

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.

Exhibit 6. ECLS-K:2011 masked variables, spring kindergarten teacher-level teacher questionnaire

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 confidentiality
A2PIMPAI	A2 A6A SPEECH/LANG IMPAIRMENTS-PM	Data suppressed for respondent confidentiality
A2DIMPAI	A2 A6A SPEECH/LANG IMPAIRMENTS-AD	Data suppressed for respondent confidentiality
A2ALRNDI	A2 A6B LEARNING DISABILITIES-AM	Data suppressed for respondent confidentiality
A2PLRNDI	A2 A6B LEARNING DISABILITIES-PM	Data suppressed for respondent confidentiality
A2DLRNDI	A2 A6B LEARNING DISABILITIES-AD	Data suppressed for respondent confidentiality
A2AEMODST	A2 A6C EMOTIONAL DISTURBANCE-AM	Data suppressed for respondent confidentiality
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 confidentiality
A2PDELAY	A2 A6E DEVELOPMENTAL DELAY-PM	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 6. ECLS-K:2011 masked variables, spring kindergarten teacher-level teacher questionnaire—Continued

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 confidentiality
A2DHEAR	A2 A6G HEARING IMPAIRMENTS-AD	Data suppressed for respondent confidentiality
A2AORTHO	A2 A6H ORTHOPEDIC IMPAIRMENTS-AM	Data suppressed for respondent confidentiality
A2PORTHO	A2 A6H ORTHOPEDIC IMPAIRMENTS-PM	Data suppressed for respondent confidentiality
A2DORTHO	A2 A6H ORTHOPEDIC IMPAIRMENTS-AD	Data suppressed for respondent confidentiality
A2AOTHER	A2 A6I OTHER HEALTH IMPAIRMENTS-AM	Data suppressed for respondent confidentiality
A2POTHER	A2 A6I OTHER HEALTH IMPAIRMENTS-PM	Data suppressed for respondent confidentiality
A2DOTHER	A2 A6I OTHER HEALTH IMPAIRMENTS-AD	Data suppressed for respondent confidentiality
A2AAUTSM	A2 A6J AUTISM-AM	Data suppressed for respondent confidentiality
A2PAUTSM	A2 A6J AUTISM-PM	Data suppressed for respondent confidentiality
A2DAUTSM	A2 A6J AUTISM-AD	Data suppressed for respondent confidentiality
A2ATRAUM	A2 A6K TRAUMATIC BRAIN INJURY-AM	Data suppressed for respondent confidentiality
A2PTRAUM	A2 A6K TRAUMATIC BRAIN INJURY-PM	Data suppressed for respondent confidentiality
A2DTRAUM	A2 A6K TRAUMATIC BRAIN INJURY-AD	Data suppressed for respondent confidentiality
A2ADFBLD	A2 A6L DEAF-BLINDNESS-AM	Data suppressed for respondent confidentiality
A2PDFBLD	A2 A6L DEAF-BLINDNESS-PM	Data suppressed for respondent confidentiality
A2DDFBLD	A2 A6L DEAF-BLINDNESS-AD	Data suppressed for respondent confidentiality
A2AMULTI	A2 A6M MULTIPLE DISABILITIES-AM	Data suppressed for respondent confidentiality
A2PMULTI	A2 A6M MULTIPLE DISABILITIES-PM	Data suppressed for respondent confidentiality
A2DMULTI	A2 A6M MULTIPLE DISABILITIES-AD	Data suppressed for respondent confidentiality
A2AOTDIS	A2 A6N OTHER DISABILITIES-AM	Data suppressed for respondent confidentiality
A2POTDIS	A2 A6N OTHER DISABILITIES-PM	Data suppressed for respondent confidentiality
A2DOTDIS	A2 A6N OTHER DISABILITIES-AD	Data suppressed for respondent confidentiality
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

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.



Exhibit 7. ECLS-K:2011 masked variables, spring kindergarten supplemental teacher questionnaire

Variable name	Variable description	Comments
B2TGEND	B2 Q1 TEACHER'S GENDER	Data suppressed for respondent confidentiality
B2YRBORN	B2 Q2 TEACHER'S YEAR OF BIRTH	Data recoded for respondent confidentiality
B2HISP	B2 Q3 HISPANIC/LATINO (ANY RACE)	Data suppressed for respondent confidentiality
B2AMINAN	B2 Q4 AMER IND/ALASKA NAT	Data suppressed for respondent confidentiality
B2ASIAN	B2 Q4 ASIAN	Data suppressed for respondent confidentiality
B2BLACK	B2 Q4 BLACK	Data suppressed for respondent confidentiality
B2HAWPI	B2 Q4 NATIVE HAWAIIAN/PAC ISL	Data suppressed for respondent confidentiality
B2WHITE	B2 Q4 WHITE	Data suppressed for respondent confidentiality
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 confidentiality
B2YRSKIN	B2 C7B YRS TEACHER TAUGHT KINDERGARTEN	Data suppressed for respondent confidentiality
B2YRSFST	B2 Q7C YRS TEACHER TAUGHT FIRST GRADE	Data suppressed for respondent confidentiality
B2YRS2T5	B2 Q7D YRS TEACHER TAUGHT GRADE 2 TO 5	Data suppressed for respondent confidentiality
B2YRS6PL	B2 Q7E YRS TEACHER TAUGHT GRADE 6 OR UP	Data suppressed for respondent confidentiality
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 confidentiality
B2DEGNON	B2 C12E UNDERGRAD/NON ED MAJOR	Data suppressed for respondent confidentiality
B2GRDERL	B2 C13A GRAD DEG/EARLY CHILDHOOD ED	Data suppressed for respondent confidentiality
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 confidentiality
B2ESLCT	B2 C17D CERTIFICATION: ENG AS SECOND LNG	Data suppressed for respondent confidentiality
B2OTHCRT	B2 C17E CERTIFICATION: OTHER	Data suppressed for respondent confidentiality

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.

Exhibit 8. ECLS-K:2011 masked variables, spring kindergarten child-level 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

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.

Exhibit 9. ECLS-K:2011 masked variables, spring kindergarten before- and after-school care questionnaires

Variable name	Variable description	Comments
R2SRVMLS	R2 Q3 PROG SERVES MEALS OR SNACKS	Data suppressed for respondent confidentiality
R2DOBY	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
V2DOBY	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
Y2TXNUM	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 EMPLOY	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

See note at end of exhibit.

Exhibit 9. ECLS-K:2011 masked variables, spring kindergarten before- and after-school care questionnaires—Continued

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

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.

Exhibit 10. ECLS-K:2011 masked variables, spring kindergarten school administrator questionnaire

Variable name	Variable description	Comments
S2NUMDAY	S2 A1 NUMBER OF DAYS MUST ATTEND	Data recoded for respondent confidentiality
S2SYRSM	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

See note at end of exhibit.

Exhibit 10. ECLS-K:2011 masked variables, spring kindergarten school administrator questionnaire—  
Continued

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 recorded for respondent confidentiality
S2BUSSED	S2 A8B PERCENT BUSSED TO INTEGRATE	Data recorded for respondent confidentiality
S2OUTSID	S2 A8C PERCENT SENT W/SPECIAL NEED	Data recorded for respondent confidentiality
S2PUBSOC	S2 A8E PCT ATTEND UNDER PUB SCH CHOICE	Data recorded for respondent confidentiality
S2KINTOT	S2 A9 TOT ENROLLED IN KINDERGARTEN	Data recorded for respondent confidentiality
S2HLFKIN	S2 A10A NUMBER OF HALFDAY K CLASSES	Data recorded for respondent confidentiality
S2FLLKIN	S2 A10B NUMBER OF FULLDAY K CLASSES	Data recorded 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 recorded for respondent confidentiality
S2AMBUSLHH	S2 A13 TIME LAST BUS AM - HOURS	Data recorded for respondent confidentiality
S2STRTAMHH	S2 A14 OFFICIAL SCHOOL START TIME AM - HR	Data recorded for respondent confidentiality
S2BRKSTRHH	S2 A17 TIME BREAKFAST START - HR	Data recorded for respondent confidentiality
S2BRKENDHH	S2 A17 TIME BREAKFAST END - HR	Data recorded for respondent confidentiality
S2BRKLOC	S2 A18 WHERE BREAKFAST SERVED	Data recorded for respondent confidentiality
S2PDBRK	S4 A20A # PAID BREAKFASTS SERVED - OCT	Data recorded for respondent confidentiality
S2FREEBK	S4 A20B # FREE BREAKFASTS SERVED - OCT	Data recorded for respondent confidentiality
S2RDCBRK	S2 A20C # RED PRICE BREAKFASTS SVD - OCT	Data recorded for respondent confidentiality
S2FLPRBK	S2 A21 PRICE OF FULL PRICED BREAKFAST	Data recorded for respondent confidentiality
S2RDPRBK	S2 A22 PRICE OF REDUCED PRICE BREAKFAST	Data recorded for respondent confidentiality
S2TOPDLU	S2 A24A # PAID LUNCHESES SERVED - OCT	Data recorded for respondent confidentiality
S2TOFRLU	S2 A24B # FREE LUNCHESES SERVED - OCT	Data recorded for respondent confidentiality
S2TORDLU	S2 A24C # RED PRICE LUNCHESES SERVED - OCT	Data recorded for respondent confidentiality
S2FLPRLU	S2 A25 PRICE OF FULL PRICED LUNCH	Data recorded for respondent confidentiality
S2RDPRLU	S2 A26 PRICE OF REDUCED PRICE LUNCH	Data recorded for respondent confidentiality
S2NUMFRM	S2 A27A # CHILDREN APPROVED FREE LUNCH	Data recorded for respondent confidentiality
S2NUMRDM	S2 A27B # CHILDREN APPROVED RED LUNCH	Data recorded for respondent confidentiality
S2CHLDNM	S2 B2 # OF CHILDREN SITE ACCOMMODATES	Data recorded for respondent confidentiality
S2RPRTCD	S2 C3B FREQ OF REPORT CARDS	Data recorded for respondent confidentiality
S2DETECT	S2 C7B SCHOOL METAL DETECTORS	Data suppressed for respondent confidentiality
S2NMRETK	S2 D5 NUMBER RETAINED IN K LAST YEAR	Data recorded for respondent confidentiality
S2ESLREG	S2 E3A1 PCT 1 GR RECEIVE ESL IN REG CLAS	Data recorded for respondent confidentiality
S2ESLPLL	S2 E3A2 PCT K RECEIVE ESL IN PULLOUT	Data recorded for respondent confidentiality
S2BILINS	S2 E3B1 PCT K RECEIVE BILING IN REG CLS	Data recorded for respondent confidentiality

See note at end of exhibit.

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 G1I1 # 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 confidentiality
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 confidentiality
S2AIANP2	S2 G3B % AMER IND/ALASKA NAT TEACHERS	Data recoded for respondent confidentiality
S2ASIAN2	S2 G3C # ASIAN TEACHERS	Data suppressed for respondent confidentiality
S2ASIAP2	S2 G3C % ASIAN TEACHERS	Data recoded for respondent confidentiality
S2BLACN2	S2 G3D # BLACK TEACHERS	Data suppressed for respondent confidentiality
S2BLACP2	S2 G3D % BLACK TEACHERS	Data recoded for respondent confidentiality
S2HAWPN2	S2 G3E # HAWAIIAN TEACHERS	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 10. ECLS-K:2011 masked variables, spring kindergarten school administrator questionnaire—  
Continued

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

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.



Exhibit 11. ECLS-K:2011 masked variables, kindergarten composite variables

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

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.

Exhibit 12. ECLS-K:2011 masked variables, kindergarten field management system and identification variables

Variable name	Variable description	Comments
F1CADISP	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
F1FIPSSST	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
F2FIPSSST	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

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.

Exhibit 13. ECLS-K:2011 masked variables, fall 2011 child assessment

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

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.

Exhibit 14. ECLS-K:2011 masked variables, spring 2012 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

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.

Exhibit 15. ECLS-K:2011 masked variables, fall 2011 parent interview

Variable name	Variable description	Comments
P3CHDOBY	P3 INQ170C CHILD DATE OF BIRTH YEAR	Data recoded for respondent confidentiality
P3NWITHPA	P3 TUQ040 # WKS NOT STAY W/PARENT	Data recoded for respondent confidentiality
P3ATCAMP	P3 TUQ060C CHILD AT CAMP	Data suppressed for respondent confidentiality
P3SMSCNUM	P3 HEQ230A LENGTH ATTEND SUMMER SCHOOL	Data suppressed for respondent confidentiality
P3SMSCUN	P3 HEQ230B UNIT LENGTH SUMMER SCHOOL	Data suppressed for respondent confidentiality
P3NDYPRM	P3 HEQ250 # DAYS/WK ATTEND SUMMER SCHOOL	Data recoded for respondent confidentiality
P3SMENGL	P3 HEQ270G SUMMER SCHOOL ENGLISH INSTR	Data suppressed for respondent confidentiality
P3SCHSRV	P3 HEQ290 RECEIVED SPEC SERVICES SUMMER	Data suppressed for respondent confidentiality
P3SPCTRP	P3 HEQ298A CHD RECVD SPEECH/LANG THERAPY	Data suppressed for respondent confidentiality
P3OCCTRP	P3 HEQ298B CHILD RECVD OCCUP THERAPY	Data suppressed for respondent confidentiality
P3PHYTRP	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
P3NUMCMP	P3 HEQ305 # CAMPS	Data recoded for respondent confidentiality
P3NMDCMP	P3 HEQ330 # DAYS/WK ATTEND CAMP	Data recoded for respondent confidentiality
P3NMHCMP	P3 HEQ340 # HRS/DAY ATTEND CAMP	Data recoded for respondent confidentiality
P3NMWCMP	P3 HEQ350 # WEEKS ATTEND CAMP	Data recoded for respondent confidentiality
P3TUTREA	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
P3CARTYPE	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
P3LANGUA	P3 CMQ690 LANGUAGE INTERVIEW CONDUCTED	Data recoded for respondent confidentiality

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.

Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview

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 confidentiality
P4HRSSCH	P4 PIQ066 HOURS IN SCHOOL PER WEEK	Data suppressed for respondent confidentiality
P4REASL1	P4 FSQ015 REASON LEFT - PERS 1	Data suppressed for respondent confidentiality
P4REASL2	P4 FSQ015 REASON LEFT - PERS 2	Data suppressed for respondent confidentiality
P4REASL3	P4 FSQ015 REASON LEFT - PERS 3	Data suppressed for respondent confidentiality
P4REASL4	P4 FSQ015 REASON LEFT - PERS 4	Data suppressed for respondent confidentiality
P4REASL5	P4 FSQ015 REASON LEFT - PERS 5	Data suppressed for respondent confidentiality
P4REASL6	P4 FSQ015 REASON LEFT - PERS 6	Data suppressed for respondent confidentiality
P4REASL7	P4 FSQ015 REASON LEFT - PERS 7	Data suppressed for respondent confidentiality
P4REASL8	P4 FSQ015 REASON LEFT - PERS 8	Data suppressed for respondent confidentiality
P4REASL9	P4 FSQ015 REASON LEFT - PERS 9	Data suppressed for respondent confidentiality
P4REASL10	P4 FSQ015 REASON LEFT - PERS 10	Data suppressed for respondent confidentiality
P4REASL11	P4 FSQ015 REASON LEFT - PERS 11	Data suppressed for respondent confidentiality
P4REASL12	P4 FSQ015 REASON LEFT - PERS 12	Data suppressed for respondent confidentiality
P4REASL13	P4 FSQ015 REASON LEFT - PERS 13	Data suppressed for respondent confidentiality
P4REASL14	P4 FSQ015 REASON LEFT - PERS 14	Data suppressed for respondent confidentiality
P4REASL15	P4 FSQ015 REASON LEFT - PERS 15	Data suppressed for respondent confidentiality
P4REASL16	P4 FSQ015 REASON LEFT - PERS 16	Data suppressed for respondent confidentiality
P4REASL17	P4 FSQ015 REASON LEFT - PERS 17	Data suppressed for respondent confidentiality
P4REASL18	P4 FSQ015 REASON LEFT - PERS 18	Data suppressed for respondent confidentiality
P4REASL19	P4 FSQ015 REASON LEFT - PERS 19	Data suppressed for respondent confidentiality
P4REASL20	P4 FSQ015 REASON LEFT - PERS 20	Data suppressed for respondent confidentiality
P4REASL21	P4 FSQ015 REASON LEFT - PERS 21	Data suppressed for respondent confidentiality
P4REASL22	P4 FSQ015 REASON LEFT - PERS 22	Data suppressed for respondent confidentiality
P4REASL23	P4 FSQ015 REASON LEFT - PERS 23	Data suppressed for respondent confidentiality
P4REASL24	P4 FSQ015 REASON LEFT - PERS 24	Data suppressed for respondent confidentiality
P4REASL25	P4 FSQ015 REASON LEFT - PERS 25	Data suppressed for respondent confidentiality
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

See note at end of exhibit.

Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview—Continued

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 confidentiality
P4FLPNO	P4 PLQ040 OTHER LANGUAGE - FILIPINO	Data suppressed for respondent confidentiality
P4FRENCH	P4 PLQ040 OTHER LANGUAGE - FRENCH	Data suppressed for respondent confidentiality
P4GERMAN	P4 PLQ040 OTHER LANGUAGE - GERMAN	Data suppressed for respondent confidentiality
P4GREEK	P4 PLQ040 OTHER LANGUAGE - GREEK	Data suppressed for respondent confidentiality
P4ITALN	P4 PLQ040 OTHER LANGUAGE - ITALIAN	Data suppressed for respondent confidentiality
P4JAPNES	P4 PLQ040 OTHER LANGUAGE - JAPANESE	Data suppressed for respondent confidentiality
P4KOREAN	P4 PLQ040 OTHER LANGUAGE - KOREAN	Data suppressed for respondent confidentiality
P4POLISH	P4 PLQ040 OTHER LANGUAGE - POLISH	Data suppressed for respondent confidentiality
P4PORTUG	P4 PLQ040 OTHER LANGUAGE - PORTUGUESE	Data suppressed for respondent confidentiality
P4VIETNM	P4 PLQ040 OTHER LANGUAGE - VIETNAMESE	Data suppressed for respondent confidentiality
P4FARSI	P4 PLQ040 OTHER LANGUAGE - FARSI	Data suppressed for respondent confidentiality
P4HMONG	P4 PLQ040 OTHER LANGUAGE - HMONG	Data suppressed for respondent confidentiality
P4AFRLNG	P4 PLQ040 OTHER LANGUAGE - AFRICAN LANG	Data suppressed for respondent confidentiality
P4EASTEUR	P4 PLQ040 OTHER LANGUAGE - EASTRN EUROPN	Data suppressed for respondent confidentiality
P4NATVAM	P4 PLQ040 OTHER LANGUAGE - NATIVE AMER	Data suppressed for respondent confidentiality
P4SIGNLG	P4 PLQ040 OTHER LANGUAGE - SIGN LANG	Data suppressed for respondent confidentiality
P4MIDEST	P4 PLQ040 OTHER LANGUAGE - MIDDLE EASTRN	Data suppressed for respondent confidentiality
P4WSTEUR	P4 PLQ040 OTHER LANGUAGE - WESTRN EUROPN	Data suppressed for respondent confidentiality
P4SOASIA	P4 PLQ040 OTHER LANGUAGE - SOUTHEAST ASN	Data suppressed for respondent confidentiality
P4PACISL	P4 PLQ040 OTHER LANGUAGE - PACIFIC ISLDR	Data suppressed for respondent confidentiality
P4CREOLE	P4 PLQ040 OTHER LANGUAGE - CREOLE	Data suppressed for respondent confidentiality
P4OTHLNG	P4 PLQ040 OTHER LANGUAGE - OTHER	Data suppressed for respondent confidentiality
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 confidentiality
P4RPDTNF	P4 CCQ093B REL CARE PAID BY TANF	Data suppressed for respondent confidentiality
P4RPDSOC	P4 CCQ093C REL CARE PAID BY SOC SERVC	Data suppressed for respondent confidentiality
P4RPDEMP	P4 CCQ093D REL CARE PAID BY EMPLOYER	Data suppressed for respondent confidentiality
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 confidentiality
P4NPDTNF	P4 CCQ193B NR CARE PAID BY TANF	Data suppressed for respondent confidentiality
P4NPDSOC	P4 CCQ193C NR CARE PAID BY SOC SERVC	Data suppressed for respondent confidentiality
P4NPDEMP	P4 CCQ193D NR CARE PAID EMPLOYER	Data suppressed for respondent confidentiality
P4NPDOTH	P4 CCQ193E NR CARE PAID BY OTHER	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview—Continued

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 confidentiality
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 confidentiality
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 confidentiality
P4ADDYWK	P4 NRQ050 #DAYS CHD SAW ADPDAD LAST 4WKS	Data suppressed for respondent confidentiality
P4ADPHEM	P4 NRQ123 #TIMES PHONE/CALL/EMAIL/TEXT	Data suppressed for respondent confidentiality
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 confidentiality
P4KTUBE	P4 CHQ024D EAR TREATMENT - EAR TUBES	Data suppressed for respondent confidentiality
P4KFLSH	P4 CHQ024G EAR TREATMENT - FLUSH/IRRIG	Data suppressed for respondent confidentiality
P4KTONS	P4 CHQ024H EAR TREATMENT - TONSILS/ADNOID	Data suppressed for respondent confidentiality
P4KCHIR	P4 CHQ024I EAR TREATMENT - CHIROPRACTIC	Data suppressed for respondent confidentiality
P4KNODR	P4 CHQ024J EAR TREATMENT - NO DR VISIT	Data suppressed for respondent confidentiality
P4KOTHR	P4 CHQ024K EAR TREATMENT - OTHER	Data suppressed for respondent confidentiality
P4KETLO	P4 CHQ025 EAR TUBES IN WHICH EAR	Data suppressed for respondent confidentiality
P4LRNDIS	P4 CHQ125 DIAGNOSIS - LEARN DISABILITY	Data suppressed for respondent confidentiality
P4ADD	P4 CHQ125 DIAGNOSIS - ADD	Data suppressed for respondent confidentiality
P4ADHA	P4 CHQ125 DIAGNOSIS - ADHD	Data suppressed for respondent confidentiality
P4DEVDLY	P4 CHQ125 DIAGNOSIS - DEVELOP DELAY	Data suppressed for respondent confidentiality
P4AUTSM	P4 CHQ125 DIAGNOSIS - AUTISM SPEC DISORD	Data suppressed for respondent confidentiality
P4DYSLXA	P4 CHQ125 DIAGNOSIS - DYSLEXIA	Data suppressed for respondent confidentiality
P4DYSCLC	P4 CHQ125 DIAGNOSIS - DYSCALCULIA	Data suppressed for respondent confidentiality
P4COGNTV	P4 CHQ125 DIAGNOSIS - SEVERE COGNITIVE	Data suppressed for respondent confidentiality
P4ORTHOP	P4 CHQ125 DIAGNOSIS - ORTHOPEDIC IMPAIR	Data suppressed for respondent confidentiality

See note at end of exhibit.



Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview—Continued

Variable name	Variable description	Comments
P4EMODIS	P4 CHQ125 DIAGNOSIS - SER EMOTION DISTRB	Data suppressed for respondent confidentiality
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 confidentiality
P4OPPDEF	P4 CHQ125 DIAGNOSIS - OPPOS DEFIANCE DIS	Data suppressed for respondent confidentiality
P4OTHDIA	P4 CHQ125 DIAGNOSIS - OTHER	Data suppressed for respondent confidentiality
P4AUTSPC	P4 CHQ126 TYPE OF AUTISM SPECRM DISORDER	Data suppressed for respondent confidentiality
P4AGELD	P4 CHQ130 AGE AT 1ST DIAGNS-LRN DISABLY	Data suppressed for respondent confidentiality
P4AGELDU	P4 CHQ131 AGE 1ST DIAGNS-LRN DISBL UNIT	Data suppressed for respondent confidentiality
P4AGELDM	P4 CHQ135A AGE 1ST DIAGNS-LRN DIS MONTH	Data suppressed for respondent confidentiality
P4AGELDY	P4 CHQ135B AGE 1ST DIAGNS-LRN DIS YEAR	Data suppressed for respondent confidentiality
P4MEDLD	P4 CHQ140 TAKE PRESCRIPTION FOR LRN DIS	Data suppressed for respondent confidentiality
P4MEDLDL	P4 CHQ173 HOW LONG TAKING MED - LRN DIS	Data suppressed for respondent confidentiality
P4AGEADD	P4 CHQ130 AGE AT 1ST DIAGNS-ADD	Data suppressed for respondent confidentiality
P4AGEADU	P4 CHQ131 AGE 1ST DIAGNS-ADD UNIT	Data suppressed for respondent confidentiality
P4AGEADM	P4 CHQ135A AGE 1ST DIAGNS-ADD MONTH	Data suppressed for respondent confidentiality
P4AGEADY	P4 CHQ135B AGE 1ST DIAGNS-ADD YEAR	Data suppressed for respondent confidentiality
P4MEDAD	P4 CHQ140 TAKING PRESCRIPTION FOR ADD	Data suppressed for respondent confidentiality
P4LOCMEDI	P4 CHQ155 LOCATION TAKING RX -ADD	Data suppressed for respondent confidentiality
P4MEDLAD	P4 CHQ173 HOW LONG TAKING MED - ADD	Data suppressed for respondent confidentiality
P4AGEAHD	P4 CHQ130 AGE AT 1ST DIAGNS-ADHD	Data suppressed for respondent confidentiality
P4AGEHDU	P4 CHQ131 AGE 1ST DIAGNS-ADHD UNIT	Data suppressed for respondent confidentiality
P4AGEHDM	P4 CHQ135A AGE 1ST DIAGNS-ADHD MONTH	Data suppressed for respondent confidentiality
P4AGEHDY	P4 CHQ135B AGE 1ST DIAGNS-ADHD YEAR	Data suppressed for respondent confidentiality
P4MEDLHD	P4 CHQ173 HOW LONG TAKING MED - ADHD	Data suppressed for respondent confidentiality
P4AGEDV	P4 CHQ130 AGE AT 1ST DIAGNS-DEV DELAY	Data suppressed for respondent confidentiality
P4AGEDVU	P4 CHQ131 AGE 1ST DIAGNS-DEV DEL UNIT	Data suppressed for respondent confidentiality
P4AGEDVM	P4 CHQ135A AGE 1ST DIAGNS-DEV DEL MONTH	Data suppressed for respondent confidentiality
P4AGEDVY	P4 CHQ135B AGE 1ST DIAGNS-DEV DEL YEAR	Data suppressed for respondent confidentiality
P4MEDDV	P4 CHQ140 TAKE PRESCRIPTION FOR DEV DEL	Data suppressed for respondent confidentiality
P4MEDDVL	P4 CHQ173 HOW LONG TAKING MED - DEV DEL	Data suppressed for respondent confidentiality

See note at end of exhibit.

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

See note at end of exhibit.

Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview—Continued

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 confidentiality
P4AGESA	P4 CHQ130 AGE AT 1ST DIAGNS-SEP ANXTY	Data suppressed for respondent confidentiality
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 confidentiality
P4AGESAY	P4 CHQ135B AGE 1ST DIAGNS-SEP ANX YEAR	Data suppressed for respondent confidentiality
P4MEDSA	P4 CHQ140 TAKE PRESCRIPTION FOR SEP ANX	Data suppressed for respondent confidentiality
P4MEDSAL	P4 CHQ173 HOW LONG TAKING MED - SEP ANX	Data suppressed for respondent confidentiality
P4AGEOC	P4 CHQ130 AGE AT 1ST DIAGNS-OCD	Data suppressed for respondent confidentiality
P4AGEOCU	P4 CHQ131 AGE 1ST DIAGNS-OCD UNIT	Data suppressed for respondent confidentiality
P4AGEOCM	P4 CHQ135A AGE 1ST DIAGNS-OCD MONTH	Data suppressed for respondent confidentiality
P4AGEOCY	P4 CHQ135B AGE 1ST DIAGNS-OCD YEAR	Data suppressed for respondent confidentiality
P4MEDOC	P4 CHQ140 TAKE PRESCRIPTION FOR OCD	Data suppressed for respondent confidentiality
P4MEDOCL	P4 CHQ173 HOW LONG TAKING MED - OCD	Data suppressed for respondent confidentiality
P4AGEGA	P4 CHQ130 AGE AT 1ST DIAGNS-GAD	Data suppressed for respondent confidentiality
P4AGEGAU	P4 CHQ131 AGE 1ST DIAGNS-GAD UNIT	Data suppressed for respondent confidentiality
P4AGEGAM	P4 CHQ135A AGE 1ST DIAGNS-GAD MONTH	Data suppressed for respondent confidentiality
P4AGEGAY	P4 CHQ135B AGE 1ST DIAGNS-GAD YEAR	Data suppressed for respondent confidentiality
P4MEDGA	P4 CHQ140 TAKE PRESCRIPTION FOR GAD	Data suppressed for respondent confidentiality
P4MEDGAL	P4 CHQ173 HOW LONG TAKING MED - GAD	Data suppressed for respondent confidentiality
P4AGEAN	P4 CHQ130 AGE AT 1ST DIAGNS-OTH ANXTY DS	Data suppressed for respondent confidentiality
P4AGEANU	P4 CHQ131 AGE 1ST DIAGNS-ANXTY UNIT	Data suppressed for respondent confidentiality
P4AGEANM	P4 CHQ135A AGE 1ST DIAGNS-ANXTY MONTH	Data suppressed for respondent confidentiality
P4AGEANY	P4 CHQ135B AGE 1ST DIAGNS-ANXTY YEAR	Data suppressed for respondent confidentiality
P4MEDAN	P4 CHQ140 TAKE PRESCRIPTION FOR ANXTY	Data suppressed for respondent confidentiality
P4MEDANL	P4 CHQ173 HOW LONG TAKING MED - ANXTY	Data suppressed for respondent confidentiality
P4AGEBI	P4 CHQ130 AGE AT 1ST DIAGNS-BIPOLAR	Data suppressed for respondent confidentiality
P4AGEBIU	P4 CHQ131 AGE 1ST DIAGNS-BIPLR UNIT	Data suppressed for respondent confidentiality
P4AGEBIM	P4 CHQ135A AGE 1ST DIAGNS-BIPLR MONTH	Data suppressed for respondent confidentiality
P4AGEBIY	P4 CHQ135B AGE 1ST DIAGNS-BIPLR YEAR	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview—Continued

Variable name	Variable description	Comments
P4MEDBI	P4 CHQ140 TAKE PRESCRIPTION FOR BIPLR	Data suppressed for respondent confidentiality
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 confidentiality
P4AGESPM	P4 CHQ135A AGE 1ST DIAGNS-SPEECH MONTH	Data suppressed for respondent confidentiality
P4AGESPY	P4 CHQ135B AGE 1ST DIAGNS-SPEECH YEAR	Data suppressed for respondent confidentiality
P4MEDSPC	P4 CHQ140 TAKE PRESCRIPTION FOR SPEECH	Data suppressed for respondent confidentiality
P4MEDSPL	P4 CHQ173 HOW LONG TAKING MED - SPEECH	Data suppressed for respondent confidentiality
P4AGESDF	P4 CHQ130 AGE AT 1ST DIAGNS-SENS DEF	Data suppressed for respondent confidentiality
P4AGESDU	P4 CHQ131 AGE 1ST DIAGNS-SENS DEF UNIT	Data suppressed for respondent confidentiality
P4AGESDM	P4 CHQ135A AGE 1ST DIAGNS-SENS DEF MONTH	Data suppressed for respondent confidentiality
P4AGESDY	P4 CHQ135B AGE 1ST DIAGNS-SENS DEF YEAR	Data suppressed for respondent confidentiality
P4MEDSDF	P4 CHQ140 TAKE PRESCRIPTION FOR SENS DEF	Data suppressed for respondent confidentiality
P4MEDSDL	P4 CHQ173 HOW LONG TAKING MED - SENS DEF	Data suppressed for respondent confidentiality
P4AGEOT	P4 CHQ130 AGE AT 1ST DIAGNS-OTHER	Data suppressed for respondent confidentiality
P4AGEOTU	P4 CHQ131 AGE 1ST DIAGNS-OTH UNIT	Data suppressed for respondent confidentiality
P4AGEOTM	P4 CHQ135A AGE 1ST DIAGNS-OTH MONTH	Data suppressed for respondent confidentiality
P4AGEOTY	P4 CHQ135B AGE 1ST DIAGNS-OTH YEAR	Data suppressed for respondent confidentiality
P4MEDOTL	P4 CHQ173 HOW LONG TAKING MED - OTH	Data suppressed for respondent confidentiality
P4CHEW	P4 CHQ206C COMMUN ISSUE - CHEWING	Data suppressed for respondent confidentiality
P4SWALLO	P4 CHQ206D COMMUN ISSUE - SWALLOW	Data suppressed for respondent confidentiality
P4CLEFT	P4 CHQ206F COMMUN ISSUE- CLEFT	Data suppressed for respondent confidentiality
P4ABNRML	P4 CHQ206G COMMUN ISSUE - ABNORMAL	Data suppressed for respondent confidentiality
P4MALFRM	P4 CHQ206H COMMUN ISSUE - MALFORM EAR	Data suppressed for respondent confidentiality
P4DEHEAR	P4 CHQ216 DESCRIBE HEARING	Data recoded for respondent confidentiality
P4DESCHR	P4 CHQ222 DESCRIBES HEARING IN WORSE EAR	Data suppressed for respondent confidentiality
P4EARWX	P4 CHQ217 HEAR WHISPER IN QUIET ROOM	Data suppressed for respondent confidentiality
P4CLDFRM	P4 CHQ246 HEARING DIAGNOSIS-CANAL DEFORM	Data suppressed for respondent confidentiality
P4EARSCK	P4 CHQ246 HEARING DIAGNOSIS-EAR INFECTN	Data suppressed for respondent confidentiality
P4FLDNER	P4 CHQ246 HEARING DIAGNOSIS-FLUID IN EAR	Data suppressed for respondent confidentiality
P4EARDRM	P4 CHQ246 HEARING DIAGNOSIS-EAR DRUM PRB	Data suppressed for respondent confidentiality
P4ILLNES	P4 CHQ246 HEARING DIAGNOSIS-ILLNESS	Data suppressed for respondent confidentiality

See note at end of exhibit.

Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview—Continued

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

See note at end of exhibit.

Exhibit 16. ECLS-K:2011 masked variables, spring 2012 parent interview—Continued

Variable name	Variable description	Comments
P4LIMPYR	P4 CHQ273 LEFT EAR IMPLANT YEAR	Data suppressed for respondent confidentiality
P4RIMPYR	P4 CHQ274 RIGHT EAR IMPLANT YEAR	Data suppressed for respondent confidentiality
P4ALIMPU	P4 CHQ275A AGE L IMPLANT - UNIT	Data suppressed for respondent confidentiality
P4ALIMPM	P4 CHQ275B AGE L IMPLANT - MONTH	Data suppressed for respondent confidentiality
P4ALIMPY	P4 CHQ275C AGE L IMPLANT - YEAR	Data suppressed for respondent confidentiality
P4ARIMPU	P4 CHQ276A AGE R IMPLANT - UNIT	Data suppressed for respondent confidentiality
P4ARIMPM	P4 CHQ276B AGE R IMPLANT - MONTH	Data suppressed for respondent confidentiality
P4ARIMPY	P4 CHQ276C AGE R IMPLANT - YEAR	Data suppressed for respondent confidentiality
P4COCHWH	P4 CHQ277 HR WHISPER IN QUIET RM W/COCH	Data suppressed for respondent confidentiality
P4COCHRG	P4 CHQ278 HEAR NORMAL IN QUIET RM W/COCH	Data suppressed for respondent confidentiality
P4COCHSH	P4 CHQ279 HEAR SHOUT IN QUIET RM W/COCH	Data suppressed for respondent confidentiality
P4COCHER	P4 CHQ280 HEAR SPEAKS LOUDLY EAR W/COCH	Data suppressed for respondent confidentiality
P4VISCLR	P4 CHQ301 VISION DIAGNOSIS - COLOR BLIND	Data suppressed for respondent confidentiality
P4VISCRS	P4 CHQ301 VISION DIAGNOSIS - CROSS EYED	Data suppressed for respondent confidentiality
P4VISRET	P4 CHQ301 VISION DIAGNOSIS - RETINOPATHY	Data suppressed for respondent confidentiality
P4VISBLN	P4 CHQ301 VISION DIAGNOSIS - BLINDNESS	Data suppressed for respondent confidentiality
P4AWAITG	P4 CHQ301 VISION DIAGNOSIS - AWAITING EVAL	Data suppressed for respondent confidentiality
P4AGVIU1	P4 CHQ305A AGE 1ST DIAGNS-VISION UNIT	Data suppressed for respondent confidentiality
P4AGVIM1	P4 CHQ305B AGE 1ST DIAGNS-VISION MONTH	Data suppressed for respondent confidentiality
P4AGVIY1	P4 CHQ305C AGE 1ST DIAGNS-VISION YEAR	Data suppressed for respondent confidentiality
P4VISMO	P4 CHQ310A MONTH 1ST DIAGNS-VISION	Data suppressed for respondent confidentiality
P4VISYR	P4 CHQ310B YEAR 1ST DIAGNS-VISION	Data suppressed for respondent confidentiality
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 confidentiality
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 confidentiality
P4OCCPTH	P4 CHQ345B OCCUPATNL THERAPY BF SCHL YR	Data suppressed for respondent confidentiality
P4PHYSTH	P4 CHQ345C PHYSICAL THERAPY BF SCHL YR	Data suppressed for respondent confidentiality
P4VISSRV	P4 CHQ345D VISION SERVICES BF SCHL YR	Data suppressed for respondent confidentiality
P4HRGSRV	P4 CHQ345E HEARING SERVICES BF SCHL YR	Data suppressed for respondent confidentiality
P4SOCWRK	P4 CHQ345F SOC WORK SERVICES BF SCHL YR	Data suppressed for respondent confidentiality
P4PSYCSV	P4 CHQ345G PSYC SERVICES BF SCHL YR	Data suppressed for respondent confidentiality
P4HOMEVT	P4 CHQ345H HOME VISITS BEFORE SCHL YR	Data suppressed for respondent confidentiality
P4PRNTSP	P4 CHQ345I PARENT SPPT/TRAIN BF SCHL YR	Data suppressed for respondent confidentiality
P4SPCCLS	P4 CHQ345J SPC NEEDS CLASSES BF SCHL YR	Data suppressed for respondent confidentiality
P4PVTUTR	P4 CHQ345K PRVT TUTOR/ SCHLNG BF SCHL YR	Data suppressed for respondent confidentiality
P4BRALLE	P4 CHQ345L BRAILLE INSTRCTION BF SCHL YR	Data suppressed for respondent confidentiality
P4SGNLNG	P4 CHQ345M SIGN LANG INSTR BF SCHL YR	Data suppressed for respondent confidentiality

See note at end of exhibit.

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

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.

Exhibit 17. ECLS-K:2011 masked variables, spring 2012 teacher-level teacher questionnaire

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 confidentiality
A4TTRNK	A4 A5B MULTIGRADE HAS TRANSITIONAL K	Data suppressed for respondent confidentiality
A4TREGK	A4 A5C MULTIGRADE HAS REGULAR K	Data suppressed for respondent confidentiality
A4TPRE1	A4 A5D MULTIGRADE HAS PRE-1ST GR	Data suppressed for respondent confidentiality
A4T1ST	A4 A5E MULTIGRADE HAS 1ST GR	Data suppressed for respondent confidentiality
A4T2ND	A4 A5F MULTIGRADE HAS 2ND GR	Data suppressed for respondent confidentiality
A4T3RD	A4 A5G MULTIGRADE HAS 3RD GR	Data suppressed for respondent confidentiality
A4T4TH	A4 A5H MULTIGRADE HAS 4TH OR HIGHER	Data suppressed for respondent confidentiality
A44YRSLS	A4 A6A NUM OF 4-YEAR-OLDS/LESS IN CLASS	Data suppressed for respondent confidentiality
A45YROL	A4 A6B HOW MANY 5-YEAR-OLDS IN CLASS	Data suppressed for respondent confidentiality
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 confidentiality
A49YROL	A4 A6F HOW MANY 9-YEAR-OLDS IN CLASS	Data suppressed for respondent confidentiality
A410YRMO	A4 A6G NUM OF 10-YEAR-OLD/OLDER IN CLASS	Data suppressed for respondent confidentiality
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 confidentiality
A4SASIAN	A4 A7C # ASIAN	Data suppressed for respondent confidentiality
A4SBLACK	A4 A7D # BLACK/AFRICAN AMERICAN	Data recoded for respondent confidentiality
A4SHAWPI	A4 A7E # NATIVE HAWAIIAN/PAC ISL	Data suppressed for respondent confidentiality
A4SWHITE	A4 A7F # WHITES	Data recoded for respondent confidentiality
A4SMULTR	A4 A7G # TWO OR MORE RACES	Data suppressed for respondent confidentiality
A4TOTRA	A4 A7H TOTAL CLASS ENROLLMENT (RACES)	Data recoded for respondent confidentiality
A4BOYS	A4 A8A NUMBER OF BOYS IN CLASS	Data suppressed for respondent confidentiality
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 confidentiality

See note at end of exhibit.



Exhibit 17. ECLS-K:2011 masked variables, spring 2012 teacher-level teacher questionnaire—  
Continued

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 INSTRUC	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 INSTRUC	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
A4BKSFN	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
A4BK SARB	A4 A18I BOOKS IN ARABIC	Data suppressed for respondent confidentiality
A4BKINDN	A4 A18J BOOKS IN ASN INDIAN SUBCON LANG	Data suppressed for respondent confidentiality
A4BKSO TH	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
A4TVT NM	A4 A25C TCHR SPEAKS VIETNAMESE	Data suppressed for respondent confidentiality

See note at end of exhibit.

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

See note at end of exhibit.

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 confidentiality
A4DEGERL	A4 H12A UNDER GRAD/EARLY CHILDHOOD ED	Data suppressed for respondent confidentiality
A4DEGELM	A4 H12B UNDER GRAD/ELEMENTARY ED	Data suppressed for respondent confidentiality
A4DEGSPE	A4 H12C UNDER GRAD/SPECIAL ED	Data suppressed for respondent confidentiality
A4DEGOTH	A4 H12D UNDER GRAD/OTHER ED MAJOR	Data suppressed for respondent confidentiality
A4DEGNON	A4 H12E UNDER GRAD/NON ED MAJOR	Data suppressed for respondent confidentiality
A4GRDERL	A4 H13A GRAD DEG/EARLY CHILDHOOD ED	Data suppressed for respondent confidentiality
A4GRDELM	A4 H13B GRAD DEG/ELEMENTARY ED	Data suppressed for respondent confidentiality
A4GRDSPE	A4 H13C GRAD DEG/SPECIAL ED	Data suppressed for respondent confidentiality
A4GRDOTH	A4 H13D GRAD DEG/OTHER ED MAJOR	Data suppressed for respondent confidentiality
A4GRDNON	A4 H13E GRAD DEG/NON ED MAJOR	Data suppressed for respondent confidentiality
A4ELEMCT	A4 H17A CERTIFICATION: ELEMENTARY ED	Data suppressed for respondent confidentiality
A4ERLYCT	A4 H17B CERTIFICATION: EARLY CHILD ED	Data suppressed for respondent confidentiality
A4SPECCT	A4 H17C CERTIFICATION: SPECIAL EDUCATION	Data suppressed for respondent confidentiality
A4ESLCT	A4 H17D CERTIFICATION: ENG AS SECND LNG	Data suppressed for respondent confidentiality
A4OTHRCT	A4 H17E CERTIFICATION: OTHER	Data suppressed for respondent confidentiality

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.

Exhibit 18. ECLS-K:2011 masked variables, fall 2011 and spring 2012 child-level teacher questionnaires

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
T4CHRDP	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
T4KLNKTM	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 confidentiality
T4KHEALTH	T4K S5A FELL BEHIND - HEALTH PROBLEM	Data suppressed for respondent confidentiality
T4KDISCIP	T4K S5B FELL BEHIND - DISCIPLINE PROBLEM	Data suppressed for respondent confidentiality
T4KEFFORT	T4K S5C FELL BEHIND - LACK OF EFFORT	Data suppressed for respondent confidentiality
T4KDISORG	T4K S5D FELL BEHIND - DISORGANIZED	Data suppressed for respondent confidentiality
T4KSKILL	T4K S5E FELL BEHIND - LACK OF SKILLS	Data suppressed for respondent confidentiality
T4KFRQABS	T4K S5F FELL BEHIND - FREQUENT ABSENCES	Data suppressed for respondent confidentiality
T4KEMOPRB	T4K S5G FELL BEHIND - EMOTIONAL/FAM PROB	Data suppressed for respondent confidentiality
T4KOTHRES	T4K S5H FELL BEHIND - OTHER REASON	Data suppressed for respondent confidentiality
T4KELLPRB	T4K S5 FELL BEHIND - LANGUAGE BARRIER	Data suppressed for respondent confidentiality
T4KFOCUS	T4K S5 FELL BEHIND - DISTRACTD/LACK FOCUS	Data suppressed for respondent confidentiality
T4KGFTRD	T4K S6E GIFTED PROGRAM IN READ/LANG ARTS	Data suppressed for respondent confidentiality
T4KGFMTMH	T4K S6F GIFTED PROGRAM IN MATHEMATICS	Data suppressed for respondent confidentiality
T4KBEFORE	T4K S7A INSTR SERVICES BEFORE SCHOOL	Data suppressed for respondent confidentiality
T4KWKEND	T4K S7C INSTR SERVICES WEEKENDS	Data suppressed for respondent confidentiality
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 confidentiality
T4KLNKINT	T4K S10 LANGUAGE INSTRUCTION	Data suppressed for respondent confidentiality
T4KSPINS	T4K S11A DAYS RECEIVE SPEC LANG INSTRUCT	Data suppressed for respondent confidentiality
T4KTRCIN	T4K S11B TIMES PER DAY REC SPEC LNG INS	Data suppressed for respondent confidentiality
T4KHRCIN	T4K S12 TIMES INSTR IN NATIVE LANG	Data suppressed for respondent confidentiality
T4KACCOM	T4K S15 SPECIAL TEST ACCOMMODATIONS	Data recoded for respondent confidentiality

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.

Exhibit 19. ECLS-K:2011 masked variables, spring 2012 school administrator questionnaire

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

See note at end of exhibit.

Exhibit 19. ECLS-K:2011 masked variables, spring 2012 school administrator questionnaire—  
Continued

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 BREAKFASTS 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

See note at end of exhibit.

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 G1I1 # 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

See note at end of exhibit.

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 confidentiality
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 confidentiality
S4ASIAP2	S4 G4C % ASIAN TEACHERS	Data recoded for respondent confidentiality
S4ASIAN2	S4 G4C # ASIAN TEACHERS	Data suppressed for respondent confidentiality
S4BLACP2	S4 G4D % BLACK TEACHERS	Data recoded for respondent confidentiality
S4BLACN2	S4 G4D # BLACK TEACHERS	Data suppressed for respondent confidentiality
S4HAWPP2	S4 G4E % HAWAIIAN TEACHERS	Data recoded for respondent confidentiality
S4HAWPN2	S4 G4E # HAWAIIAN TEACHERS	Data suppressed for respondent confidentiality
S4WHITP2	S4 G4F % WHITE TEACHERS	Data recoded for respondent confidentiality
S4WHITN2	S4 G4F # WHITE TEACHERS	Data suppressed for respondent confidentiality
S4MULTP2	S4 G4G % 2+ RACE TEACHERS	Data recoded for respondent confidentiality
S4MULTN2	S4 G4G # 2+ RACE TEACHERS	Data suppressed for respondent confidentiality
S4NUMTOT	S4 G4H TOTAL # OF TEACHERS	Data recoded for respondent confidentiality
S4RYYEMP	S4 G8A # OF YRS RESPONDENT AT SCHOOL	Data suppressed for respondent confidentiality
S4RMMEMP	S4 G8B # OF MNTHS RESP AT SCHOOL	Data suppressed for respondent confidentiality
S4GENDER	S4 H1 GENDER OF SCHOOL ADMINISTRATOR	Data suppressed for respondent confidentiality
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 confidentiality
S4AMINAN	S4 H4A SCHL ADMIN IS AMER IND/ALASKA NAT	Data suppressed for respondent confidentiality
S4ASIAN	S4 H4B SCHL ADMIN IS ASIAN	Data suppressed for respondent confidentiality
S4BLACK	S4 H4C SCHL ADMIN IS BLACK/AFRICAN AMER	Data suppressed for respondent confidentiality
S4HAWPI	S4 H4D SCL ADMIN IS NAT HAWAIIAN/PAC ISL	Data suppressed for respondent confidentiality
S4WHITE	S4 H4E SCHL ADMIN IS WHITE	Data suppressed for respondent confidentiality
S4YSTCH	S4 H5A NUMBER OF YRS TEACHING	Data recoded for respondent confidentiality

See note at end of exhibit.



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

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.

Exhibit 20. ECLS-K:2011 masked variables, fall 2011 and spring 2012 composite variables

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

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.

Exhibit 21. ECLS-K:2011 masked variables, fall 2011 and spring 2012 field management system and identification variables

Variable name	Variable description	Comments
F3CADISP	F3 CHILD ASSESSMENT DISPOSITION CODE	Data suppressed for respondent confidentiality
F4CADISP	F4 CHILD ASSESSMENT DISPOSITION CODE	Data suppressed for respondent confidentiality
F3PIDISP	F3 PARENT INTERVIEW DISPOSITION CODE	Data suppressed for respondent confidentiality
F4PIDISP	F2 PARENT INTERVIEW DISPOSITION CODE	Data suppressed for respondent confidentiality
F3CCDLEA	F4 CCD LEA/SCHOOL DIST ID (PUBLIC)	Data suppressed for respondent confidentiality
F4CCDLEA	F4 CCD LEA/SCHOOL DIST ID (PUBLIC)	Data suppressed for respondent confidentiality
F3CCDSID	F3 CCD SCHOOL ID (PUBLIC)	Data suppressed for respondent confidentiality
F4CCDSID	F4 CCD SCHOOL ID (PUBLIC)	Data suppressed for respondent confidentiality
F3FIPSCT	F3 SCHOOL FIPS COUNTY CODE	Data suppressed for respondent confidentiality
F4FIPSCT	F4 SCHOOL FIPS COUNTY CODE	Data suppressed for respondent confidentiality
F3FIPSST	F3 SCHOOL FIPS STATE CODE	Data suppressed for respondent confidentiality
F4FIPSST	F4 SCHOOL FIPS STATE CODE	Data suppressed for respondent confidentiality
F3SCHPIN	F3 SCHOOL PIN (PRIVATE/PSS)	Data suppressed for respondent confidentiality
F4SCHPIN	F4 SCHOOL PIN (PRIVATE/PSS)	Data suppressed for respondent confidentiality
F3SCHZIP	F3 SCHOOL ZIP CODE	Data suppressed for respondent confidentiality
F4SCHZIP	F4 SCHOOL ZIP CODE	Data suppressed for respondent confidentiality
F3CENTRC	F3 SCHOOL CENSUS TRACT CODE	Data suppressed for respondent confidentiality
F4CENTRC	F4 SCHOOL CENSUS TRACT CODE	Data suppressed for respondent confidentiality
P3CENTRC	P3 HOME CENSUS TRACT CODE	Data suppressed for respondent confidentiality
P4CENTRC	P4 HOME CENSUS TRACT CODE	Data suppressed for respondent confidentiality
P3HOMZIP	P3 HOME ZIP CODE	Data suppressed for respondent confidentiality
P4HOMZIP	P4 HOME ZIP CODE	Data suppressed for respondent confidentiality
X3REGION	X3 CENSUS REGION OF SCHOOL	Data suppressed for respondent confidentiality
X4REGION	X4 CENSUS REGION OF SCHOOL	Data suppressed for respondent confidentiality
T3_ID	FALL 2011 TEACHER IDENTIFICATION NUMBER	Data suppressed for respondent confidentiality
T4_ID	SPRING 2012 TEACHER IDENTIFICATION NUMBER	Data suppressed for respondent confidentiality
D4T_ID	SPRING 2012 SPECIAL ED TEACHER ID NUMBER	Data suppressed for respondent confidentiality

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.