ECLS-K:2011 Variable Documentation for `ecls_complete_final.csv`

Yana Xu

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Contents

1 Introduction

This document is a variable dictionary for the dataset `ecls_complete_final.csv`, created from the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011) restricted-use files.

Wave numbering follows the NCES convention:

- Wave 1 = Fall kindergarten (2010)
- Wave 2 = Spring kindergarten (2011)
- Wave 3 = Fall first grade (2011)
- Wave 4 = Spring first grade (2012)
- Wave 5 = Fall second grade (2012)
- Wave 6 = Spring second grade (2013)
- Wave 7 = Spring third grade (2014)
- Wave 8 = Spring fourth grade (2015)
- Wave 9 = Spring fifth grade (2016)

Variable names in the CSV are mostly lowercase; the corresponding official ECLS-K:2011 composite names are uppercase but otherwise identical. When both appear in the dataset (for example, `childid` and `CHILDID`), they are conceptually the same ID.

This codebook is based on:

- The ECLS-K:2011 restricted-use manual text you provided (especially Chapter 7)
- Standard NCES naming and coding conventions for ECLS-K:2011

Only official NCES meanings are used. Where the exact cutpoints or scale construction are not visible in the text you provided (for example, SES standardization weights), this is clearly noted in Section 19.

2 General Coding and Missing Values

Across ECLS-K:2011 composites, special codes follow NCES conventions:

Code	**Meaning**
−1	Inapplicable or not asked due to skip pattern

−7	Refused
−8	Don't know
−9	Not ascertained / no usable data for that construct

Unless otherwise noted, these codes apply to the composites in this dataset.

3 Technical / Index Variable

Variable	Description
`Unnamed..0`	Index column created when exporting or reading the CSV (for example by `read.csv` in R). Not an official ECLS-K:2011 variable and should not be used as a substantive variable.

4 Core Identifiers

Variable	Description
`childid`, `CHILDID`	Unique child identifier for the ECLS-K:2011 sample child. Constant across all waves.
`PARENTID`	Identifier for the parent respondent in the parent interview. Links child records to parent-respondent information.
`PSUID`	Primary sampling unit identifier, used in design-based variance estimation together with strata and weights.

5 Mathematics Cognitive Scores (Waves 1–9)

All mathematics scores are NCES IRT-based scale scores summarizing math achievement.

Variables	Description
`x1mscalk5` – `x9mscalk5` (`X1MSCALK5` – `X9MSCALK5`)	Mathematics IRT scale scores for waves 1–9, respectively. Higher values indicate higher mathematics achievement at each round. Derived from the math cognitive assessment items administered at each wave.

6 Science Cognitive Scores

Science assessments were administered in a subset of waves.

Variables	Description
X2SSCALK5, X4SSCALK5, X6SSCALK5, X7SSCALK5, X8SSCALK5, X9SSCALK5	Science IRT scale scores for waves 2, 4, 6, 7, 8, and 9. Higher values indicate higher science achievement based on the science assessment administered in that wave.

7 School Identifiers by Wave

Variables	Description
s1_id – s9_id (S1_ID – S9_ID)	School identifiers for the school attended by the child in each wave. Children may change schools across waves, so these are wave-specific school IDs.

8 Child Sex, Height, Weight, and BMI

Variables	Description
x_chsex_r (X_CHSEX_R)	Child's sex, recoded. Typically coded 1 = male, 2 = female.
x1height – x9height (X1HEIGHT – X9HEIGHT)	Measured child height at each wave, taken by assessors following standardized ECLS protocols. Units in the composite are inches (see manual).
x1weight – x9weight (X1WEIGHT – X9WEIGHT)	Measured child weight at each wave, taken by assessors. Units in the composite are pounds.
x1bmi – x9bmi (X1BMI – X9BMI)	Body mass index (BMI) at each wave, derived from height and weight composites using the standard BMI formula.

9 Child Disability Status

The disability composites are based on the disability and services questions from the parent interview, including items CHQ120, CHQ125, CHQ215, CHQ245, CHQ246, CHQ300, CHQ301, and CHQ340.

Variables	Description
x2disabl, x4disabl, x6disabl, x7disabl, x8disabl, x9disabl (X2DISABL – X9DISABL)	Composite indicator for whether the child has a diagnosed disability or receives services for a diagnosed disability at that round. For each wave: • 1 = diagnosed disability or services reported • 2 = no disability reported • −9 = not ascertained (for example, all diagnosis/therapy items are -7/-8/-9) For example, X9DISABL is coded 1 if the parent answered "yes" to at least one diagnosis or therapy-services question (CHQ120, CHQ215, CHQ245, CHQ300, CHQ340) and the specific diagnosis items are not coded as refused/don't know/not ascertained or in waiting-only categories (such as "awaiting evaluation" without a diagnosis). Children can be coded 2 (no disability) even with some missing items, as long as at least one relevant item is answered "no" or inapplicable and no valid diagnosis is reported.

Note: the more conservative X#DISABL2 variables (which treat any missing key item as not ascertained) exist in the full ECLS-K:2011 files but are not included in this CSV.

10 Household Composition: Counts

Household composition is based on the Family Structure Questions (FSQ) and the round-specific household rosters.

Variables	Description

x1htotal, x2htotal, x4htotal, x6htotal, x7htotal, x8htotal, x9htotal (X1HTOTAL – X9HTOTAL)	Total number of household members in the child's household at each wave. For later rounds, this includes: • Members already on the roster who are still in the household, and • Any new members added since the last roster interview. Household membership is determined using the P*CUR_# variables (e.g., P9CUR_1-P9CUR_25).

11 Household Income, Parent Education, Employment, SES

11.1 Household Income Category (Imputed)

Variables	Description
x2inccat_i, x4inccat_i, x6inccat_i, x7inccat_i, x8inccat_i, x9inccat_i (X2INCCAT_I – X9INCCAT_I)	Composite categorical measure of the household income-to-poverty ratio, with imputation applied to fill missing income reports. Categories group households into ranges of income relative to the federal poverty level (e.g., below poverty, near poverty, above poverty) as defined in the NCES manual. Exact category labels and cutpoints should be read from the full manual.

11.2 Parent Education (Imputed)

Parent identifiers are first defined using the roster-based composites X#IDP1 and X#IDP2, which follow the detailed rules in the manual (mother/father first; then parent figures, then respondents/spouses).

Variables	Description

x12par1ed_i, x4par1ed_i, x7par1ed_i, x8par1ed_i, x9par1ed_i (X12PAR1ED_I, X4PAR1ED_I, X7PAR1ED_I, X8PAR1ED_I, X9PAR1ED_I)	Highest educational attainment of parent 1 (primary residential parent figure) with imputation for missing education responses. Categories follow NCES coding (for example: less than high school, high school diploma/GED, some college, bachelor's degree, graduate degree).
x12par2ed_i, x4par2ed_i, x7par2ed_i, x8par2ed_i, x9par2ed_i (X12PAR2ED_I, X4PAR2ED_I, X7PAR2ED_I, X8PAR2ED_I, X9PAR2ED_I)	Highest educational attainment of parent 2 (secondary residential parent figure), with imputation. Same coding scheme as for parent 1.

11.3 Parent Employment Composites

Parent employment is based on the EMQ employment section, with pointer variables P#EMPP1 and P#EMPP2 identifying which roster person is parent 1 or parent 2.

Variables	Description
x1par1emp, x4par1emp_i, x6par1emp_i, x9par1emp_i (X1PAR1EMP, X4PAR1EMP_I, X6PAR1EMP_I, X9PAR1EMP_I)	Employment composite for parent 1 at each wave. Summarizes employment status based on EMQ items (paid job last week, hours worked, job search activity, military service, etc.). Values classify parents as employed, unemployed, or not in the labor force following NCES definitions.

x1par2emp, x4par2emp_i, x6par2emp_i, x9par2emp_i (X1PAR2EMP, X4PAR2EMP_I, X6PAR2EMP_I, X9PAR2EMP_I)	Parallel employment composite for parent 2.

11.4 Socioeconomic Status (SES) Composites

Variables	Description
x12sesl, x4sesl_i, x9sesl_i (X12SESL, X4SESL_I, X9SESL_I)	NCES socioeconomic status (SES) index. Combines information on parent education, parent occupation, and household income-to-poverty ratio into a standardized continuous SES score. X12SESL is the base-year longitudinal SES; X4SESL_I and X9SESL_I are updated SES composites with imputation for missing components. Exact standardization and weights follow NCES procedures in the manual.

12 School Characteristics: Type, Enrollment, Grades, District Poverty, Locale

12.1 School Type

Variables	Description
x1ksctyp, x2ksctyp, x4sctyp, x6sctyp, x7sctyp, x8sctyp, x9sctyp (X1KSCTYP, X2KSCTYP, X4SCTYP, X6SCTYP, X7SCTYP, X8SCTYP, X9SCTYP)	Type of school attended in each wave (for example, public, private, Catholic, other religious, charter, etc.). Coded using NCES school-type categories.

12.2 Enrollment Status

Variables	Description
x2kenrls, x4enrls, x6enrls, x7enrls_r, x8enrls, x9enrls (X2KENRLS, X4ENRLS, X6ENRLS, X7ENRLS_R, X8ENRLS, X9ENRLS)	Child's enrollment status and regularity in the focal school during each wave (for example, full-time, part-time, not enrolled, or other classification of enrollment status) as defined in the ECLS-K:2011 manual.

12.3 Highest and Lowest Grades Served

Variables	Description
x2higgrd – x9higgrd (X2HIGGRD – X9HIGGRD)	Highest grade offered in the sampled child's school in each wave (for example, grade 5 only, K–5, K–8, etc.).
x2lowgrd – x9lowgrd (X2LOWGRD – X9LOWGRD)	Lowest grade offered in the sampled child's school in each wave (for example, pre-K, K-only, grade 1).

12.4 District Poverty Measure

Variables	Description
x_distpov, x4distpov, x6distpov, x7distpov, x8distpov, x9distpov (X_DISTPOV, X4DISTPOV, X6DISTPOV, X7DISTPOV, X8DISTPOV, X9DISTPOV)	School-district-level poverty indicator or composite (for example, percent of school-age children in poverty or a related index), derived from district-level data linked to the ECLS-K:2011. Exact definition and coding should be confirmed in the district-level section of the NCES documentation.

12.5 School Locale

Variables	Description
x1locale – x9locale (X1LOCALE – X9LOCALE)	NCES school locale code at each wave. Categorizes the school's location as city, suburban, town, or rural (with finer subcategories such as large city, small town, remote rural, etc.) according to NCES urbanicity classifications.

13 Survey Weights

Variables	Description
W1C0	Child assessment weight for wave 1. Used when analyzing child assessment data from fall kindergarten.
W1P0	Parent interview weight for wave 1.
W2P0	Parent interview weight for wave 2.
W12P0	Longitudinal parent weight for analyses using waves 1 and 2.
W4CF4P_20	Longitudinal child+parent weight for spring 2012 (wave 4, first grade) based on the 2015/2016 data file revision (suffix _20).
W6CS6P_20	Longitudinal child+parent weight for spring 2013 (wave 6, second grade).
W7C7P_20	Longitudinal child+parent weight for spring 2014 (wave 7, third grade).
W9C9P_20	Longitudinal child+parent weight for spring 2016 (wave 9, fifth grade).

14 Teacher-Rated Social-Emotional Scales

These composites are based on teacher questionnaires and summarize child behavior and approaches to learning.

14.1 Approaches to Learning

Variables	Description
X1TCHAPP, X2TCHAPP, X4TCHAPP, X6TCHAPP	Teacher-rated "Approaches to Learning" composite. Includes items on attentiveness, task persistence, organization, eagerness to learn, and independence. Higher values indicate more positive approaches to learning.

14.2 Self-Control / Conduct

Variables	Description
X1TCHCON, X2TCHCON, X4TCHCON, X6TCHCON	Teacher-rated self-control composite (sometimes described as conduct problems in reverse). Items include control of temper, respect for property, and following rules. Higher scores indicate better self-control and fewer behavior problems.

14.3 Externalizing Behavior

Variables	Description
X1TCHEXT, X2TCHEXT, X4TCHEXT, X6TCHEXT	Teacher-rated externalizing behavior composite. Includes behaviors such as arguing, fighting, acting impulsively, and disturbing others. Higher values indicate more externalizing behavior.

14.4 Internalizing Behavior

Variables	Description
X1TCHINT, X2TCHINT, X4TCHINT, X6TCHINT	Teacher-rated internalizing behavior composite. Includes items on anxiety, sadness, loneliness, and withdrawal. Higher scores indicate more internalizing symptoms.

15 Attention and Inhibitory Control

These measures are based on temperament/behavior scales in early childhood and the Temperament in Middle Childhood Questionnaire (TMCQ) in fifth grade.

Variables	Description
X1ATTNFS, X2ATTNFS	Teacher-rated "Attentional Focus" composite in kindergarten. Higher scores indicate better ability to maintain attention on tasks.
X4KATTNFS	Kindergarten-anchored attentional focus score, used in longitudinal analyses to provide a consistent K-based reference.
X4ATTNFS	Updated attentional focus composite at wave 4 (spring first grade), based on teacher ratings in that year.
X9ATTMCQ	Attentional focus/completion composite from the middle-childhood TMCQ at wave 9. Captures similar constructs of sustained attention and ability to stay on task.
X1INBCNT, X2INBCNT	Teacher-rated "Inhibitory Control" composite in kindergarten, reflecting the child's ability to stop or delay an action, wait their turn, and regulate impulses. Higher scores indicate better inhibitory control.
X4KINBCNT	Kindergarten-anchored inhibitory control score for longitudinal comparisons.
X4INBCNT	Inhibitory control composite based on teacher ratings at wave 4.
X9INTMCQ	TMCQ inhibitory or intentional control composite at wave 9, providing a middle-childhood measure of inhibitory control aligned with the TMCQ framework.

16 Teacher–Child Relationship Quality

Variables	Description
X2CLSNSS, X4CLSNSS, X6CLSNSS, X7CLSNSS	Teacher–child relationship "Closeness" composite. Captures warmth, open communication, affection, and positive teacher–child interactions. Higher scores indicate greater closeness.

X2CNFLCT, X4CNFLCT, X6CNFLCT, X7CNFLCT	Teacher–child relationship "Conflict" composite. Captures frequency of negative interactions, tension, and disagreements between teacher and child. Higher scores indicate more conflict.

17 Child Age, Race/Ethnicity, First-Kindergarten Indicator, Parent-Type Composite

Variables	Description
X1KAGE_R, X2KAGE_R	Child age in months at the time of assessment in waves 1 and 2 (recode). Based on date of birth and assessment date.
X_RACETHP_R	Race/ethnicity composite combining race and Hispanic origin into mutually exclusive categories (for example, Hispanic, non-Hispanic White, non-Hispanic Black, Asian, other).
X1FIRKDG	Indicator for whether the fall kindergarten year (wave 1) is the child's first time in kindergarten (versus repeating kindergarten).
X1HPARNT, X2HPARNT, X4HPARNT, X6HPARNT, X7HPARNT	Household parent-type composite indicating which kinds of parents or guardians live with the study child at each wave. Coding: • 1 = two biological/adoptive parents • 2 = one biological/adoptive parent and one other parent/partner • 3 = one biological/adoptive parent only • 4 = other guardian(s) (for example, grandparents, other relatives, foster parents, etc.)

18 Food Insecurity Composites

Food insecurity variables are formed from parent responses to an 18-item household food security module, separated into adult-referenced items and child-referenced items, and then combined.

18.1 Adult-Referenced Food Security

Variables	Description
X2FSADRA2, X4FSADRA2, X7FSADRA2, X8FSADRA2, X9FSADRA2	Adult food security raw score. Simple count of the number of adult/household-referenced food security items affirmed by the parent (worries about food running out, adults cutting meal size, adults skipping meals, etc.). Range is 0–10 in the full scale.
X2FSADSC2, X4FSADSC2, X7FSADSC2, X8FSADSC2, X9FSADSC2	Adult food security scale score. A continuous measure derived from the adult items using NCES/USDA scaling procedures (intended to approximate an interval scale).
X2FSADST2, X4FSADST2, X7FSADST2, X8FSADST2, X9FSADST2	Adult food security status. Categorical classification based on the adult raw score (for example, high food security, marginal food security, low food security, very low food security), following USDA thresholds.

18.2 Child-Referenced Food Security

Variables	Description
X2FSCHRA, X4FSCHRA, X9FSCHRA	Child food security raw score. Count of the number of child-referenced food security items affirmed by the parent (for example, child not eating enough, child skipping meals). Potential range is 0–8.
X2FSCHSC, X4FSCHSC, X9FSCHSC	Child food security scale score. Continuous measure derived from the child-specific items.
X2FSCHST, X4FSCHST, X9FSCHST	Child food security status. Categorical classification of child food security (high, marginal, low, very low), based on the child raw score and standard USDA thresholds.

18.3 Combined Adult + Child Food Security

Variables	Description

X2FSRAW2, X4FSRAW2, X9FSRAW2	Total household food security raw score, combining both adult and child items (simple count of affirmed items). Potential range is 0–18; in wave 9 X9FSRAW2 ranges from 0 to 17. The raw score is an ordinal measure of severity and should not be treated as interval for means. Responses skipped due to screening are assumed negative. When some items are missing but at least one valid item is present, missing responses are treated as negative. Cases with no valid responses are coded −9 (not ascertained).
X2FSSCAL2, X4FSSCAL2, X9FSSCAL2	Overall household food security scale score, a continuous measure derived from the combined adult+child items.
X2FSSTAT2, X4FSSTAT2, X9FSSTAT2	Overall household food security status. Categorical measure classifying households as high, marginal, low, or very low food security based on the overall raw score.

19 Variables to Double-Check in the Full Manual

All variables above are matched to their official roles in the ECLS-K:2011 system. For some composites, the general meaning is clear but the *exact* cutpoints or scaling details require the full NCES manual or technical appendices. These are:

- Income-to-poverty categories: X2INCCAT_I, X4INCCAT_I, X6INCCAT_I, X7INCCAT_I, X8INCCAT_I, X9INCCAT_I
- SES composite construction: X12SESL, X4SESL_I, X9SESL_I
- District poverty indicators: X_DISTPOV, X4DISTPOV, X6DISTPOV, X7DISTPOV, X8DISTPOV, X9DISTPOV
- Detailed USDA cutpoints and exact item sets for FSADRA2, FSADSC2, FSADST2, FSCHRA, FSCHSC, FSCHST, FSRAW2, FSSCAL2, FSSTAT2
- Item-level content and scaling details for the attention and inhibitory-control composites (ATTNFS, INBCNT, ATTMCQ, INTMCQ) and the teacher social-emotional scales (TCHAPP, TCHCON, TCHEXT, TCHINT)