10. INDIRECT ASSESSMENTS OF THE CHILD IN THE PARENT INTERVIEW

The Early Childhood Longitudinal Study, Birth Cohort (ECLS-B) 2-year parent interview also included three sets of questions that obtained indirect assessments of the child's behavior from the parent respondent: a set of questions about the age at which the child reached certain developmental milestones, a set of questions about the child's self-regulation ability and sensory integration, and a set of questions about the child's vocabulary and language ability. The following sections discuss the rationale for these sets of questions, summarize the items, and present descriptive statistics for key demographic groups.

10.1 Developmental Milestones

The first indirect assessment was a set of six questions that asked the parent respondent about the age at which the child first reached developmental milestones common to the 2-year age range. A developmental milestone is a set of functional skills, or age-specific abilities, that most children can do by a certain age, for example, taking first steps on own, saying first word. Although each developmental milestone has an age level at which it is typically reached, the actual age at which a normally developing child reaches that milestone can vary quite a bit. Developmental milestones serve as reference points or benchmarks that parents, health care professionals, psychologists, and teachers can use to help check how a child is developing.

It is commonly presumed that early attainment of milestones is associated with positive outcomes and that later achievement of developmental milestones is associated with poorer developmental status and child outcomes in later years. However, until the ECLS-B, no national norms had been available to support the association of early milestone achievement with subsequent positive outcomes. Nor is there any accessible empirical evidence to suggest that early or timely achievement of developmental milestones has any bearing on future developmental status, although ample evidence supports the association between late achievement of milestones (e.g., as is common in children with Down syndrome) and poorer developmental status in later years.

To identify key developmental milestones for the 23- to 25-month age range, the Minnesota Child Development Inventory (MN-CDI) (Ireton 1997) was reviewed as a source for items, as it had been

for the 9-month data collection. For further information about the five developmental milestone items in the 9-month data collection, please refer to the *ECLS-B Methodology Report for the Nine-Month Data Collection (2001–02), Volume 1: Psychometric Characteristics* (NCES 2005–100) (Andreassen and Fletcher 2005). For obvious reasons, the milestones selected for 9 months are not appropriate at 2 years. Therefore, the age ranges in the MN-CDI manual were reviewed and key milestones that were age appropriate, easily understood, and salient to parents were selected for inclusion in the ECLS-B at 2 years. It was important that the milestones selected be particularly salient for parents who would be formulating their answers retrospectively. In addition, it was important that the response options be straightforward and not lead to embarrassment if the child had not yet reached certain milestones.

The results of field testing and supplementary review of the MN-CDI for redesign of the parent interview for 2 years determined that the following items most successfully obtained information about the age at which the child first performed the milestone:

- P2WLKSTR: How old was child in months when he/she started walking up stairs alone?
- P2FRSTWD: How old was child in months when he/she started saying words?
- P2TRNPGS: How old was child in months when he/she started turning the pages of a picture book, one at a time?
- P2DRKNB: How old was child in months when he/she started opening a door by turning the knob and pulling?
- P2PLYOH: How old was child in months when he/she started playing with other children, doing things with them (e.g., cars, dolls, building)?
- P2PLYOB: How old was child in months when he/she starting using an object as if it were something else (e.g., using a block for a phone, using a cardboard box for a car or a doll bed, using a napkin for a doll blanket)?

Table 10-1 presents the percentages of sample children who had reached each milestone at the time of the child assessment, as well as the percentages who had not yet reached each milestone. To obtain these weighted percentages, all cases with missing data were omitted. This information is presented in this table to highlight that not all children in the ECLS-B had reached all the milestones by the time of the home visit. Information about the ages at which children passed each milestone is presented in table 10-2. No comparable national norms are available for these milestones.

Table 10-1. Weighted percentages of children who have reached and have not yet reached developmental milestones by the time of assessment in the 2-year data collection, with item names and descriptions, 2-year data collection: 2003–04

Developmental milestone	Description of milestone	Reached milestone		Not yet reached milestone	
		Number	Weighted percent	Number	Weighted percent
P2WLKSTR	First started walking upstairs alone	9,000	93.89	800	6.11
P2FRSTWD	Started saying first words	9,650	99.46	100	0.54
P2TRNPGS	Started turning pages of book one at a time	9,250	96.02	450	3.98
P2DRKNB	Started opening door by turning knob	7,550	80.22	2,250	19.78
P2PLYOH	Started playing with other children	9,400	96.83	400	3.17
P2PLYOB	Started using as object as if it were something else	9,100	94.31	650	5.69

NOTE: The parent weight, W2R0, was used to obtain these statistics. Cell counts are unweighted to show the distribution in the ECLS-B 2-year data collection. Detail may not sum to total due to rounding. Sample sizes have been rounded to the nearest 50.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), 2-year data collection, 2003–04.

Table 10-2 presents the average ages (weighted means and standard deviations) at which children reached each developmental milestone by the time of the home visit for the total sample and by demographic grouping variables. To obtain these statistics, all cases with missing data were omitted. The weighted means suggest that, for example, girls tend to start walking up stairs at slightly younger ages than boys, at 15.32 months of age for girls and 15.39 months of age for boys. Black children start to play with other children at an average of 12.02 months of age, whereas White children start to play with other children at an average of 14.20 months of age.

Table 10-2. Average age weighted means and standard deviations for developmental milestones, by key demographic characteristics, 2-year data collection: 2003–04

Demographic characteristics	Developmental milestones																	
	Walked up stairs alone (P2WLKSTR)			Started saying first words (P2FRSTWD)			Turned pages of book (P2TRNPGS)			Opened door by turning knob (P2DRKNB)			Played with other children (P2PLYOH)			Played with object (P2PLYOB)		
	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD
Total score	9,000	15.36	3.75	9,650	11.11	3.86	9,250	13.72	4.12	7,550	18.44	3.94	9,400	13.55	4.53	9,100	15.30	4.15
Mother's race/ethnicity[1]																		
White	4,100	15.95	3.62	4,500	11.09	3.81	4,350	14.01	4.10	3,400	19.07	3.61	4,350	14.14	4.55	4,250	15.92	3.97
Black	1,400	14.29	3.84	1,550	10.82	3.77	1,450	13.30	4.02	1,200	17.35	4.33	1,500	11.97	4.20	1,450	14.09	4.35
Hispanic, race specified	1,550	14.57	3.72	1,650	11.26	4.00	1,600	13.28	4.16	1,300	17.64	4.10	1,600	13.07	4.36	1,550	14.56	4.21
Hispanic, no race specified	50	13.77	2.88	50	12.30	4.95	50	12.77	4.08	50	16.65	4.22	50	12.33	3.95	50	13.02	2.38
Asian	1,150	14.86	3.74	1,200	11.43	3.81	1,150	13.70	4.23	1,050	18.11	4.00	1,150	14.05	4.35	1,150	15.36	3.96
Native Hawaiian/ Pacific Islander	50	15.48	3.87	50	10.82	3.04	50	12.79	4.18	50	18.07	3.91	50	13.29	4.89	50	14.76	4.16
American Indian/ Alaska Native	350	15.65	3.52	350	11.12	3.89	350	13.77	3.97	250	18.93	3.80	350	13.37	4.67	350	15.26	4.33
More than 1 race	250	16.06	3.81	250	11.55	4.09	250	13.87	4.21	200	19.10	4.22	250	12.73	5.24	250	15.24	4.55
Poverty status																		
Below poverty threshold	2,000	14.54	3.70	2,150	10.89	4.10	2,000	13.71	4.20	1,650	17.92	4.28	2,100	12.78	4.49	2,050	14.50	4.28
At or above poverty threshold	7,000	15.58	3.73	7,500	11.18	3.79	7,250	13.73	4.10	5,900	18.58	3.83	7,300	13.76	4.52	7,100	15.53	4.09

See notes at end of table.

Table 10-2. Average age weighted means and standard deviations for developmental milestones, by key demographic characteristics, 2-year data collection: 2003–04—Continued

Demographic characteristics	Developmental milestones																	
	Walked up stairs alone (P2WLKSTR)			Started saying first words (P2FRSTWD)			Turned pages of book (P2TRNPGS)			Opened door by turning knob (P2DRKNB)			Played with other children (P2PLYOH)			Played with object (P2PLYOB)		
	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD
Child's race/ethnicity[1]																		
White	3,750	15.96	3.61	4,100	11.10	3.83	3,950	13.99	4.11	3,050	19.08	3.62	4,000	14.21	4.59	3,850	15.95	3.96
Black	1,400	14.40	3.89	1,500	10.82	3.78	1,400	13.32	4.01	1,200	17.40	4.33	1,500	12.02	4.26	1,400	14.11	4.35
Hispanic, race specified	1,300	14.72	3.75	1,350	11.30	3.98	1,300	13.34	4.18	1,100	17.70	4.14	1,300	13.11	4.17	1,300	14.68	4.17
Hispanic, no race specified	550	14.57	3.62	600	11.13	3.93	600	13.36	4.09	450	17.84	4.00	600	12.95	4.53	550	14.42	4.13
Asian	950	14.73	3.71	1,000	11.21	3.76	1,000	13.58	4.27	900	18.00	4.06	1,000	13.75	4.31	950	15.22	3.95
Native Hawaiian/ Pacific Islander	50	15.60	3.78	50	10.24	2.96	50	14.38	5.29	50	17.25	4.21	50	10.99	3.20	50	14.93	4.61
American Indian/ Alaska Native	250	15.85	3.71	250	11.38	4.26	250	14.14	4.17	200	18.69	3.92	250	13.82	4.74	250	15.18	4.18
More than 1 race	700	15.51	3.81	700	11.39	3.94	700	13.80	4.04	550	18.68	3.83	700	13.18	4.53	650	15.29	4.44
Child's sex																		
Male	4,550	15.39	3.74	4,900	11.48	4.00	4,700	13.95	4.17	3,950	18.36	3.95	4,800	13.62	4.52	4,650	15.48	4.20
Female	4,400	15.32	3.76	4,750	10.73	3.67	4,550	13.49	4.05	3,600	18.53	3.93	4,600	13.47	4.54	4,450	15.15	4.10
Child's age at assessment																		
21 months and under	#	14.55	2.69	#	8.04	4.24	#	14.54	3.94	#	15.10	1.56	#	11.77	2.11	#	14.44	3.96
22–23 months	850	15.04	3.43	950	11.12	3.88	900	13.57	4.10	700	17.93	3.76	900	13.24	4.27	900	15.06	3.88
24–25 months	6,800	15.40	3.70	7,300	11.07	3.79	6,950	13.74	4.08	5,650	18.39	3.82	7,100	13.56	4.48	6,850	15.33	4.09
26–27 months	1,000	15.39	4.11	1,050	11.34	4.17	1,050	13.63	4.20	900	18.93	4.44	1,050	13.76	4.90	1,050	15.38	4.48
28 months and over	300	15.40	4.40	350	11.38	4.20	300	14.16	4.84	300	19.27	4.81	300	13.76	5.20	300	15.26	5.15

See notes at end of table.

Table 10-2. Average age weighted means and standard deviations for developmental milestones, by key demographic characteristics, 2-year data collection: 2003–04—Continued

Demographic characteristics	Developmental milestones																	
	Walked up stairs alone (P2WLKSTR)			Started saying first words (P2FRSTWD)			Turned pages of book (P2TRNPGS)			Opened door by turning knob (P2DRKNB)			Played with other children (P2PLYOH)			Played with object (P2PLYOB)		
	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD
Child's birth weight																		
Normal	6,750	15.32	3.74	7,100	11.06	3.83	6,850	13.70	4.11	5,850	18.41	3.94	6,950	13.55	4.53	6,750	15.30	4.14
Moderately low	1,400	15.56	3.74	1,500	11.45	4.04	1,400	13.87	4.15	1,100	18.76	3.94	1,450	13.34	4.53	1,400	15.17	4.26
Very low	800	17.25	3.90	1,000	13.09	4.27	950	14.86	4.26	600	19.19	3.94	950	14.55	4.79	900	16.34	4.22
Mother's age (in years)																		
19 and under	300	14.41	3.56	350	10.25	3.84	300	13.56	4.34	250	18.30	4.25	300	12.83	4.29	300	14.61	4.38
20–29	4,050	15.20	3.76	4,300	10.78	3.79	4,100	13.60	4.02	3,350	18.40	4.00	4,200	13.18	4.38	4,050	14.99	4.14
30–39	3,900	15.57	3.75	4,250	11.45	3.89	4,100	13.84	4.19	3,350	18.51	3.88	4,100	14.03	4.69	4,000	15.70	4.13
40 and over	650	15.63	3.73	750	11.77	3.90	700	13.90	4.25	600	18.37	3.68	700	13.54	4.42	650	15.37	4.07
Mother's education																		
8th grade or below	400	14.14	3.74	450	11.30	4.24	450	13.40	4.50	350	17.41	4.28	450	13.15	4.27	400	14.29	4.37
9–12th grades	1,800	14.58	3.77	1,950	10.62	3.91	1,850	13.30	4.08	1,500	17.84	4.27	1,900	12.68	4.33	1,850	14.59	4.27
High school diploma	1,900	14.98	3.75	2,050	11.01	3.80	1,950	13.70	4.06	1,550	18.36	4.15	2,050	12.92	4.37	1,950	14.84	4.18
Vocational/technical	150	15.80	3.11	200	11.39	3.76	200	14.48	4.20	150	19.27	3.49	200	13.84	4.27	200	15.52	3.70
Some college	2,150	15.70	3.67	2,350	11.14	3.91	2,250	13.93	4.02	1,850	18.68	3.66	2,300	13.49	4.53	2,200	15.44	4.01
Bachelor's degree	1,450	16.21	3.63	1,550	11.63	3.76	1,550	13.96	4.22	1,250	18.96	3.64	1,500	14.86	4.63	1,500	16.36	3.99
Graduate school (no degree)	150	16.24	3.56	150	10.85	3.43	150	14.02	3.98	150	18.62	3.45	150	15.16	4.81	150	17.05	3.71
Master's degree	650	16.30	3.62	650	11.46	3.65	650	13.57	4.10	550	19.25	3.34	650	15.15	4.60	650	16.38	3.82
Doctoral/professional degree	200	16.62	3.47	250	11.65	3.27	250	14.39	4.16	200	18.29	3.25	200	15.78	3.95	200	16.18	3.69

Rounds to zero.

[1] Race categories exclude Hispanic origin unless specified.

NOTE: The parent weight, W2R0, was used to obtain these statistics. Cell counts are unweighted to show the distribution in the ECLS-B 2-year data collection. Detail may not sum to total due to rounding. Sample sizes have been rounded to the nearest 50.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), 2-year data collection, 2003–04.

10.2 Self-Regulatory Skills (Infant/Toddler Symptom Checklist)

The second set of indirect assessment questions were obtained from the *Infant/Toddler Symptom Checklist* (ITSC) (DeGangi et al. 1995). This checklist is a screener that was designed to be completed by parents and obtains information about children's self-regulatory behaviors and sensory integration. Sensory experiences include touch, movement, body awareness (proprioception), sight, sound, smell, and taste. Sensory integration is the process of distinguishing among these sensory experiences and is usually automatic and effortless. Children with sensory integration disorder may have difficulty achieving this integration or may achieve it only through extensive effort, attention, and frustration. For children with sensorimotor integration problems, sensory information, such as touch, sound, and movement, is misinterpreted for various neurophysiological reasons, for example, clothing tags at the back of the neckline are experiences as quite aversive to children with some types of sensorimotor integration problems. This neurophysiological misinterpretation, in turn, can lead to behavioral problems, difficulties with motor planning, motor coordination, and many other issues, including sustained attention, executive processing and, more generally, learning (Ayres 1979; Fisher, Murray, and Bundy 1991).

During the 9-month data collection, there were seven ITSC items in the parent computer-assisted personal interview (CAPI) instrument that were appropriate for this age range. There were two criteria for item selection. First, items were selected for their ability to identify children with sensorimotor and self-regulatory difficulties that are associated with attention or behavior problems or both, in the preschool years and later. In addition, items were chosen on the basis of the salience of the behavior to the parent, who would be recalling the information retrospectively; the parent had to be able to recognize the behavior clearly in order to report it accurately. The same criteria were used to select items for the 2-year data collection.

The ITSC was designed for the 7- to 30-month age range, and there are five age-appropriate versions (e.g., 7–9 months, 10–12 months). There are two age-appropriate versions that are relevant to the 2-year data collection: the 19- to 24-month version and the 25- to 30-month version. In the 19- to 24-month version, the full ITSC includes 23 items. In the 25- to 30-month version, the full ITSC includes 18 items. There are only seven items common to both the 19- to 24-month version and the 25- to 30-month version. The full complement of unique items would total 34 items, which would be too lengthy for the purpose of the ECLS-B. Therefore, a subset of seven items was selected for the ECLS-B Parent CAPI Instrument on the basis of the items' ability to identify children with regulatory disorders. The

items selected for the 2-year data collection cover the domains of self-regulation, irritability, sleep difficulty, distractibility, and attending. Parents were asked how often their children were like the descriptions in each item. They indicated whether the child is "never" like this (0), "used to be" like this but is no longer (1), is "sometimes" like this (2), or is like this "most times" (3). The ECLS-B rating for these items could, therefore, range from 0 to 3. The items chosen include the following:

- P2FUSSY: Child is frequently irritable or fussy.
- P2WHMPR: Child goes easily from a whimper to an intense cry.
- P2UNBWT: Child is unable to wait for food or toys without crying or whining/falling apart.
- P2DSTRCT: Child is easily distractible or has fleeting attention.
- P2HLPSLP: Child needs a lot of help to fall asleep (e.g., rocking, long walks, stroking hair, car rides, etc.).
- P2TUNOUT: Child tunes out from activity and is difficult to re-engage.
- P2SFTFOC: Child can't shift focus easily from one project or activity to another.

These items were selected because they were identified in the ITSC manual as among those that are most successful at differentiating children with regulatory disorders from children without such disorders at this age. In addition, they were selected because these behaviors are salient to parents and easily reportable. The ITSC manual (DeGangi et al. 1995) presents age-specific summary tables for each item's ability to differentiate children who have regulatory disorders from children who do not have regulatory disorders. The tables for the 19- to 24-month version and the 25- to 30-month version were consulted because they were age appropriate. Table 10-3 presents a summary of the ITSC items selected from the two age-specific versions that were most successful at differentiating children with regulatory disorders from children without regulatory disorders. The column titled *t* value refers to the value of *t* that was obtained on a *t* test. Items were chosen that had a significant difference on the *t* test and that would be likely to be observed and reported by parents.

The analyst may want to conduct a factor analysis to explore the possibility of combining items to represent a particular construct in the 2-year ITSC data. Table 10-4 presents the 2-year ITSC item frequency distributions for the sample as a whole.

As described in the manual accompanying the ITSC, it is used to screen children who may be at risk and, therefore, would benefit from an intervention program. The manual presents age-appropriate cut-off scores by which to determine whether a child is at risk. However, the ECLS-B only uses about half of the items in the full ITSC. The analyst may want to consider prorating the summed scores and determining a prorated cut-off score by which to determine risk. Refer to the ITSC manual (DeGangi et al. 1995) for further information as well as to the *User's Manual for the ECLS-B Longitudinal 9-Month–2-Year Data File and Electronic Codebook* (NCES 2006–046) (Nord et al. 2006) for further information about how the ITSC scores can be used.

Table 10-3. Differentiation of regulatory disordered children by items from the 19- to 24-month and 25- to 30-month versions of the Infant/Toddler Symptom Checklist in the ECLS-B: 2003–04

Variable name	ITSC item description	Mean score for children without regulatory disorders	Mean score for children with regulatory disorders	*t* value[1]	df
P2FUSSY	Child is frequently irritable, fussy	.10	.93	-5.46 *	43
P2WHMPR	Child goes easily from a whimper to an intense cry	.20	.85	-4.65 *	41
P2UNBWT	Child is unable to wait for food or toys without falling apart	.13	1.15	-4.75 *	41
P2DSTRCT	Child is easily distractible or has fleeting attention	.20	.85	-2.63 *	43
P2HLPSLP	Child needs help to fall asleep	.35	.79	-2.10 *	43
P2TUNOUT	Child tunes out from activity, is difficult to reengage	.03	.29	-2.14 *	43
P2SFTFOC	Child can't shift focus easily from one project or activity to another	.03	.50	-2.94 *	43

* $p < .05$.

[1] The *t* test statistic presented here indicates whether the item significantly differentiated children who have a regulatory disorder from children who do not have a regulatory disorder.

NOTE: These results are published in the manual for the ITSC (DeGangi et al. 1995) and are not from ECLS-B data. Values range from 0 (Child is never like this) to 3 (Child is like this most times).

SOURCE: DeGangi, G. A., Poisson, S., Sickel, R. Z., and Weiner, A. S. (1995). *Infant/Toddler Symptom Checklist: A Screening Tool for Parents*. San Antonio, Texas: Therapy Skill Builders, a division of The Psychological Corporation.

Table 10-4. Self-regulatory item frequency distributions for the total sample, 2-year data collection: 2003–04

Variable name	Response option	Number	Weighted percent
P2FUSSY	(0) Never	2,250	23.83
	(1) Used to be	600	5.44
	(2) Sometimes	6,200	63.06
	(3) Most times	800	7.68
P2WHMPR	(0) Never	3,800	41.76
	(1) Used to be	750	7.06
	(2) Sometimes	4,200	40.54
	(3) Most times	1,100	10.63
P2UNBWT	(0) Never	2,550	27.46
	(1) Used to be	700	7.02
	(2) Sometimes	4,850	49.60
	(3) Most times	1,700	15.92
P2DSTRCT	(0) Never	2,500	25.87
	(1) Used to be	550	5.44
	(2) Sometimes	4,950	50.41
	(3) Most times	1,800	18.28
P2HLPSLP	(0) Never	5,650	58.11
	(1) Used to be	950	9.45
	(2) Sometimes	1,900	19.31
	(3) Most times	1,350	13.13
P2TUNOUT	(0) Never	4,750	50.12
	(1) Used to be	450	4.47
	(2) Sometimes	3,950	39.31
	(3) Most times	650	5.89
P2SFTFOC	(0) Never	4,900	52.96
	(1) Used to be	450	4.89
	(2) Sometimes	3,700	35.46
	(3) Most times	750	6.70

NOTE: The parent weight, W2R0, was used to obtain these statistics. Cell counts are unweighted to show the distribution in the ECLS-B 2-year data collection. Detail may not sum to total due to rounding. Sample sizes have been rounded to the nearest 50.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), 2-year data collection, 2003–04.

To examine how the items evaluating children's self-regulatory skills performed during the 2-year national data collection, the weighted means and standard deviations of each item were obtained for the total sample and for the key demographic variables. To obtain these statistics, the parent weight, W2R0, was applied and all cases with missing data were omitted. These statistics are presented in table 10-5. The weighted means demonstrate that there is variability across the items as well as across different demographic variables. For example, children born with very low birth weight (less than or equal to 1,500 grams) are more easily distractible (P2DSTRCT) than children born at greater than 1,500 grams, with an average of 1.80 versus 1.60 for children born at normal birth weight. In addition, children living below poverty level tend have higher average scores on all but one (P2HLPSLP) of the self-regulation items than those at or above poverty threshold.

10.3 Toddler Vocabulary

The acquisition of language is such an important developmental milestone that it deserves a measurement tool of its own. In fact, the transition from preverbal to verbal communication is so important that it marks the boundary between (preverbal) infancy and (verbal) toddlerhood. Children learn language at different rates, some early and quickly, some later and more slowly, so that the range of words acquired by a certain age is broad, with estimates ranging from 10 words acquired by 13 to 15 months and 50 words acquired by 10 to 24 months (Nelson 1973; Fenson et al. 1994). As reported on the Child Language Data Exchange System website (http://childes.psy.cmu.edu/), from 24 to 36 months language acquisition is rapid and accelerates steeply, so that a plausible estimate would be an average of 10 new words a day during the preschool and early school years.

Children learn language at different rates. Diary studies (e.g., Nelson 1973) and studies of the language environment in the home (e.g., dinner conversation studies, Beals and Snow 1994) have shown that language acquisition can be influenced by social factors. Therefore, the 2-year data collection of the ECLS-B is well served by the inclusion of a measure of the child's language acquisition and word use. A measure of children's language acquisition enables analysts to examine the variables in children's environments that contribute to higher rates of word learning, which, in turn, is presumed to be related to children's subsequent adjustment to and achievement in the early school years.

Table 10-5. Weighted means and standard deviations for children's self-regulatory behaviors, by key demographic characteristics, 2-year data collection: 2003–04

Demographic characteristics	Self-regulatory behaviors																				
	Frequency irritability (P2FUSSY)			Goes easily from whimper to intense cry (P2WHMPR)			Unable to wait for food or toys (P2UNBWT)			Easily distractible/ fleeting attention (P2DSTRCT)			Needs help to fall asleep (P2HLPSLP)			Tunes out from activity (P2TUNOUT)			Can't shift focus easily (2SFTFOC)		
	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD
Total score	9,850	1.55	0.94	9,850	1.20	1.10	9,850	1.54	1.06	9,850	1.61	1.06	9,850	0.87	1.13	9,800	1.01	1.06	9,800	0.96	1.07
Mother's race/ethnicity[1]																					
White	4,600	1.54	0.90	4,600	1.11	1.09	4,600	1.52	1.03	4,600	1.56	1.05	4,600	0.92	1.14	4,600	0.92	1.04	4,600	0.82	1.03
Black	1,550	1.70	0.90	1,550	1.40	1.09	1,550	1.74	1.03	1,550	1.76	1.03	1,550	0.80	1.09	1,550	1.16	1.08	1,550	1.14	1.08
Hispanic, race specified	1,650	1.45	1.02	1,600	1.28	1.12	1,650	1.49	1.11	1,650	1.64	1.08	1,650	0.77	1.11	1,650	1.14	1.11	1,650	1.17	1.12
Hispanic, no race specified	50	1.46	1.12	50	0.98	1.10	50	1.16	1.23	50	1.54	1.02	50	0.80	1.13	50	1.00	1.13	50	1.26	1.21
Asian	1,200	1.47	0.95	1,200	1.32	1.04	1,200	1.51	1.05	1,200	1.53	1.06	1,200	1.10	1.23	1,200	1.12	1.04	1,200	1.15	1.08
Native Hawaiian/ Pacific Islander	50	1.54	0.89	50	1.73	0.88	50	1.19	1.04	50	1.83	0.81	50	0.80	1.00	50	1.23	0.99	50	1.40	1.01
American Indian/ Alaska Native	350	1.76	0.82	350	1.34	1.11	350	1.64	1.05	350	1.65	1.08	350	0.90	1.08	350	0.89	1.06	350	1.00	1.05
More than 1 race	250	1.57	0.95	250	1.32	1.05	250	1.50	1.12	250	1.62	1.04	250	0.89	1.10	250	0.98	1.01	250	0.84	1.04
Poverty status																					
Below poverty threshold	2,200	1.63	0.96	2,200	1.40	1.11	2,200	1.63	1.10	2,200	1.71	1.09	2,200	0.84	1.11	2,200	1.13	1.10	2,200	1.16	1.10
At or above poverty threshold	7,650	1.52	0.93	7,650	1.14	1.09	7,650	1.52	1.04	7,650	1.58	1.05	7,650	0.88	1.14	7,600	0.98	1.05	7,650	0.90	1.06

See notes at end of table.

Table 10-5. Weighted means and standard deviations for children's self-regulatory behaviors, by key demographic characteristics, 2-year data collection: 2003–04—Continued

Demographic characteristics	Self-regulatory behaviors																				
	Frequency irritability (P2FUSSY)			Goes easily from whimper to intense cry (P2WHMPR)			Unable to wait for food or toys (P2UNBWT)			Easily distractible/ fleeting attention (P2DSTRCT)			Needs help to fall asleep (P2HLPSLP)			Tunes out from activity (P2TUNOUT)			Can't shift focus easily (2SFTFOC)		
	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD
Child's race/ethnicity[1]																					
White	4,200	1.54	0.90	4,200	1.10	1.09	4,200	1.52	1.03	4,200	1.56	1.05	4,200	0.91	1.14	4,200	0.91	1.03	4,200	0.81	1.03
Black	1,550	1.70	0.91	1,550	1.40	1.09	1,550	1.73	1.04	1,550	1.75	1.03	1,550	0.81	1.10	1,550	1.17	1.08	1,550	1.14	1.08
Hispanic, race specified	1,350	1.45	0.99	1,350	1.25	1.11	1,350	1.47	1.10	1,350	1.65	1.07	1,350	0.81	1.11	1,350	1.08	1.09	1,350	1.12	1.10
Hispanic, no race specified	600	1.53	1.04	600	1.28	1.13	600	1.48	1.13	600	1.65	1.09	600	0.79	1.14	600	1.22	1.12	600	1.21	1.14
Asian	1,050	1.45	0.95	1,050	1.37	1.03	1,050	1.49	1.07	1,050	1.51	1.07	1,050	1.08	1.23	1,050	1.14	1.04	1,050	1.19	1.08
Native Hawaiian/ Pacific Islander	50	1.67	0.88	50	1.36	1.11	50	1.26	1.19	50	1.65	0.96	50	1.02	1.23	50	1.67	0.98	50	1.22	1.04
American Indian/ Alaska Native	250	1.73	0.86	250	1.51	1.04	250	1.57	1.12	250	1.73	1.10	250	0.84	1.07	250	1.07	1.12	250	0.98	1.04
More than 1 race	750	1.56	0.94	750	1.25	1.07	750	1.59	1.06	750	1.59	1.06	750	0.90	1.16	750	0.98	1.04	750	0.92	1.04
Child's sex																					
Male	5,050	1.56	0.93	5,050	1.19	1.10	5,050	1.59	1.05	5,000	1.68	1.05	5,000	0.87	1.13	5,000	1.06	1.07	5,000	0.99	1.08
Female	4,800	1.53	0.94	4,800	1.21	1.10	4,800	1.49	1.06	4,800	1.54	1.06	4,800	0.88	1.13	4,800	0.96	1.05	4,800	0.92	1.06
Child's age at assessment																					
21 months and under	#	2.04	0.62	#	1.54	0.97	#	2.31	0.63	#	2.10	0.30	#	1.73	1.18	#	1.47	0.93	#	1.78	1.11
22–23 months	950	1.49	0.96	950	1.21	1.10	950	1.61	1.06	950	1.62	1.06	950	0.83	1.12	950	1.09	1.07	950	1.03	1.08
24–25 months	7,400	1.57	0.92	7,400	1.20	1.09	7,400	1.54	1.05	7,400	1.63	1.05	7,400	0.89	1.14	7,400	1.00	1.06	7,400	0.95	1.07
26–27 months	1,100	1.47	0.98	1,100	1.22	1.13	1,100	1.50	1.10	1,100	1.48	1.10	1,100	0.82	1.09	1,100	1.00	1.06	1,100	0.94	1.05
28 months and over	350	1.45	0.99	350	1.15	1.08	350	1.40	1.04	350	1.48	1.06	350	0.84	1.12	350	0.98	1.06	350	0.90	1.04

See notes at end of table.

Table 10-5. Weighted means and standard deviations for children's self-regulatory behaviors, by key demographic characteristics, 2-year data collection: 2003–04—Continued

Demographic characteristics	Self-regulatory behaviors																				
	Frequency irritability (P2FUSSY)			Goes easily from whimper to intense cry (P2WHMPR)			Unable to wait for food or toys (P2UNBWT)			Easily distractible/ fleeting attention (P2DSTRCT)			Needs help to fall asleep (P2HLPSLP)			Tunes out from activity (P2TUNOUT)			Can't shift focus easily (2SFTFOC)		
	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD
Child's birth weight																					
Normal	7,200	1.54	0.94	7,200	1.19	1.10	7,200	1.53	1.05	7,200	1.60	1.06	7,200	0.87	1.13	7,200	1.00	1.06	7,200	0.95	1.07
Moderately low	1,500	1.62	0.92	1,500	1.40	1.10	1,500	1.63	1.08	1,500	1.69	1.05	1,500	0.89	1.14	1,500	1.15	1.09	1,500	1.10	1.10
Very low	1,050	1.58	0.97	1,050	1.30	1.12	1,050	1.67	1.07	1,050	1.80	1.07	1,050	0.89	1.14	1,050	1.18	1.13	1,050	1.20	1.14
Mother's age (in years)																					
19 and under	350	1.62	0.92	350	1.41	1.09	350	1.66	1.05	350	1.96	1.01	350	0.95	1.17	350	1.15	1.10	350	1.02	1.13
20–29	4,400	1.62	0.93	4,400	1.26	1.10	4,400	1.62	1.05	4,400	1.70	1.05	4,400	0.84	1.12	4,400	1.09	1.08	4,400	1.02	1.08
30–39	4,300	1.47	0.94	4,300	1.13	1.09	4,300	1.47	1.06	4,300	1.51	1.06	4,300	0.87	1.13	4,300	0.92	1.04	4,300	0.89	1.06
40 and over	750	1.51	0.93	750	1.12	1.09	750	1.39	1.04	750	1.48	1.05	750	1.09	1.22	750	0.99	1.06	750	0.96	1.08
Mother's education																					
8th grade or below	450	1.40	1.09	450	1.43	1.12	450	1.49	1.15	450	1.73	1.08	450	0.73	1.11	450	1.25	1.13	450	1.19	1.14
9–12th grades	2,000	1.68	0.94	2,000	1.40	1.12	2,000	1.65	1.10	2,000	1.72	1.09	2,000	0.84	1.13	2,000	1.15	1.10	2,000	1.15	1.12
High school diploma	2,100	1.61	0.91	2,100	1.25	1.09	2,100	1.60	1.04	2,100	1.67	1.04	2,100	0.82	1.11	2,100	1.08	1.07	2,100	1.04	1.07
Voc./technical	200	1.57	0.87	200	1.04	1.07	200	1.43	1.07	200	1.69	0.93	200	0.93	1.19	200	1.11	1.07	200	0.81	1.03
Some college	2,350	1.47	0.94	2,350	1.11	1.09	2,350	1.51	1.05	2,350	1.57	1.06	2,350	0.91	1.15	2,350	0.94	1.04	2,350	0.86	1.03
Bachelor's degree	1,600	1.49	0.91	1,600	1.09	1.06	1,600	1.51	0.99	1,600	1.55	1.02	1,600	0.93	1.14	1,600	0.91	1.03	1,600	0.83	1.03
Graduate school (no degree)	150	1.57	0.85	150	1.13	1.04	150	1.43	0.98	150	1.51	1.07	150	0.93	1.10	150	0.88	1.01	150	0.84	1.00
Master's degree	700	1.41	0.90	700	0.86	1.03	700	1.33	1.00	700	1.30	1.04	700	1.03	1.13	700	0.73	0.95	700	0.69	0.99
Doctoral/prof. degree	250	1.41	0.90	250	1.10	1.00	250	1.34	0.99	250	1.34	1.06	250	0.83	1.10	250	0.68	0.98	250	0.55	0.94

Rounds to zero.

[1] Race categories exclude Hispanic origin unless specified.

NOTE: The parent weight, W2R0, was used to obtain these statistics. Cell counts are unweighted to show the distribution in the ECLS-B 2-year data collection. Detail may not sum to total due to rounding. Sample sizes have been rounded to the nearest 50.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), 2-year data collection, 2003–04.

There are a few items in the 2-year Bayley Short Form–Research Edition (BSF-R) that assess children's language use, and scores for these items are represented in children's BSF-R mental scale scores. To supplement information about children's language acquisition, a parent report of children's word use and grammatical constructions is included in the Parent CAPI Instrument. Ideally, the MacArthur Communicative Development Inventory (M-CDI) (Fenson et al. 1994) would have been the best available parent report measure. However, the M-CDI checklist contains well over 400 words, which would be too burdensome and time consuming to incorporate into the ECLS-B home visit.

For this reason, one of the co-authors of the M-CDI, Dr. Philip Dale of the University of Missouri, was contacted and agreed to develop a list of 50 words typically known and said by children in the target age range, as well as a set of items that obtain information about children's syntax use. These 50 words were then incorporated into the Parent CAPI Instrument to be read to the parent by the interviewer. This eliminated any difficulties filling out a checklist by respondents for whom English is not the primary language. Dr. Dale also recommended the set of supplementary items about children's language use, such as the use of irregular plurals and the use of irregular past tense. Therefore, the parent was asked whether the child: (1) could say the target words; (2) could combine words to make phrases or sentences; (3) could add "s" to make nouns plural; (4) could add " 's" to denote ownership; (5) could add "ing" to talk about activities in the present tense; and, (5) could add "ed" to words to talk about the past. In addition, Dr. Dale also provided an equivalent Spanish checklist, which included Spanish words that were appropriate for this age range and that were of approximately the equivalent level of difficulty as the English checklist. For further information about the variable names for these word checklist items and the supplementary syntax items, please refer to the *User's Manual for the ECLS-B Longitudinal 9-Month–2-Year Data File and Electronic Codebook* (NCES 2006–046) (Nord et al. 2006). The frequency distribution and percentages of sample children who had these words and did not have these words in their vocabulary are summarized in table 10-6. Table 10-7 summarizes children's syntax items.

There are no norms based on a nationally representative sample against which to compare the ECLS-B sample children. The best available measure that obtains comparable information is the M-CDI (Fenson et al. 1994), which includes a parent report checklist of the words children can say and the words children can understand. Interested analysts may want to refer to the monograph that describes the development of the M-CDI (Fenson et al. 1994) to see how scores were obtained on this measure. The results from the ECLS-B cannot be compared directly with the norms obtained for the M-CDI because the ECLS-B included only 50 words, whereas the age-appropriate toddler version of the M-CDI includes approximately 400 words from 19 categories.

Table 10-6 presents the (weighted) frequency distribution of children who said each word and did not say each word, as reported by the parent respondent. These distributions show that there is variability in children's vocabularies, ranging from a high of 96.22 percent of children who say "no" (only 3.78 percent do not yet say "no") and a low of 19.00 percent who can say "beside." To obtain these statistics, all cases with missing data were omitted and the parent weight, W2R0, was used.

Table 10-7 presents the frequency distribution of parents' reports of children's use of language rules (syntax) for the total sample. To obtain these statistics, the parent weight, W2R0, was used and all cases with missing data were omitted. However, the cell counts are unweighted in order to demonstrate the distribution in the ECLS-B 2-year data collection.

To examine how the items evaluating the child's vocabulary performed during the 2-year national data collection, the total score for this set of items was obtained by simply summing the number of words the child was able to say. The weighted means and standard deviations for children's total vocabulary score were obtained for the total sample and for the key demographic variables. These results are presented in table 10-8. To obtain these statistics, the parent weight, W2R0, was applied and all cases with missing data were omitted.

Table 10-9 shows the weighted means for the items that assess children's use of language rules (syntax) for the total sample and by demographic variables. To obtain these statistics, the parent weight, W2R0, was used and all cases with missing data were omitted. The cell counts, however, are unweighted in order to demonstrate the distribution in the ECLS-B 2-year data collection. For example, child age at the time of the assessment is associated with use of language rules: children 28 months of age and older score higher on many of these variables than do children who were assessed at 24 to 25 months.

Table 10-6. Frequency distribution of children's vocabulary items in the Parent CAPI Instrument, 2-year data collection: 2003–04

Does child say…	Variable name	Says word		Does not say word	
		Number	Weighted percent	Number	Weighted percent
MEOW	P2SYMEOW	7,600	81.12	2,250	18.88
SHOE	P2SYSHOE	8,550	88.44	1,300	11.56
MOMMY	P2SYMMY	9,300	92.91	550	7.09
FAST	P2SYFAST	4,050	45.74	5,750	54.26
UHOH	P2SYUHOH	9,000	91.14	850	8.86
CHIN	P2SYCHIN	4,350	47.05	5,500	52.95
BYE	P2SYBYE	9,350	95.70	500	4.30
HOT	P2SYHOT	8,450	87.82	1,350	12.18
BEAR	P2SYBEAR	6,300	66.08	3,500	33.92
HAND	P2SYHAND	7,300	77.17	2,550	22.83
NO	P2SYNO	9,400	96.22	450	3.78
TINY	P2SYTINY	2,400	25.76	7,400	74.24
CAT	P2SYCAT	8,100	85.63	1,700	14.37
BROOM	P2SYBRM	4,450	48.02	5,350	51.98
THANK YOU	P2SYTHNK	8,400	87.70	1,450	12.30
AFTER	P2SYAFTR	2,000	24.13	7,800	75.87
DUCK	P2SYDUCK	6,850	71.67	3,000	28.33
MOP	P2SYMOP	4,100	45.19	5,700	54.81
CHASE	P2SYCHS	2,650	30.61	7,150	69.39
TONIGHT	P2SYTNGT	3,650	39.15	6,150	60.85
AIRPLANE	P2SYARPL	6,450	70.18	3,350	29.82
TRASH	P2SYTRSH	6,150	66.01	3,650	33.99
FISH	P2SYFSH	4,500	47.72	5,350	52.28
THEM	P2SYTHEM	2,500	28.73	7,300	71.27
CAR	P2SYCAR	8,550	88.25	1,300	11.75
TOWEL	P2SYTWL	4,950	52.88	4,900	47.12
HUG	P2SYHUG	7,050	73.17	2,800	26.83
US	P2SYUS	3,550	40.20	6,300	59.80
BOOK	P2SYBOOK	8,650	89.96	1,200	10.04
BEDROOM	P2SYBDRM	4,400	48.18	5,450	51.82
LIKE	P2SYLK	4,600	51.22	5,200	48.78
BESIDE	P2SYBSD	1,500	19.00	8,300	81.00
APPLESAUCE	P2SYAPSC	3,550	41.67	6,250	58.33
OVEN	P2SYOVEN	3,900	44.03	5,900	55.97
RIP	P2SYRIP	2,200	24.67	7,650	75.33

See notes at end of table.

Table 10-6. Frequency distribution of children's vocabulary items in the Parent CAPI Instrument, 2-year data collection: 2003–04—Continued

Does child say…	Variable name	Says word		Does not say word	
		Number	Weighted percent	Number	Weighted percent
UNDER	P2SYUNDR	3,800	43.51	6,000	56.49
COKE	P2SYCOKE	4,700	52.47	5,100	47.53
FLAG	P2SYFLAG	3,400	38.53	6,450	61.47
TASTE	P2SYTST	3,650	41.14	6,150	58.86
MUCH	P2SYMUCH	3,100	34.20	6,750	65.80
JUICE	P2SYJUCE	8,400	85.28	1,450	14.72
STAR	P2SYSTAR	5,750	62.71	4,050	37.29
THINK	P2SYTHIK	1,950	21.91	7,850	78.09
NEED	P2SYND	3,700	42.33	6,150	57.67
MILK	P2SYMLK	8,250	84.59	1,600	15.41
SCHOOL	P2SYSCHL	5,150	56.67	4,700	43.33
ALL GONE	P2SYALGN	7,650	80.63	2,200	19.37
IF	P2SYIF	2,150	26.19	7,700	73.81
HAT	P2SYHAT	7,600	80.56	2,250	19.44
PARTY	P2SYPRTY	3,850	43.68	6,000	56.32

NOTE: The parent weight, W2R0, was used to obtain these statistics. Cell counts are unweighted to show the distribution in the ECLS-B 2-year data collection. Detail may not sum to total due to rounding. Sample sizes have been rounded to the nearest 50.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Birth Cohort, 2-year data collection, 2003–04.

Table 10-7. Frequency distribution of parent reports of children's syntax, 2-year data collection: 2003–04

Variable name	Item description	Response option	Number	Weighted percent
P2CMBWRD	Combines words	(1) Not yet	1,950	16.42
		(2) Sometimes	3,500	34.11
		(3) Often	4,400	49.47
P2HOWCOM	How child communicates	(1) 1-word sentences	1,900	21.55
		(2) 2-3 word phrases	3,750	47.14
		(3) short sentences	2,000	27.85
		(4) long sentences	250	3.46
P2PLURAL	Adds "s" to make plurals	(1) Yes	4,700	64.05
		(2) No	3,150	35.95
P2TKOWSH	Adds "'s" to talk about ownership	(1) Yes	4,800	64.59
		(2) No	3,050	35.41
P2ADSING	Adds "ing" to verb to talk about activities	(1) Yes	3,350	46.41
		(2) No	4,500	53.59
P2TKPST	Adds "ed" to talk about the past	(1) Yes	2,150	30.56
		(2) No	5,700	69.44

NOTE: The parent weight, W2R0, was used to obtain these statistics. Cell counts are unweighted to show the distribution in the ECLS-B 2-year data collection. Detail may not sum to total due to rounding. Sample sizes have been rounded to the nearest 50.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Birth Cohort, 2-year data collection, 2003–04.

Table 10-8. Weighted means and standard deviations of children's total vocabulary scores for total sample and by key demographic variables, 2-year data collection: 2003–04

Characteristic	Average total vocabulary score		
	Number	Weighted mean	Standard deviation
Total sample	9,850	20.06	11.87
Child's race/ethnicity[1]			
White	4,150	30.14	11.82
Black	1,500	28.66	11.33
Hispanic, race specified	1,350	27.78	11.46
Hispanic, no race specified	600	26.19	11.74
Asian	1,050	29.57	12.33
Native Hawaiian/Pacific Islander	50	29.44	14.03
American Indian/Alaska Native	250	26.73	11.16
More than 1 race	750	29.05	12.54
Poverty status			
Below poverty threshold	2,200	27.16	11.61
At or above poverty threshold	7,600	29.67	11.79
Child's sex			
Male	5,000	26.92	12.10
Female	4,800	31.44	11.00
Child's age at assessment			
21 months and under	#	21.58	6.81
22–23 months	950	26.03	11.25
24–25 months	7,350	28.90	11.79
26–27 months	1,100	32.01	11.48
28 months and over	350	35.34	10.60
Birth weight			
Normal	7,200	29.44	11.74
Moderately low	1,500	26.29	11.67
Very low	1,050	19.84	11.37
Mother's age (in years)			
19 and under	350	26.95	10.57
20–29	4,350	28.76	11.62
30–39	4,300	29.86	12.04
40 and over	750	28.47	11.74

See notes at end of table.

Table 10-8. Weighted means and standard deviations of children's total vocabulary scores for total sample and by key demographic variables, 2-year data collection: 2003–04—Continued

Characteristic	Average total vocabulary score		
	Number	Weighted mean	Standard deviation
Mother's race/ethnicity[1]			
White	4,550	30.08	11.80
Black	1,550	28.84	11.33
Hispanic, race specified	1,650	27.06	11.73
Hispanic, no race specified	50	26.83	12.19
Asian	1,200	29.20	12.34
Native Hawaiian/Pacific Islander	50	31.14	12.40
American Indian/Alaska Native	350	27.40	10.67
More than 1 race	250	28.35	11.88
Mother's education			
8th grade or below	450	26.07	12.06
9–12th grades	2,000	27.61	11.77
High school diploma	2,100	28.19	11.31
Vocational/technical	200	28.25	12.19
Some college	2,350	29.96	11.68
Bachelor's degree	1,600	30.26	11.97
Graduate school (no degree)	150	32.57	10.94
Master's degree	650	32.81	11.89
Doctoral/professional degree	250	33.94	10.02

Rounds to zero.

[1] Race categories exclude Hispanic origin unless specified.

NOTE: The parent weight, W2R0, was used to obtain these statistics. Cell counts are unweighted to show the distribution in the ECLS-B 2-year data collection. Detail may not sum to total due to rounding. Sample sizes have been rounded to the nearest 50.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), 2-year data collection, 2003–04.

Table 10-9. Weighted means and standard deviations for children's language use/syntax by key demographic characteristics, 2-year data collection: 2003–04

Demographic characteristics	Combines words (P2CMBWRD)			How communicates (P2HOWCOM)			Adds "s" to make plural (P2PLURAL)			Adds "s" for ownership (P2TKOWSH)			Adds "ing" to a verb for activities (P2ADSING)			Adds "ed" to refer to past (P2TKPST)		
	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD
Total sample	9,850	2.33	0.74	7,850	2.13	0.78	7,850	1.36	0.48	7,850	1.35	0.48	7,850	1.54	0.50	7,850	1.69	0.46
Mother's race/ethnicity[1]																		
White	4,600	2.46	0.70	3,900	2.16	0.80	3,900	1.32	0.47	3,900	1.31	0.46	3,900	1.52	0.50	3,900	1.69	0.46
Black	1,550	2.24	0.74	1,200	2.25	0.74	1,150	1.39	0.49	1,200	1.43	0.49	1,200	1.53	0.50	1,200	1.69	0.46
Hispanic, race specified	1,650	2.08	0.77	1,150	1.97	0.74	1,200	1.43	0.50	1,150	1.43	0.50	1,150	1.56	0.50	1,150	1.69	0.46
Hispanic, no race specified	50	2.08	0.76	50	2.05	0.55	50	1.14	0.35	50	1.37	0.47	50	1.52	0.50	50	1.69	0.46
Asian	1,200	2.23	0.77	1,000	2.16	0.79	1,000	1.57	0.50	1,000	1.43	0.50	1,000	1.60	0.49	1,000	1.75	0.43
Native Hawaiian/ Pacific Islander	50	2.29	0.71	50	2.17	0.70	50	1.35	0.48	50	1.31	0.46	50	1.49	0.50	50	1.77	0.42
American Indian/ Alaska Native	350	2.30	0.72	300	1.99	0.69	300	1.38	0.49	300	1.40	0.49	300	1.57	0.49	300	1.78	0.41
More than 1 race	250	2.37	0.73	200	2.17	0.82	200	1.41	0.49	200	1.41	0.49	200	1.56	0.50	200	1.72	0.45
Poverty status																		
Below poverty threshold	2,200	2.18	0.77	1,650	2.09	0.76	1,650	1.38	0.48	1,650	1.40	0.49	1,650	1.57	0.49	1,650	1.66	0.47
At or above poverty threshold	7,650	2.37	0.73	6,200	2.14	0.79	6,200	1.36	0.48	6,200	1.34	0.47	6,200	1.53	0.50	6,200	1.70	0.46

See notes at end of table.

Table 10-9. Weighted means and standard deviations for children's language use/syntax by key demographic characteristics, 2-year data collection: 2003–04—Continued

Demographic characteristics	Combines words (P2CMBWRD)			How communicates (P2HOWCOM)			Adds "s" to make plural (P2PLURAL)			Adds "s" for ownership (P2TKOWSH)			Adds "ing" to a verb for activities (P2ADSING)			Adds "ed" to refer to past (P2TKPST)		
	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD
Child's race/ ethnicity[1]																		
White	4,200	2.46	0.70	3,500	2.17	0.80	3,500	1.32	0.46	3,500	1.30	0.46	3,500	1.53	0.50	3,500	1.69	0.46
Black	1,550	2.23	0.74	1,150	2.23	0.73	1,150	1.39	0.49	1,150	1.43	0.50	1,150	1.54	0.50	1,150	1.69	0.46
Hispanic, race specified	1,350	2.14	0.77	1,000	1.98	0.73	1,000	1.40	0.49	1,000	1.41	0.49	1,000	1.56	0.50	1,000	1.68	0.47
Hispanic, no race specified	600	2.06	0.77	400	1.98	0.79	400	1.43	0.50	400	1.44	0.50	400	1.54	0.50	400	1.71	0.45
Asian	1,050	2.23	0.76	850	2.19	0.81	850	1.58	0.49	850	1.44	0.50	850	1.61	0.49	850	1.73	0.44
Native Hawaiian/ Pacific Islander	50	2.49	0.70	50	2.19	0.58	50	1.30	0.46	50	1.38	0.49	50	1.63	0.48	50	1.72	0.45
American Indian/ Alaska Native	250	2.30	0.73	200	1.92	0.74	200	1.37	0.48	200	1.44	0.50	200	1.63	0.48	200	1.74	0.44
More than 1 race	750	2.39	0.74	600	2.16	0.77	600	1.43	0.50	600	1.36	0.48	600	1.51	0.50	600	1.74	0.44
Child's sex																		
Male	5,050	2.22	0.76	3,800	2.00	0.78	3,800	1.39	0.49	3,800	1.40	0.49	3,800	1.61	0.49	3,800	1.74	0.44
Female	4,800	2.44	0.70	4,050	2.26	0.76	4,050	1.33	0.47	4,050	1.31	0.46	4,050	1.47	0.50	4,050	1.65	0.48
Child's age at assessment																		
21 months and under	#	1.88	0.32	#	1.87	0.83	#	1.37	0.48	#	1.08	0.27	#	1.72	0.45	#	1.97	0.18
22–23 months	950	2.25	0.76	750	1.97	0.75	750	1.42	0.49	750	1.43	0.49	750	1.61	0.49	750	1.76	0.43
24–25 months	7,400	2.32	0.74	5,900	2.11	0.77	5,900	1.36	0.48	5,900	1.35	0.48	5,900	1.54	0.50	5,900	1.71	0.46
26–27 months	1,100	2.41	0.71	950	2.29	0.82	900	1.33	0.47	900	1.32	0.47	900	1.51	0.50	900	1.61	0.49
28 months and over	350	2.55	0.67	300	2.62	0.77	300	1.26	0.44	300	1.23	0.42	300	1.38	0.49	300	1.53	0.50

See notes at end of table.

Table 10-9. Weighted means and standard deviations for children's language use/syntax by key demographic characteristics, 2-year data collection: 2003–04—Continued

Demographic characteristics	Combines words (P2CMBWRD)			How communicates (P2HOWCOM)			Adds "s" to make plural (P2PLURAL)			Adds "s" for ownership (P2TKOWSH)			Adds "ing" to a verb for activities (P2ADSING)			Adds "ed" to refer to past (P2TKPST)		
	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD	Number	Mean	SD
Child's birth weight																		
Normal	7,200	2.35	0.74	6,000	2.15	0.79	6,000	1.36	0.48	6,000	1.35	0.48	6,000	1.53	0.50	6,000	1.69	0.46
Moderately low	1,500	2.18	0.76	1,200	1.98	0.74	1,200	1.39	0.49	1,200	1.44	0.50	1,200	1.62	0.49	1,200	1.75	0.43
Very low	1,050	1.81	0.78	650	1.71	0.70	650	1.54	0.50	650	1.52	0.50	650	1.70	0.46	650	1.86	0.34
Mother's age (in years)																		
19 and under	350	2.28	0.68	300	2.06	0.79	300	1.32	0.47	250	1.40	0.49	300	1.64	0.48	300	1.69	0.46
20–29	4,400	2.32	0.73	3,550	2.13	0.77	3,550	1.35	0.48	3,550	1.36	0.48	3,550	1.56	0.50	3,550	1.68	0.47
30–39	4,300	2.36	0.75	3,450	2.15	0.80	3,400	1.36	0.48	3,400	1.33	0.47	3,450	1.50	0.50	3,400	1.70	0.46
40 and over	750	2.27	0.76	550	2.12	0.80	550	1.42	0.49	550	1.39	0.49	550	1.54	0.50	550	1.78	0.42
Mother's education																		
8th grade or below	450	1.93	0.75	300	1.91	0.78	300	1.47	0.50	300	1.46	0.50	300	1.57	0.50	300	1.63	0.48
9–12th grades	2,000	2.24	0.74	1,550	2.06	0.75	1,550	1.36	0.48	1,550	1.39	0.49	1,550	1.57	0.50	1,550	1.65	0.48
High school diploma	2,100	2.29	0.73	1,650	2.12	0.77	1,650	1.35	0.48	1,650	1.38	0.48	1,650	1.56	0.50	1,650	1.71	0.45
Vocational/technical	200	2.23	0.77	150	2.08	0.78	150	1.34	0.47	150	1.37	0.48	150	1.62	0.49	150	1.70	0.46
Some college	2,350	2.39	0.73	1,900	2.15	0.77	1,900	1.36	0.48	1,900	1.33	0.47	1,900	1.53	0.50	1,900	1.73	0.45
Bachelor's degree	1,600	2.43	0.74	1,300	2.18	0.80	1,300	1.37	0.48	1,300	1.32	0.47	1,300	1.51	0.50	1,300	1.72	0.45
Graduate school (no degree)	150	2.66	0.58	150	2.25	0.75	150	1.28	0.45	150	1.21	0.41	150	1.43	0.50	150	1.65	0.48
Master's degree	700	2.57	0.66	600	2.33	0.87	600	1.32	0.47	600	1.30	0.46	600	1.42	0.49	600	1.66	0.47
Doctoral/prof. degree	250	2.62	0.60	200	2.27	0.83	200	1.39	0.49	200	1.31	0.46	200	1.41	0.49	200	1.63	0.48

Rounds to zero.

[1] Race categories exclude Hispanic origin unless specified.

NOTE: The parent weight, W2R0, was used to obtain these statistics. Cell counts are unweighted to show the distribution in the ECLS-B 2-year data collection. Detail may not sum to total due to rounding. Sample sizes have been rounded to the nearest 50.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), 2-year data collection, 2003–04.