

EARLY CHILDHOOD LONGITUDINAL STUDY, BIRTH
COHORT (ECLS-B), KINDERGARTEN 2007 NATIONAL
STUDY

DELIVERABLE # 3-14

Final IMT/OMB
Clearance Package

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Agency: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (NCES)

Title: Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), Kindergarten 2007 National Study

Instruments NCES is requesting clearance for:

Kindergarten Repeater Screener

Parent Interview

Child Direct Assessment

Wraparound Early Care and Education Provider Interview

Teacher Questionnaire

At this time, NCES requests clearance from the Office of Management and Budget (OMB) and the Department of Education's Information Management Team (IMT) to collect data for the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B) Kindergarten Data Collection beginning in fall 2007. Clearance has been granted previously in the following years: 1999 (OMB No. 1850-0756) for the first two rounds of data collection for the ECLS-B, which were the 9-month field test and national study and 18-month field test; in 2002 for the 2-year national study (OMB No. 1850-0756); in 2004 for the preschool field test and national study (OMB No. 1850-0756); in 2005 for the combined kindergarten and first grade field tests (OMB No. 1850-0805), and in 2006 for the 2006 kindergarten study (OMB No. 1850-0805). This application requests clearance for the kindergarten 2007 national study.

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ECLS-B, Kindergarten 2007 National IMT/OMB Clearance Package

A. Justification

1. Circumstances Making Collection of Information Necessary

1.1 Background

The Early Childhood Longitudinal Study, Birth Cohort (ECLS-B) is part of a longitudinal studies program comprising two overlapping cohorts—a birth cohort and a kindergarten cohort (the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99, or ECLS-K). Together, these cohort studies provide information to policymakers, researchers, and practitioners about children’s development and early experiences from birth through high school. The data also allow researchers to examine hypotheses regarding factors that may influence children’s early development and their preparation for and later success in school. Whereas the ECLS-K is currently following a nationally representative sample of kindergarten children through eighth grade, the ECLS-B is designed to follow a nationally representative sample of children born in 2001 from 9 months of age through kindergarten entry. One of the goals of the ECLS-B program is to statistically compare the performance of children in the ECLS-B cohort with that of the children in the ECLS-K cohort. The data obtained during kindergarten are critical to making this comparison, because kindergarten is the only common year of data collection across the two cohort studies. This strategy will enable comprehensive intra-cohort comparisons of children’s development from birth through eighth grade. Moreover, data obtained at school entry are critical for researchers to be able to examine how early learning experiences are associated with the development of cognitive, social, and behavioral skills necessary for success in school.

Data have already been collected from the ECLS-B cohort when the children were about 9 months, 2 years of age, and 4 years (preschool) of age. The kindergarten 2006 national data collection round was completed in late spring 2007. However, due to age eligibility requirements and other factors, not all children will have entered kindergarten in fall 2006. It is estimated that 25 percent of the ECLS-B sample will not enroll in kindergarten for the first time until fall 2007. Therefore, an additional round of data collection is planned for fall 2007, which will include the estimated 25 percent of the sample not yet enrolled in kindergarten in fall 2006 and the estimated 5 percent of the sample first enrolled in kindergarten in fall 2006 who repeat kindergarten in fall 2007. The purpose of the kindergarten 2007 national data collection is to ensure that information about kindergarten entry is obtained for the entire ECLS-B cohort, not just those children who first enrolled in fall 2006. Further, collection of data from kindergarten repeaters in fall 2007 will support comparisons with the ECLS-K, which also included repeaters in the sample.

The ECLS-B represents a collaborative effort by health, education, and human services agencies. Sponsors include the U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (NCES); the National Center for Health Statistics (NCHS) of the Centers for Disease Control and Prevention; the National Institute of Child Health and Human Development (NICHD); and other components of the National Institutes of Health

(NIH). Other sponsors within the U.S. Department of Health and Human Services include the Administration on Children, Youth and Families (ACYF), the Maternal and Child Health Bureau (MCHB) of the Health Resources and Services Administration (HRSA), the Office of the Assistant Secretary for Planning and Evaluation (ASPE), and the Office of Minority Health. The Economic Research Service (ERS) and the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA), the Office of Special Education Programs (OSEP), the National Center for Special Education Research (NCSE), and the Office of Indian Education (OIE) of the U.S. Department of Education are also participating sponsors for the study.

In conducting the ECLS-B, NCES is complying with the mandate stated in section 153 of the Education Sciences Reform Act of 2002 (H.R. 3801):

“The Statistics Center shall collect, report, analyze, and disseminate statistical data related to education in the United States and other nations, including... collecting data on...the social and economic status of children, including their academic achievement...access to, and opportunity for, early childhood education...and conducting longitudinal and special data collections necessary to report on the condition and progress of education....”

The federal government has recognized the importance of school readiness and efforts designed to prepare young children for school entry through initiatives such as *Good Start, Grow Smart*, and through legislation, including *No Child Left Behind* and the reauthorization of Head Start. One of the guiding principles of *No Child Left Behind* is closing the achievement gap between poor and nonpoor students and between U.S. students and their international peers. Data from the ECLS-B will be very useful in identifying the precursors of achievement gaps and possible mechanisms for reducing the gaps. One of the major goals of the *Good Start, Grow Smart* initiative is to support early childhood research and disseminate findings to relevant stakeholders. The ECLS-B is one of the federally funded research programs that provide this type of information. Data from the ECLS-B will be used to address the objectives of the *Early Childhood Educator Professional Development Program* of OIE. ECLS-B data are also an important resource used within other federal research initiatives and mandates. Among these are the NICHD and NIH call for research on health disparities as part of Institute missions and within specific initiatives (e.g., *Social and Demographic Studies of Race and Ethnicity in the United States, and Social and Cultural Dimensions of Health*); initiatives that examine the effects of poverty, family structure, and family stability on child health and development (e.g., the *Science and Ecology of Early Development [SEED]*); recently articulated interests in research on children born to immigrant parents as well as ongoing interest in the role of father involvement in child development that are not specified as independent initiatives; and research on school readiness and early learning supported by a research program of the same title established approximately 5 years ago. In addition, there are many questions related to the Child Care and Development Fund program of the Child Care Bureau that will be addressed by the ECLS-B data, including the choices of nonparental care that parents make for their children, the quality of that care, and how these choices relate to parents' income, work schedules, and participation in social/subsidy programs.

The ECLS-B represents the first national examination of children, their families, and the types of early care and educational programs in which these children participate before and at the

time of school entry. Collection of the kindergarten 2007 wave of the ECLS-B data is needed to allow researchers and policymakers to gauge the readiness of young children at school entry, to examine relationships between early childhood experiences and school readiness, and to understand what needs to be done to better prepare children for school.

1.2 Issues Addressed by the ECLS-B

The ECLS-B addresses four key areas: (1) children's health status throughout early childhood; (2) children's growth and development in critical domains; (3) children's transitions to child care, early childhood education programs, and kindergarten; and (4) school readiness. The kindergarten 2007 round of the ECLS-B is designed to investigate these issues at the time that children enter formal school settings and to examine the factors that determine children's readiness for school. These data will contribute to the knowledge base detailing the role of early life experiences, relationships, and early care and learning environments in children's development and readiness to learn in school. The data collected at kindergarten 2007 are critical for understanding which of these early factors and experiences are linked with successful transition to school. The specific contributions of the data collected during the kindergarten round are indicated below.

Children's health status. It is widely believed that physical and emotional well-being are related to the development of school readiness skills (Fast Response Survey System 1993; Lewitt and Baker 1995). The ECLS-B is interested in children's health at birth and thereafter. Questions addressed by these data include

- How are children's early health care and health status, including disabilities and injuries, related to their preparedness for formal schooling?
- What groups of children have more developmental difficulties, and how does family involvement in early intervention, early childhood education programs, and health promotion and prevention programs enhance the rates of growth and development of these vulnerable children? How do these children fare when they enter formal schooling compared to their peers?

Children's growth and development. A major goal of the ECLS-B is to describe children's growth and development in the critical years before and at the time that they enter school. With a sample representative of the nation's children born in 2001, it will be possible to examine differences in children's growth and development by many background characteristics, including race/ethnicity, socioeconomic background, gender, and geographic region. In addition, by including data regarding family structure, marital relationships, parenting behavior and attitudes, and the home environment, it will be possible to examine the factors and conditions that best support children's development in the domains that are critical for school success: language skills, social and emotional well-being, approaches to learning, and cognition and general knowledge. Questions addressed by the data include:

- What are children's competencies in cognitive, socioemotional, language, and physical domains when they enter kindergarten?
- What are the levels and rates of growth in these domains from infancy through kindergarten? How do these levels and rates of growth vary for different groups of

children? What characteristics of children, their families, and their early care/education experiences are associated with different levels and rates of growth?

- Which groups of children are more likely to demonstrate developmental and academic difficulties? Which groups of children are more likely to repeat kindergarten?
- How do the growth and development of children who experience difficulties during infancy compare to the growth and development of children who do not experience such difficulties during infancy? How do family resources, early interventions, early childhood programs, health promotion and prevention programs, and school programs enhance the rates of growth and development for these vulnerable children? In what kinds of educational programs are these children enrolled in kindergarten?

Children’s participation in nonparental child care, early education programs, and school. The ECLS-B has collected data regarding children’s transitions from exclusive parental care to care by other people and to group-based early childhood programs, including the timing of such transitions. Data on the characteristics of early child care programs and providers are also part of the ECLS-B dataset. Previous longitudinal studies of children in child care (e.g., the Cost Quality and Child Outcomes study and the NICHD Study of Early Child Care and Youth Development) provide evidence that the quantity and quality of child care arrangements are linked to a variety of child outcomes during the early school years. However, the findings from these two studies do not always agree. In particular, the NICHD Study of Early Child Care and Youth Development (SECCYD) found that the time spent in nonmaternal care arrangements was linked to problem behaviors in kindergarten even when maternal sensitivity and family background were taken into account (NICHD Early Child Care Research Network 2003). In contrast, Peisner-Feinberg and her colleagues from the Cost, Quality, and Child Outcomes study (1999) found that high-quality child care was related to children’s language, mathematics, and behavioral competence in the classroom through the first years of schooling. Results from these two large studies suggest that there is more to be learned about how variations in programs—including organization, sponsorship, and quality—affect children with varying backgrounds and needs with respect to preparation for school. With a nationally representative group of children on whom data were gathered at regular intervals, it will be possible to examine these issues taking into account factors such as income, race/ethnicity, medical risk, and size of community. It is expected that these data will enable researchers to describe how the type, stability, and quality of child care are related to readiness for school upon kindergarten entry. Moreover, they may provide us with a better understanding of which children may benefit more from educational, nonparental care experiences such as Head Start and/or formal center-based care.

The kinds of questions that will be addressed by the data collected during the kindergarten round include

- How do first-time kindergarteners in 2007 differ from their peers who had enrolled in kindergarten “on-time” in 2006? Do delayed-entry children perform similarly in kindergarten compared to their peers who entered kindergarten on time? How do repeaters compare to peers?

- What differences in transitional experiences do children with varying backgrounds experience when entering kindergarten? How are these differences related to academic and social success?
- What is the relationship between child care receipt, auspice, and quality and children's academic and social difficulties?
- How do child care experiences prepare children with disabilities for school?
- How do the characteristics of the child care programs interact with the characteristics of children and their families to affect children's social and cognitive development?

School readiness. School readiness is a multifaceted construct related to the academic and socio-emotional skills a child has when entering kindergarten. Traditionally, the concept of readiness emphasized the acquisition of skills presumed to be necessary to benefit from formal instruction, such as knowing colors, the alphabet, and numbers; awareness of print concepts; writing one's name; and using crayons and scissors. Although these skills underlie much of what is taught in school and may be thought of as necessary, they are not sufficient for success in school. It has been recognized that school readiness is based on more than pre-academic skills. In fact, some researchers suggest that social and emotional adaptation is as important to long-term school success as are traditional pre-academic skills (Boyer 1991; Carnegie Task Force on Meeting the Needs of Young Children 1994; Ewing Marion Kauffman Foundation 2002; Ladd 1990; Masten et al. 1995; Raver 2002). Research indicates that parent-child and teacher-child relationships are critically important in developing these skills. Moreover, the quality of the child-teacher relationship is related to academic and social success in elementary school; this is especially true for children who are otherwise at risk of academic or social problems in school (Peisner-Feinberg et al. 2001).

It has also been shown that there are achievement gaps as a function of race/ethnicity, income, and other characteristics as early as school entry. For instance, both the ECLS-K (Rathbun and West 2004) and the Prospects study (U.S. Department of Education 1993, cited in Phillips, Crouse, and Ralph 1998) indicate that racial/ethnic differences appear to exist in children's basic skills during the first years of school and that these differences widen as children progress through school. However, neither of these studies collected data prior to school entry. Smaller-scale studies suggest that perinatal factors (e.g., prematurity and low birth weight), parenting behaviors (e.g., nurturance, discipline, teaching, and language use), and access to quality child care are among the factors that may contribute to observed differences in school readiness (Brooks-Gunn and Markman 2004; Magnuson and Waldfogel 2005; Reichman 2005). The ECLS-B dataset can be used to describe how these various factors relate to school readiness and gaps in readiness skills.

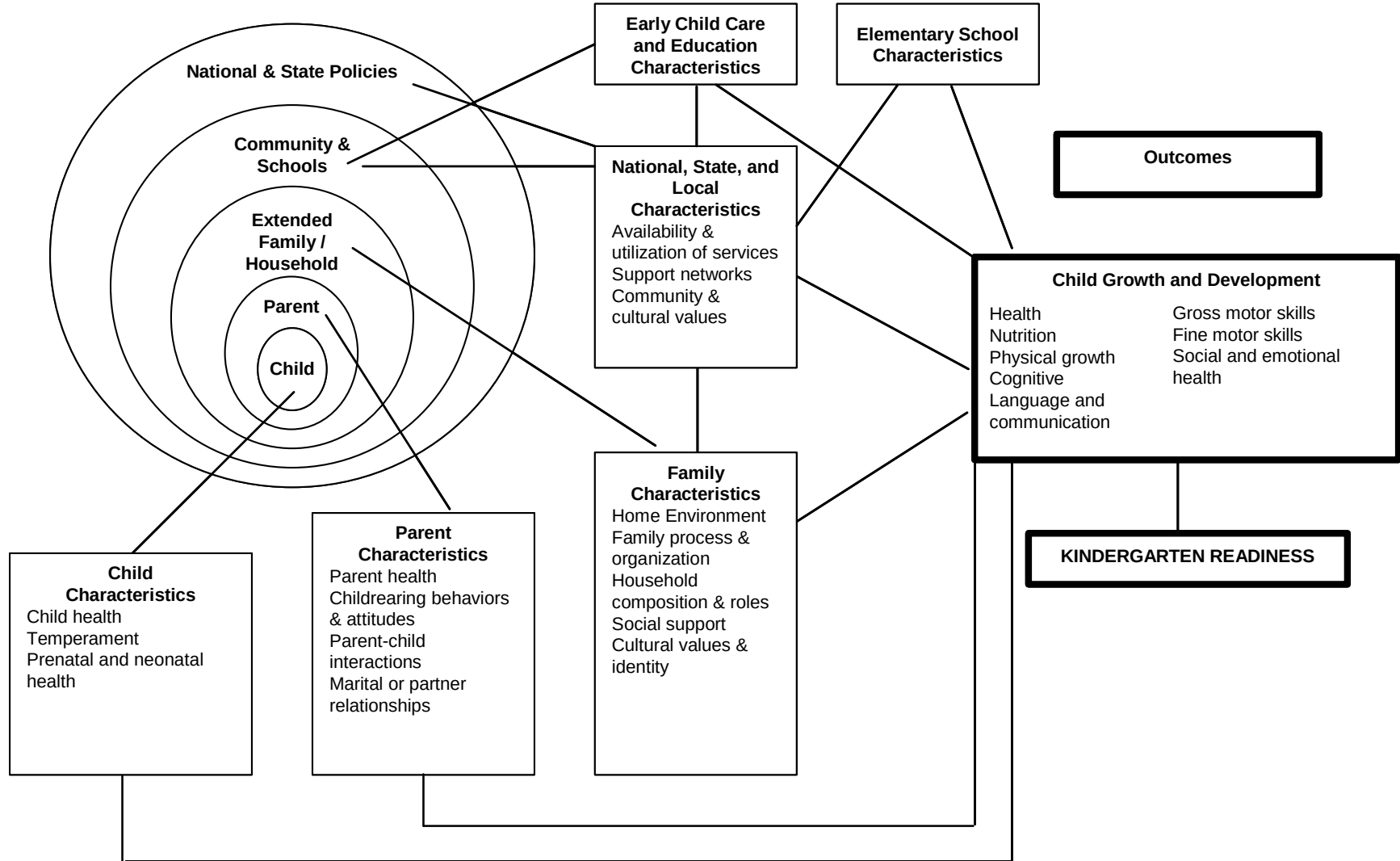
The ECLS-B will examine children's preparation for school by describing a broad spectrum of early home and child care experiences. This rich data source will provide analysts with information on family characteristics, such as language spoken in the home, literacy activities in the home, and maternal education, as well as information on the children's care arrangements outside the home, such as care provider resources and daily activities, and amount of time spent in each type of care setting.

Existing research has already found relationships among competencies in the preschool years and certain home and care characteristics (National Research Council and Institute of Medicine 2000). The ECLS-B data will extend the research community's ability to understand the factors associated with school success and school failure. The longitudinal study design will permit a thorough investigation of how the characteristics, experiences, and environment of children in the preschool years influence their initial achievement in school. Moreover, with a nationally representative sample, the ECLS-B kindergarten data will enable researchers to develop an operational definition of school readiness based on a cluster of the best functional precursors of school success. The kinds of questions that the kindergarten data will be able to address include:

- What literacy, language, mathematical, social, and motor skills do children exhibit when they enter kindergarten, and what variation in these skills exists by demographic characteristics such as race/ethnicity, socio-economic status, and family structure? How do these characteristics differ among children repeating kindergarten, those entering on time, and those with delayed entry?
- What characteristics of children, their families, and their early care and educational experiences influence children's readiness for school? What characteristics contribute most to the attainment of school readiness skills and behaviors?
- How do schools facilitate the transition into kindergarten? What is the relationship of this transition to children's success in school? How do parents prepare for this transition?
- How do the characteristics of parents, families, and early care and education arrangements during the preschool years relate to differences in skills at kindergarten entry?

The overall conceptual model guiding the ECLS-B is that children's preparation for school begins at birth and continues until they enter school for the first time (see Figure A-1). The model is framed by an ecological view of development (Bronfenbrenner 1986) that posits the child developing within the context of family, community, schools, and governmental policies. As depicted in the model, children's school readiness is a central outcome of interest in the ECLS-B and may be defined as a set of developmental characteristics and skills that help kindergartners meet the demands of formal school settings. Child growth and development, which determine school readiness, are influenced by multiple factors that are themselves interrelated. Parental, extended family/household, and community and school/child care characteristics influence one another and have an impact on the child's health; growth; and intellectual, language, and socioemotional development.

Figure A-1. ECLS-B Conceptual Model



This model was used as a springboard to develop the data collection strategy and content of the ECLS-B. The broad view of development and well-being and the different environments in which development and learning occur are critically important to the ECLS-B design. The kindergarten round of the ECLS-B is designed specifically to collect data when children enter formal school settings, assessing children's socio-emotional, behavioral, cognitive, language, and physical development upon entry. Data will also be collected on the characteristics that may affect developmental skills, such as family organization, parental involvement and attitudes, and classroom and teacher characteristics. Moreover, these data will be used in conjunction with the ECLS-B data collected during the first 5 years of life. The longitudinal study design will permit a thorough investigation of how the early development, learning experiences, and home environment influence the children's initial success in school.

The data collected by the ECLS-B and the information disseminated through reports prepared by the U.S. Department of Education, Institute of Education Sciences, NCES, and others will inform decisionmakers, educational practitioners, researchers, and parents about the ways in which America raises and nurtures its children, how children are prepared for school, and how early childhood programs and schools affect the lives of the children who attend them. These data are critical for parents, practitioners, analysts, and policymakers alike who require the knowledge base to develop strategies and guidelines to ensure school success.

1.3 Data Collection to Date

A three-stage sample design was used to select a nationally representative sample of approximately 14,000 children born in 2001, of whom 10,688 participated at 9 months, for the first data collection. The first stage consisted of a sample of primary sampling units (PSUs); the PSUs were geographical areas defined by metropolitan statistical areas (MSAs), counties, or groups of contiguous counties. For the second stage, some large PSUs were subdivided into smaller units (secondary sampling units, or SSUs) in an effort to reduce travel costs, and a sample of SSUs was selected from within the larger PSUs. The third stage consisted of a sample of children from within the PSUs and SSUs.

The sample includes children from different socioeconomic backgrounds. Additionally, Chinese, Pacific Islander and Asian (not Chinese) children, American Indian and Alaska Native children, moderately low birth weight children (1,500 to 2,500 grams), very low birth weight children (under 1,500 grams), and twins were oversampled. Prior to the 9-month national data collection, two field tests were conducted. Although initial plans called for an 18-month national data collection, only a field test was carried out at 18 months. It was decided to postpone the first follow-up national data collection until the children were 2 years of age. A field test for the preschool round was completed in February 2005, and the preschool national study occurred between fall 2005 and spring 2006. At the same time, a field test was conducted for the kindergarten 2006 round, which was completed in Spring 2007. Table A-1 provides information regarding the sample sizes for each of the components that have been completed.

1.4 Overview of Kindergarten 2007 National Data Collection

This document requests clearance for the kindergarten 2007 national data collection wave, scheduled to occur in fall 2007. Children who participated in the round 5 (Kindergarten

2006) collection but who were not yet enrolled in kindergarten will be eligible to participate (approximately 25 percent of the sampled children). Additionally, children enrolled in kindergarten in fall 2006 repeating kindergarten in fall 2007 will be included (approximately 5 percent of the full sample of children).

Table A-1. Previous waves of ECLS-B data collection

Data collection	Start date of collection	Sample size fielded	Completed sample ¹
First 9-month field test	September 1999	1,517	643
Second 9-month field test	September 2000	979	722
18-month field test	June 2001	807	650
9-month national study	September 2001	14,197	10,688
2-year national study	January 2003	10,688	9,835
2-year child care provider interview	March 2003	3,342	3,235
2-year child care observation	March 2003	1,671	1,410
Preschool field test abbreviated parent interview	September 2004	303	250
Preschool field test child assessment	September 2004	1,444	1248
Preschool field test child care provider interview	October 2004	192	172
Preschool field test child care observation	November 2004	162	107
Preschool national study parent interview	September 2005	9,902	8,941
Preschool national study child assessment	September 2005	9,902	8,754
Preschool national study child care provider interview	October 2005	7,278	6,010
Preschool national study child care observation	October 2005	4,051	1,779
K06 field test abbreviated parent interview	September 2005	335	296
K06 field test child assessment	September 2005	344	303
K06 field test teacher questionnaire	October 2005	201	154
K06 national study parent interview	September 2006	7,015	TBD
K06 national study child assessment	September 2006	7,657	TBD
K06 national study wrap around care provider interview	October 2006	1,490	TBD
K06 national study child care provider interview	October 2006	1,298	TBD
K06 national study teacher interview	October 2006	4,801	TBD

¹ Parent interview unless otherwise indicated.

NOTE: "TBD": To be determined once final responses counts have been tallied.

SOURCES: U.S. Department of Education, National Center for Education Statistics, *Early Childhood Longitudinal Study, Birth Cohort (ECLS-B)*, "9-Month Field Test Report," "Methodology Report for the Nine-Month Data Collection (Draft)," "User's Manual for the ECLS-B Longitudinal 9-month-2-Year Restricted-Use Data Files and Electronic Codebooks," "Design and Operations Report for the 2-Year Collection." RTI, International, *Early Childhood Longitudinal Study, Birth Cohort: The Preschool Years (ECLS-B, Preschool Year)* "Field Test Report #1: Field Staff Recruitment and Training," "Field Test Report #2: Adult Instruments: Parent Interview, ECEP Interview, and Father Questionnaires," "Field Test Report #3: Child Care Observation Study," "Field Test Report #4: Field Test Home Data Collection," "Field Test Report Memo #5: Child Assessment." U.S. Department of Education, National Center for Education Statistics (NCES). *Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), Methodology Report for the Preschool Data Collection (2005–06), Volume II: Sampling*.

The ECLS-B Kindergarten 2007 wave will include the following components: a direct assessment of the child's development, an interview with the child's primary caregiver, an interview with the child's before- or after-school nonparental care provider (if any), and a questionnaire to be completed by the child's teacher.

An interview with the child's parent will be conducted in the home. In the course of this interview, permission will be obtained to contact the child's care provider, teacher, and school. The second component of the home visit is the child assessment. The ECLS-B kindergarten 2006 cognitive assessment will be used again for the kindergarten 2007 round. The assessment will comprise two major areas of development: language/literacy and mathematics skills. Fine and gross motor skills will also be assessed. Components of the assessment were drawn from the kindergarten-first grade assessment used in the ECLS-K, permitting a statistical comparison between the two cohorts.

Apart from the home visit portion of the data collection, information will be collected from care providers and educators. The school data collection procedures involve informing schools and districts of the study and collecting teacher reports of students. Care providers will be interviewed by telephone in instances where a child is in any of a variety of before- or after-school care settings.

1.5 Kindergarten 2007 Data Collection Procedures

Screener. Upon OMB approval, RTI will contact parents of children enrolled in kindergarten during the 2006-2007 school year and who participated in the kindergarten 2006 wave, to determine eligibility for the kindergarten 2007 wave. The purpose of this contact will be to identify children who are repeating kindergarten in the 2007-2008 school year. These eligible children will then be included in the kindergarten 2007 sample. The initial screening contact will be by priority mail, with a short screening survey mailed to parents to determine which grade their child will attend during the upcoming school year (fall 2007). Responses to this series of questions will determine whether or not the child is repeating kindergarten. The screening questionnaire will also thank parents for their participation in the kindergarten 2006 round and confirm or update contact information to facilitate in-person follow-up for sample members who are eligible for the kindergarten 2007 wave. Parents will be asked to complete and return the survey or call a toll-free number to ask questions and/or complete the screening by telephone. Because of the importance of assessing eligibility for the kindergarten 2007 wave in a timely manner, prior to the in-person data collection wave, a \$5 prepaid cash incentive will be included with the screening survey mailed to the parents.

Parents who do not respond to the initial mailing will be contacted by RTI telephone interviewers and administered the screening survey by telephone. If the child is a kindergarten repeater, the interviewer will explain that a field interviewer will be contacting them to set up an appointment for an in-person visit. Telephone interviewers will be given training to support their sensitivity to the subject of repeating kindergarten.

For parents who cannot be reached by telephone, a final nonresponse follow-up mailing will be sent through Federal Express in an effort to collect the screening information and confirm the contact information prior to the start of the kindergarten 2007 wave. No additional incentive will be included in this second mailing.

The screening process may identify situations where only one child in a sampled twin set is found to be repeating kindergarten in the 2007-2008 school year. The ECLS-B oversampled twin births (15.5 percent of the full sample at 9-months, unweighted). To be sensitive to those rare circumstances where only one twin of a given set will repeat kindergarten in 2007, both

twins will be assessed in the kindergarten 2007 wave and interviews with parents, direct child assessments, and care provider interviews will be conducted. The teacher survey will be mailed only to the teacher of the twin enrolled in kindergarten in Fall 2007.

Contact information will also be confirmed for parents of sampled children who are first-time kindergarteners for fall 2007. Letters requesting this same information will be mailed prior to data collection and include a toll-free number for parents who have additional questions.

Home visit (November 2007–March 2008). Field interviewers will visit study participants in their homes. Prior to in-person contact, a letter re-introducing the parent to the study along with the study brochure will be mailed to the home. The lead letter will include a toll-free number so parents can call and ask questions about the study. The lead letter will also have a place where field interviewers write in their name. The ECLS-B color brochure will briefly explain the study, why it is important, and how it will be conducted. It will encourage parent respondents to participate in the study, information about the study's sponsors, and project contacts who can provide additional information. The brochure will also provide a ready reference for additional details about the study, including answers to commonly asked questions.

A few days after the lead letter packet has been mailed, field interviewers will call the parents to introduce themselves, answer any questions they may have, and make an appointment to conduct the parent and child interviews. The home visit will consist of an interview with the child's primary caregiver (usually the mother), a direct cognitive assessment of the child, and a brief set of assessments of fine and gross motor skills, followed by physical measurements. Information regarding the child's school placement will also be collected, as will permission to contact the child's teacher, and wrap-around care provider where appropriate. Parents will receive \$30 for participating in the study; parents of sampled twins will receive \$60.

Field interviewers will attempt to convert soft refusals only; that is, parents who refuse for one of the following nonhostile reasons—too busy, no longer interested, repeated broken appointments, repeated noncontacts, or does not want their child assessed. The field supervisor will send a letter to the parent to address their concern and then follow-up by phone before sending the field interviewer for another in-person attempt.

Teacher data collection (November 2007–May 2008). A teacher self-administered questionnaire (Teacher SAQ) will be mailed to the child's kindergarten teacher. Because the ECLS-B is a home-based study, it was anticipated that we would have on average only one child per school and this assumption is holding true for the kindergarten 2006 round. The time and effort needed to follow the more traditional hierarchical school recruitment process—seeking formal written consent first at the state, then district, and finally school level—cannot be sustained when the effort yields only a single child instead of whole classrooms of children. However, gaining access to a child's teacher without working with the school is often difficult. Therefore, we are using a passive consent process with the schools. An informational packet about the ECLS-B study will be sent to the administrators of the identified districts in fall 2007. They will be informed that, if parental consent to contact the teacher is obtained during the course of a home visit in the fall, the study plans to mail the teacher a questionnaire packet regarding the child's behavior and school performance. The information will clearly state that participation in the study will not disrupt school activities and will not have any financial cost to them. This advance notification will allow administrators to alert ECLS-B project staff if district-

level approvals are required (even with parental consent) prior to contacting the teacher. In the fall, when the enrollment of a study participant is confirmed, the district and school will receive another informational packet one week prior to sending the Teacher SAQ, again giving them time to alert us of the need for any prior approvals.

Before contact is made with teachers, parents will be asked for their consent during the home visit to contact their child's teacher. They will then be asked to sign a consent form allowing teacher contact and, if they agree, they will be asked to furnish the names of the teacher, the school, and the principal. Parents will also be asked to sign a preprinted letter addressed to their child's teacher confirming their participation in the study and requesting the teacher's participation. After the home visit, the Teacher SAQ will be mailed to the teacher's school address along with a copy of the signed consent and parent letter, an NCES letter endorsing the study, an ECLS-B brochure, a postage-paid business reply envelope, and a \$10 gift card redeemable at a national bookstore chain. Seven days after the questionnaire packet is mailed, a thank you/reminder letter will be sent. If an e-mail address is available, a thank you/reminder e-mail will be sent as well.

Two weeks after the mailing of the thank you/ reminder letter, a second questionnaire packet will be sent to those teachers who have not yet returned the completed questionnaire (it will not include a second gift card). Seven days after the second packet is mailed, a second thank you/reminder e-mail will be sent to teachers with known school e-mail addresses. Two weeks after the second packet is mailed, if the questionnaire has not yet been returned, a reminder phone call will be placed to the teacher at the school. Initially, the school office will be called and the office staff person will be asked when the best time to reach the teacher would be (e.g., before school, after school, or during a free period). Five attempts will be made to reach the teacher "live." If the teacher cannot be reached at these times after four attempts, on the fifth attempt a single message will be left either in the individual's school voice mailbox or an office assistant will be asked to take a brief message that would include a callback number should the teacher want to follow up. If a questionnaire is not returned within two weeks of the reminder call or message, one last Teacher SAQ packet will be sent via express mail delivery service (without further gift card incentive).

School-level administrative data will also be collected. However, unlike in the ECLS-K study, no separate instrument will be fielded for this purpose. To reduce respondent burden and study costs, extant national school databases, i.e., the Common Core of Data (CCD) and the Private School Universe Survey (PSS), will be used for the administrative data collection. Contents of the CCD and PSS were analyzed as part of the ECLS-B K-1 Field Test. These analyses revealed that the coverage and completion of these databases is sufficient to supply the administrative variables of interest to the ECLS-B.

Care provider data collection (November 2007–March 2008). Care providers who provide care before and after school to sample children for at least 5 hours a week on a regular basis will be interviewed via telephone by field staff. Prior to being contacted, providers will receive a letter introducing the study, which will include a copy of the parent's signed consent to contact the provider. This interview will only be administered with the parent's permission. Permission to conduct the interview with the child's provider will be elicited from the parent during the parent interview. If permission is granted, parents will be asked for contact information for the child's provider, who will then be asked to participate in the study. Providers

in home-based, center-based, and school-based care settings will be included. Each type of child care provider will receive \$20 for their participation in the study.

Field interviewers will attempt to convert soft refusals only; that is, care providers who refuse for one of the following nonhostile reasons—too busy, no longer interested, repeated broken appointments, or repeated noncontacts. The field supervisor will send a letter to the care provider to address their concern and then follow-up by phone.

2. How, by Whom, and for What Purpose Information Is to Be Used

The purpose of the ECLS-B is to provide a comprehensive, reliable dataset that may be used by NCES and other federal agencies and by other authorized individuals to describe and understand children's early development in the context of their family, child care, and early educational experiences. This is the first study that has followed a national sample of U.S. children and their families from birth through kindergarten. As such, the ECLS-B meets a need for better national data that can be used as the basis for decisions to be made concerning children's care and education. In particular, by including data regarding children's early development, family environment, health care, transitions into nonparental care and early education, it will be possible to increase our understanding of the dynamics that lead to differential school success. In doing so, these data will inform policymakers in their efforts to improve children's health, early care, and education, which have been linked to subsequent school success.

Because the ECLS-B measures key developmental milestones as they occur throughout early childhood, the data provide a more accurate picture of children's skills and experiences than would be possible with a retrospective data collection. Thus, the ECLS-B data will permit a sequential examination of early child development and its context. Moreover, as a longitudinal study with multiple measurements of developmental achievements, family environment, and child care, the ECLS-B provides a dataset that will allow the study of growth over time, as well as those factors that are associated with differences in children's rates of growth. The ECLS-B will provide the research community an unequalled set of data for years to come. By design, many of the questions in the ECLS-B kindergarten parent interview are taken from the ECLS-K. In addition, there are a number of questions in the kindergarten child cognitive assessment from the ECLS-K cognitive assessment. These common questions will permit data from the two cohorts to be statistically compared. Through this strategy, it will be possible to use information collected in the two datasets to form a comprehensive portrait of children's developmental status from birth through eighth grade.

The ECLS-B also includes a variety of items from other national studies such as the National Maternal and Infant Health Survey (NMIHS), the National Health Interview Survey (NHIS), the National Health and Nutrition Examination Survey (NHANES), the Early Head Start Research and Evaluation Project (EHS), the National Household Education Survey (NHES), and the NICHD Study of Early Child Care and Youth Development (SECCYD). The inclusion of these items will permit comparison of the findings on these different studies on characteristics such as health status, paternal involvement, and child care. One of the most important contributions of the ECLS-B is the ability to examine the cognitive, social, and health outcomes of children from various social groups and birth histories. American Indian/Alaska Native,

Chinese, Pacific Islander and Asian children were oversampled, as were twins and children who were low birth weight (1,500 to 2,500 grams) and very low birth weight (under 1,500 grams). In addition, there are a large number of African American and Hispanic children in the sample. The racial/ethnic diversity of the sample will allow for the examination the influence of cultural variations in family experiences and early education on developmental outcomes. The inclusion of a large sample of low birth weight children will enable comparative analyses between children who are more likely to have developmental delays or disabilities and children of normal birth weight. Finally, the twin samples will provide an important database for researchers interested in examining genetic and environmental influences on cognitive, social, and health characteristics. Because the twins were part of a randomly sampled cohort, the information collected about them provides a unique dataset to examine these issues. In fact, there are few U.S. twin samples as large as the ECLS-B sample. For more information on how the data will be used, please refer to section 16, Plans for Tabulation and Publication of Data.

2.1 Study Components

The ECLS-B will address the issues and questions presented above by collecting data across a variety of domains from multiple perspectives. Below is a description of the instruments that make up the kindergarten 2007 round of the ECLS-B. All instruments are included with this submission.

Screening instrument. The screening instrument will be used to identify children who are eligible for the kindergarten 2007 wave. The survey, designed for administration by mail and telephone (computer-assisted telephone interview, or CATI), will determine which grade the child will attend during the upcoming school year (fall 2007). Responses will be used to identify kindergarten repeaters for inclusion in the 2007 sample. The screener will also include items to confirm the parent's contact information to facilitate in-person follow-up for eligible sample members.

Parent interview. The parent interview is a computer-assisted personal interview (CAPI) with the child's parent or legal guardian; in most cases the interview will be with the mother. It is designed to provide data on a number of child, parent, and family domains such as socioeconomic status, family structure, child health and behavior, family health, and the home environment. Audio computer administered self-administration (ACASI) is used for questions that ask sensitive information such about the respondent's feelings of depression. Administration time for the complete parent instrument, including the ACASI instrument, is designed to be 45 minutes.

Parents are uniquely able to provide information about their children's health and development, particularly in regard to characteristics that are difficult to measure during a home visit and with direct assessments, such as socioemotional competence, behavior problems, and school experiences. One of the key goals of the ECLS-B is to measure transitions in early childhood, including transitions between home care and care outside the home, and transitions between home or child care and school. The kindergarten 2007 parent interview emphasizes children's school experiences, including school characteristics, how well the child's transition to a formal school setting has gone, and the types of transitional activities undertaken by schools or parents. This information will allow researchers to examine factors that may contribute to more successful transitions and better school performance. The kindergarten 2007 instrument will

continue to collect some information collected in previous rounds that change over time, including parent reports of children's prosocial skills, approaches to learning, and emotional knowledge, as well as their reports of behavior problems such as attention deficit hyperactivity disorder (ADHD) and aggression, all considered to be precursors to school adjustment and success (Ladd 1990; Masten et al. 1995; Patterson, DeBaryshe, and Ramsey 1989; Shoda, Mischel, and Peake 1990).

Parents also can best report their own attitudes and values, child-rearing practices, and background characteristics. The constructs measured in the parent interview are critical for gauging the development of the children in the study and the context in which the skills develop. Many of the items have been retained from previous rounds of the ECLS-B study, although new items have been added to reflect issues related to delayed-entry and kindergarten-repeater children. Some portion of the children participating in the kindergarten 2007 round met age eligibility requirements to enroll in kindergarten in fall 2006, but did not enroll until fall 2007. Others will be repeating kindergarten in fall 2007. A few items have been added to collect information on special school readiness activities these children may have participated in, as well as to measure parent attitudes and concerns about school readiness. Other items that are no longer appropriate have been deleted. The current instrument includes 16 major components.

Section FS of the Parent interview contains items that ask about race and ethnicity of household members. These items include a category for refused, which the race/ethnicity guidelines currently under review at OMB do not allow. For analytical purposes, we would like to continue to collect this information in the final wave of this 6-year longitudinal study. We will not be in data collection beyond spring 2008.

Child direct assessment. The direct child assessment is the 1-hour individualized evaluation of children's development that was used in the kindergarten 2006 national data collection. It will include a cognitive assessment, an assessment of gross and fine motor abilities, and measurements of physical growth (i.e., height, weight, middle and upper arm circumference, and for the very low birth weight sample, head circumference). The cognitive assessment includes items tapping language, literacy, and early mathematic skills. It is designed to be appropriate for measuring skills of kindergarteners and first graders. Items from the ECLS-K will be included to allow the performance of the ECLS-B sample to be statistically compared to that of the ECLS-K sample. In addition to the ECLS-K items, the cognitive battery will include items from several standardized instruments such as the Peabody Picture Vocabulary Test, Comprehensive Test of Phonological and Print Processing (CTOPP), and Test of Early Mathematics Ability-3 (TEMA-3). Several sections from the preLAS@2000 will be used to assess both the language skills of the children and their ability to be assessed in English. The cognitive test will be administered using CAPI technology.

The data obtained from the direct child assessment, measuring children's attainment of the critical skills that underlie subsequent school achievement, is one of the most valuable products of this study. The kindergarten 2007 round will ensure that the ECLS-B dataset includes data on skills such as emergent literacy and mathematical understanding at the school entry point for all members of this birth cohort. The data will allow an examination of the variation in the development of these skills by early child care characteristics, school enrollment, and by demographic characteristics such as race/ethnicity, socioeconomic status, and family structure.

The child cognitive instrument is a two-stage adaptive assessment in which the first part will be a routing test. There are three different second-stage test forms appropriate for administration to children of different developmental levels. Which second-stage test a child receives will be determined by his or her score on the routing test. As in the kindergarten 2006 assessment, the two upper-level tests will be taken from the existing ECLS-K instrument. The lowest level test was developed using higher level items from the ECLS-B preschool instrument. Stop rules will limit the burden on individual children. The language and literacy tests include both scored and practice items. The two-stage mathematics test includes a routing test and second-stage tests of scored and practice items. Based on the child's routing test performance, children who score at or above a pre-determined cut score will take the more difficult second-stage test. Children who score below the cut score will take the easier second second-stage test. The cut scores on the routing test are developed using simulation procedures and the item response theory (IRT) item parameters from the field test. Performance of the assessment during the K06 national data collection will guide any changes in thresholds or cut scores for K07 administration.

Proposed test forms have also undergone a sensitivity review to ensure that the content and presentation of the test items do not contain any material that may be inappropriate, offensive, or distressing to any participant. Item responses were examined as a function of children's racial/ethnic classification to be sure there is no bias. Items that exhibited differential performance (often referred to as item DIF) favoring the majority group (typically the White group) were identified using statistical procedures such as Mantel-Haenszel and standardized Primary Item Discrepancy Index (P-DIF) statistical procedures. Few items were found to exhibit differential test performance in ways not consistent with other measures of the child's cognitive ability; those with clear bias were omitted from the test.

Both fine motor tasks (e.g., block building and drawing shapes with a pencil) and gross motor tasks (e.g., hopping, skipping, jumping, and throwing a bean bag) will be assessed in the national study. Fine and gross motor skill development are both important in understanding developmental and school readiness outcomes in their own right. In addition, fine motor skills are a proxy for neurological development and predict later cognitive outcomes. Gross motor skills can be used in conjunction with other measures to indicate general health and physical activity. The children's weight, height, and middle-upper arm circumference also will be obtained. These data will provide continuity with the physical measurements obtained in previous rounds and will allow an examination of the development of obesity in children, a rapidly emerging health concern. Head circumference will continue to be obtained from very low birth weight children as a proxy indicator of brain development.

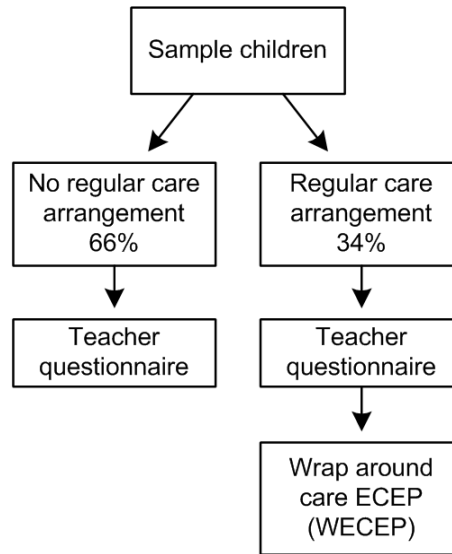
Children's participation in the study will occur only with the full permission of their parents/guardians. Prior to administering the cognitive battery, the parent will be queried regarding the child's capacity to be assessed by asking whether the child demonstrates any severe developmental problems that would preclude him/her from being meaningfully tested with a given assessment without extensive accommodations. If so, the child is not assessed within the particular domain; however, the child remains eligible to participate in assessments in other domains not precluded by their special needs as per parent report. The goal is to maximize inclusion of all children.

Wraparound early care and education provider interview (WECEP). The WECEP interview is a decentralized computer-assisted telephone interview (CATI) that gathers information about children's experiences in before- and after-school care settings. One of the chief goals of the ECLS-B is to obtain information regarding children's total child care and early education experiences and their association with children's development. The WECEP will be asked of part-time and full-time kindergartners' nonparental care providers for those children who are in care 5 or more hours per week on a regular basis. The WECEP interview includes constructs that are thought to be important indicators of program quality and predictors of developmental outcomes and that can be most reliably reported by child care providers and center-based administrators. Importantly, the ECLS-B will be the first nationally representative study that has examined these issues to this degree over time. The WECEP interview will provide a variety of data on children's early social and learning experiences outside the home. Topics include availability of wraparound care, activities offered to children during the hours they are in care, purpose of the program (e.g., educational, recreational) if center-based, characteristics of other children in the care setting, curricula used, caregiver beliefs and attitudes, the learning environment of the care arrangement, caregiver/teacher background, and, in the case of center-based arrangements, center staffing and services.

The WECEP is only conducted with the parent's permission, requested during the Parent Interview. If permission is granted, contact information for the provider will be collected. Data collected through the WECEP complete the picture of the child's educational and developmental experiences by providing information about how hours outside of home and school are spent. The WECEP will be conducted with home-, center-, and school-based providers. The first portion of the WECEP interview, regarding administrative aspects of the center, will be only given to directors of center-based programs, including school-based settings. However, many of the same questions are asked of home-based care providers. The second portion will be administered to both center-based and home-based providers. Administration time is designed to be 10 minutes for the administrator section and 30 minutes for the caregiver/teacher section.

Teacher self-administered questionnaire (Teacher SAQ). One of the key goals of the ECLS-B is to assess children's readiness for kindergarten based on their health and earlier home learning experiences. One of the best sources for assessing a child's school readiness is the person who observes the child in the school setting, i.e., the child's teacher. This instrument was used in the kindergarten 2006 national data collection, and contains a number of items used in the teacher instrument on the ECLS-K. The Teacher SAQ will ask about classroom activities, subjects taught, behavioral information about the child, classroom resources, and the teacher's background. The Teacher SAQ takes an estimated 15 minutes to complete.

Figure A-2. Flowchart of school and care provider instruments by enrollment and care characteristics, Kindergarten 2007 national study



SOURCE: Ad hoc analyses of unweighted ECLS-B Kindergarten 2006 data.

2.2 Major Constructs Measured by Each Instrument

To prepare a dataset that will be useful for researchers and policymakers alike, the kindergarten 2007 wave of the ECLS-B includes many of the same questions as were asked in previous waves, as well as questions from other sources. Table A-2 also provides a summary of the constructs covered in each instrument described above. Each of the instruments captures information about key aspects of the model presented in Figure A-1. The Screener is not included below, because it does not contain any data of analytic value. Please refer to section 2.1 for information on Screener content.

Table A-2. Components and sources of data collection instruments

Instrument	Major components	Constructs	Source other than the ECLS-B
Parent Interview	Family Structure	Demographics	Census, ECLS-K
	School Experiences	Enrollment Issues, School Type, School Choice, Decision to Delay Kindergarten Entry, Transition from Preschool	ECLS-K, NHES, PEELS
	Child Development, Literacy, and School Readiness	Developmental Skills and Behavior Problems	ECLS-K, FACES, NHES
	Home Environment	Cognitive/Linguistic Stimulation and Domestic Violence	ECLS-K, EHS, FACES, NHES, NIES, NSFH
	Parenting Behavior and Attitudes	Emotional Nurturing	ECLS-K, NHES
	Child Care Arrangements	Use of Child Care	ECLS-K, NHES
	Child Health	Child's Eating Habits and Health	NHES, NHIS, NIDCD, NIH, NMIHS, OSEP, USDA
	Family Health	Parent's Physical and Mental Health	CES, ECLS-K, FACES, NIH, NMIHS, OSEP
	Marriages and Partner Relationships	Demographics	ECLS-K
	Neighborhood Quality/Safety	Quality of Neighborhood	EHS, NECRS, SIPP
	Community and Social Support	Religion and Involvement in the Community; Social Support	ECLS-K, NHES
	Respondent Information	Demographics	Census, CPS, ECLS-K, EHS, NHES
	Spouse/Partner Information	Demographics	CPS, ECLS-K, EHS, NHES, NLS
	Nonresident Biological Father's Information	Involvement with Child; Maternal Relationship; Child Support	ECLS-K, EHS, FF, NSFH, SIPP
	Welfare and Other Public Assistance	Receipt of Government Benefits	ECLS-K, FACES, USDA
	Household Income and Assets	Demographics	CPS, ECLS-K, FACES, NHES, PSID
	Household Food Sufficiency	Household Food Sufficiency	USDA
Child Assessments	Language	English Language Competence	preLAS@2000
		Receptive Vocabulary	PPVT
	Emergent Literacy	Phonological Awareness	CTOPP Elision
		Letter and Letter-Sound Knowledge	CTOPP Sound Blending
	Print Conventions	ECLS-K	

See notes at end of table.

Table A-2. Components and sources of data collection instruments—Continued

Instrument	Major components	Constructs	Source other than ECLS-B
Child Assessments —Continued	Early Reading	Word Recognition	ECLS-K
	Early Mathematics	Number Sense	ECLS-K, TEMA-3
		Counting	ECLS-K
		Operations	
		Geometry	ECLS-K
		Patterns	ECLS-K
Wraparound Early Care and Education Provider – Center Director	Center Information	Center Structure and Organization	ECLS-K, FACES
	Staffing	Number and Type of Staff	
	Center Services	Services Provided by the Center/Program	
Wraparound Early Care and Education Provider – Provider	Care of Focal Child	Frequency of Care, Number of Caregivers, and Language Used	CCS, ECLS-K, NHES, NICHD
	Other Children in Care	Caregiver-Child ratio and Language	ECLS-K, NCCS-CR, NICHD
	Caregiver Beliefs and Attitudes	Caregiver's Attitudes About Discipline, Kindergarten Readiness and Transition Activities, and Daily Hassles	CRPR
	Learning Environment	Access to Developmentally Appropriate Materials and Activities	ECLS-K, EHS
	Wraparound Care	Center/Program Characteristics, Curriculum and Activities	PCS
	Caregiver Background	Qualifications and Demographics	Census, ECLS-K, NAEYC-CA, NHES, NICHD
	Professional Development	Employer's Professional Development Offerings	ECERS
Teacher Questionnaire	Target Child's Social Development	Social and Behavioral Development	ECLS-K, FACES
	Class Characteristics	Race/Ethnicity	ECLS-K
		Class Size	
		Gender	
		Special Needs	
	Program Characteristics	Hours	ECLS-K
		Program Type	
	Class Activities	Interest Centers	ECLS-K
		Time Spent on Lessons/Projects	
		Physical Activities	
		Resources	

See notes at end of table.

Table A-2. Components and sources of data collection instruments—Continued

Instrument	Major components	Constructs	Source other than ECLS-B
Teacher Questionnaire —Continued	Instructional Activities/ Curricular Focus	Reading	
		Math	
		Computers	
		Science	
		Social Studies	ECLS-K
	Evaluation	Teacher Rating Procedures	
		National Assessments	ECLS-K
	Kindergarten Transition	Activities Offered to Ease Child's Transition	
		Readiness for Kindergarten Teaching	ECLS-K
	Attitudes	Teacher Background	
		Demographics	ECLS-K
		Teaching Certification Education/Staff Development	

NOTE: CCS = Comprehensive Child Study; Census = Census Bureau; CES = Center for Epidemiological Studies; CPS = Current Population Survey; CRPR = Child-Rearing Practices Report; ECERS = Early Childhood Environment Rating Scale; ECLS-K = Early Childhood Longitudinal Study, Kindergarten Class of 1998–99; EHS = Early Head Start; FACES = Family and Child Experiences Study; FF = Fragile Families; NAEYC = National Association for the Education of Young Children; NCCS-CR = National Child Care Study; NECRS NEILS = National Early Intervention Longitudinal Study; NHES = National Household Education Survey; NHIS = National Health Interview Survey; NIDCD = National Institute of Deafness and other Communicative Disorders; NIES = National Indian Education Study; NIH = National Institutes of Health; NLS = National Longitudinal Survey; NMIHS = National Maternal and Infant Health Survey; NSFG = National Survey of Family Growth; NSFH = National Survey of Families and Households; OSEP = Office of Special Education; PCS = Public Charter Schools; PEELS = Pre-Elementary Education Longitudinal Study; PPVT = Peabody Picture Vocabulary Test; CTOPP Elision = Comprehensive Test of Phonological and Print Processing, Elision; CTOPP Sound Blending = Comprehensive Test of Phonological and Print Processing, Sound Blending; preLAS@2000 = Language Assessment Scale – PreLAS 2000; PSID = Panel Survey of Income Dynamics; SIPP = Survey of Income and Program Participation; TEMA-3 = Test of Early Mathematics Ability-3; USDA = United States Department of Agriculture.

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES). *Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), Methodology Report for the Preschool Data Collection (2005–06), Volume II: Sampling.*

3. Use of Automated, Electronic, Mechanical, or Other Technological Collection Techniques

Data collection for the kindergarten wave of the ECLS-B will use a variety of computer-assisted interviewing (CAI) procedures, such as computer-assisted personal interviewing (CAPI) and computer-assisted telephone interviewing (CATI). CAPI will be used for the parent interview and the child direct assessment. CATI will be used for the WECEP telephone interview and for the screening of parents who do not respond to the mailing to identify kindergarten repeaters. Using CAI technology makes case management, interviewing, and data checking more efficient and ultimately reduces respondent burden. By allowing data to be preloaded, CAI technology eliminates the need to ask some questions and allows respondents to skip out of sections that do not apply. For instance, the parent interview section on marital adjustment applies only when the respondent is married or living with a partner; questions about marital adjustment will appear in the CAPI interview only when information about marital status gathered during the course of the interview indicates the questions are applicable. The computer program has screens that provide relevant prompts to collect certain information and has help screens that define terms or words. The CAI systems are particularly useful when questionnaires

contain complex skip patterns, because respondents are automatically routed to the appropriate questions, reducing error. This feature will not only prove helpful when using questions with many branches, but will be essential for the child cognitive assessment, which will include two-stage adaptive tests in language/literacy and mathematics, consisting of routing tests and either two or three different-level tests. The computer will score the routing test to determine what level test should be administered, thus eliminating the need for interviewers to make this determination themselves. Finally, the computer control system will also facilitate the sampling of child care/early education programs and will help keep track of teacher survey completions.

The teacher self-administered questionnaire will use paper-and-pencil methods and will be processed using Teleform scanning technology.

4. Efforts to Identify Duplication

Previous OMB submissions for the ECLS-B have indicated that the study was designed to supplement the ECLS-K by providing a downward age extension to the national cohort of school-age children. In other words, these two studies share content domains, but are not redundant. Rather, by collecting data from children from birth through approximately 6 years of age, the ECLS-B will provide information covering the critical early years of development that will elucidate our understanding of predictors and precursors of school readiness. By using many of the same constructs, questions, and cognitive items, it will be possible to statistically compare the two cohorts, providing a portrait of children extending from birth through eighth grade. For instance, questions regarding the home environment appear in the 2-year, preschool, and kindergarten ECLS-B parent questionnaires as well as in the kindergarten and first-grade ECLS-K parent questionnaires. Similarly, there are questions on the kindergarten parent questionnaire concerning the parent's involvement with the child's program/school that are similar to those found on the ECLS-K. Although there are a few differences at the item level between the ECLS-K and the ECLS-B, in each case the constructs include questions concerning activities and materials provided to the child that stimulate cognitive development. The overlap in content is also found on the child cognitive assessment, in which a significant portion of the cognitive assessment items were taken from the ECLS-K. This overlap will enable an examination of the long-term impact of early learning experiences on initial school readiness, and subsequently by comparison, on academic and social outcomes for children during the elementary grades, which is not possible using only the ECLS-K data.

In addition, as was also indicated in the previous OMB submissions, NCES designed the study in consultation with other federal agencies. For instance, agencies as diverse as the National Center for Health Statistics (NCHS), the National Institute of Child Health and Human Development (NICHD), the Administration on Children, Youth and Families (ACYF), the U.S. Department of Agriculture (USDA), and the Office of Special Education Programs (OSEP), National Center for Special Education Research (NCSE) of the U.S. Department of Education are also participating as sponsors for the study and have contributed to the funding, staff support, and questionnaire design content. Through their collaboration, duplication is avoided because these agencies will obtain data in which they are interested through the ECLS-B data collection and will not have to conduct similar studies. For instance, NICHD provided the content regarding health with input from other agencies.

As previous OMB submissions indicated, other national studies of child development have been conducted that address some of the same questions as the ECLS-B, but none meets all of the following criteria: being representative of the nation's population of young children, being prospective and longitudinal, and including direct child assessment. For instance, the National Household Education Surveys Program (NHES), sponsored by NCES, includes a random sample of U.S. households in which parents are queried about their children's educational experiences, including school readiness and early childhood program participation. While many of the same constructs are included in the ECLS-B and the NHES, and the ECLS-B has used items from the NHES, the NHES does not directly assess children. NICHD is sponsoring the Study of Early Child Care and Youth Development, a longitudinal study of 1,200 infants born in hospitals in 10 heterogeneous sites across the country. Children and their mothers have been seen in their homes and in a laboratory at regular intervals during infancy and preschool, observations of child care have been made, and the children are currently being followed at school age. Although this is a very valuable dataset that is publicly available for use, it has limitations in terms of providing national estimates because the sample was not randomly selected and disadvantaged groups are systematically excluded from the sample (i.e., low birth weight, special needs, and mothers who are English Language Learners). Likewise, the Bureau of Labor Statistics has sponsored the National Longitudinal Survey of Youth (NLSY) and the National Longitudinal Survey of Youth-Child Supplement, which examined the development of children born to female participants in the NLSY-79. These data have been used by many researchers and policy analysts, but the children are not nationally representative and the data are not longitudinal. The ACYF has sponsored the Head Start Family and Child Experiences Study (FACES), which is concerned with children's learning experiences in Head Start and includes individual assessments of children, interviews with their parents, and observations of their classroom. Although FACES is longitudinal, with one of the two cohorts being followed into first grade, the youngest children were 3 years old at the time of enrollment in the study, limiting what can be said about early development and experiences during the first 3 years of life. Moreover, the sample is only nationally representative of Head Start children and their families.

Finally, the ECLS-B has sought comparability with data from different surveys so that results can be shared and compared. Although data from these large-scale studies of children can and will be used as comparison groups for the ECLS-B, they do not offer the same breadth, depth, and representativeness as the ECLS-B data. To facilitate such comparisons, the ECLS-B has included many of the same constructs and questions as these studies, as was indicated in table A-2. To be able to address issues of national importance, such as the relationship between early child care experiences and school readiness for all children (including those with delayed kindergarten entry), the ECLS-B dataset is needed and the kindergarten 2007 wave represents a critical piece of this set.

5. Impact on Small Businesses or Small Entities

For those children who are in before- or after-school care, some of the child care providers contacted will be private child care organizations or family child care providers, both of which are unlikely to have the resources or extra staff available both to cover their child care responsibilities and to respond to interview requests. To reduce the burden on child care providers, RTI field data collectors will schedule interviews with them at times that are most

convenient given their work schedules, including during evening hours or on weekends. In addition, use of procedures such as CATI will make the data collection a more efficient process.

6. Consequences of Not Conducting the Data Collection

The ECLS-B has been designed as a longitudinal study, with multiple measures of the same constructs over time. The Kindergarten 2007 round is the last planned data collection point for this birth cohort. The data collected in the kindergarten 2007 round will provide the final link between the data collected in the four prior rounds of the ECLS-B with some of the most important outcomes being studied by this research effort, namely school readiness skills. The kindergarten year is also the only year in which the ECLS-B and ECLS-K studies overlap, which means these data are needed to allow analysts to analyze development from birth through eighth grade.

Without kindergarten entry data for all cohort members, the ECLS-B dataset would be limited with respect to the kinds of analyses that are possible. The ECLS-B kindergarten data collection is specifically designed to examine the transitions children make to formal education in kindergarten. The measures of child development, family practices, and before- and after-school care collected during the kindergarten 2007 round will provide an understanding of the role that parents/family and first teachers play in preparing children with delayed entry or kindergarten repeaters for school. The ECLS-K included a nationally-representative sample of kindergarteners, including on-time, delayed entry, and kindergarten repeater children. Collecting information on the school experiences of the delayed entry and kindergarten repeater children in the ECLS-B is therefore critical to make comparisons across the ECLS cohorts and thereby expand the utility of both projects. In short, collection of these data is critical for policymakers to know what needs to be done to better prepare this nation's kindergarten children for school entry.

7. Special Circumstances

There are no special circumstances related to this data collection.

8. Outside Consultation

As indicated in the response to question 4, the ECLS-B represents a collaborative effort by health, education, and human services agencies. Sponsors include the U.S. Institute of Education Sciences, National Center for Education Statistics (NCES); the National Center for Health Statistics (NCHS) of the Centers for Disease Control and Prevention; the National Institute of Child Health and Human Development (NICHD); the Office of Behavioral and Social Science Research (OBSSR); the National Institute for Deafness and Communication Disorders (NIDCD), and other components of the National Institutes of Health (NIH). Other sponsors within the U.S. Department of Health and Human Services include the Administration on Children, Youth and Families (ACYF); the Maternal and Child Health Bureau (MCHB) of the Health Resources and Services Administration (HRSA); the Office of the Assistant Secretary for Planning and Evaluation (ASPE); and the Office of Minority Health. The Economic Research Service (ERS) of the U.S. Department of Agriculture (USDA), the Office of Special Education Programs (OSEP), the National Center for Special Education Research (NCSER) and the Office of Indian Education (OIE) of the U.S. Department of Education are also participating sponsors

for the study. Individuals from these agencies participated in meetings to solicit their input into decisions regarding sampling, instrument development, and timing of the data collections. For the kindergarten wave, representatives of several of these agencies contributed or reviewed questionnaire items. Interagency agreements exist between NCES and the following other federal agencies: NICHD; OBSSR, NIDCD, NCHS; ACYF; USDA; OSEP; NCSER; OIE; MCHB; and ASPE.

In addition, a technical review panel (TRP) took place in March 2007, wherein co-sponsors and national experts met and provided review for and comment on the study design and instruments. Ten TRP meetings have been held between 1998 and 2007. Table A-3 presents current and former members of the TRP along with their areas of expertise.

Table A-3. Members (both current and former) of the ECLS-B technical review panel (TRP)

TRP member name	Affiliation	Area of expertise
Martha Abbott-Shim	Quality Counts	Quality of child care
Emily Arcia	Miami Beach, FL	Latino family issues, attention deficit hyperactivity disorder (ADHD)
Kathryn Barnard (former member)	University of Washington School of Nursing	Early parent-infant relationships and effects on development
Susan Bredekamp	Child Development Associates Council for Early Childhood Recognition	School readiness, policy issues
Martha J. Cox	Department of Psychology University of North Carolina at Chapel Hill Frank Porter Graham Child Development Center	Infant-parent relationships and children's security of attachment
Susan Fowler	University of Illinois at Urbana-Champaign College of Education	Children's language acquisition and use through testing and observation
Thomas Jordan (former member)	Chesterfield, MO	Longitudinal studies of children
Milt Kotelchuck	Department of Maternal and Child Health Boston University School of Public Health	Pediatrics and child health policy
Kristin Moore (former member)	Child Trends	Father involvement
Barbara Alexander Pan	Harvard Graduate School of Education	Conversation and language between parents and children
Elizabeth Peters	Department of Policy Analysis and Management	Economics of the family including child support, child care, marriage, and divorce
Suzanne Randolph	University of Maryland Department of Family Studies	Child development among African-American families, parent-child interaction
Aline Sayer	Amherst, MA	Multilevel modeling, growth curve analysis
Heidi Schweingruber	National Academy of Sciences	Early Childhood Math and Science
Susan Speiker	University of Washington	Special education, policy and programs
Brian Vaughn (former member)	Human Development and Family Studies Auburn University	Attachment research, social and personality development during infancy and childhood, and development of social competence
Barbara Wasik	The Johns Hopkins University	Direct assessment and testing of children's language
Barry Zuckerman	Boston University School of Medicine Department of Pediatrics	Pediatrics and child health policy

Finally, a number of consultants to the study are providing their expertise regarding assessment and psychometrics. Dr. Philip Dale provided design expertise regarding the language development items to be included in the Parent Interview. Dr. Sally Atkins-Burnett worked directly with RTI in assembling the cognitive portion of the child assessment. Dr. Donald Rock advised RTI and its subcontractors regarding the procedures to be used to develop the adaptive assessments to be administered to the children.

9. Justification of Compensation

Each of the respondents will receive modest compensation for their time. Payments to respondents are primarily to help compensate them for the time associated with their participation in the study, because their participation is voluntary. The schedule of compensation is indicated in Table A-4 below. The amounts are modest given the time required of the participants. Just one incentive is paid for WECEP interviews, even though there may be two respondents in center-based cases: the program administrator and the teacher. In these cases, compensation is mailed to the program administrator.

A \$5 prepaid incentive will be included with the screening survey when it is mailed to parents of children enrolled in kindergarten in 2006 to determine eligibility for the kindergarten 2007 wave. The purpose of the prepaid incentive is dual-fold. First, the incentive will maximize response to the survey mailing, either through return of the completed screener or calls to the toll-free number, thereby reducing the amount of nonresponse prompting that will be required by telephone interviewers. Prompt response to the screening request is essential in augmenting the kindergarten 2007 sample with children who are repeating kindergarten prior to the in-person data collection effort. The incentive will also thank parents for the time spent completing the survey. Survey research literature has consistently shown that providing a small, prepaid incentive increases response rates in the range of 10 percent to 30 percent (Dillman 2000; James and Bolstein 1990, 1992; Church 1993). The prepaid incentive creates trust and a sense of goodwill towards the sponsor and the questionnaire in the mind of the respondent. The respondent then feels a sense of obligation to complete and return the questionnaire (Dillman 2000).

Two studies show that offering up-front incentives reduce the cost of completing interviews relative to an increase in respondent incentive (Duffer et al. 1994; Warriner et al. 1996). Thus, implementing an incentive plan is a cost-effective way to collect data, and could, over the course of data collection, actually reduce costs and burden to respondents by reducing the need for additional calls to potential respondents. Based on our experience with panel maintenance activities in the kindergarten 2006 wave, we estimate a 30 percent return rate for completed screeners without the prepaid incentive. The inclusion of the \$5 incentive is expected to yield an increase of approximately 15 percent in the response to the initial screener mailing, resulting in a significant reduction in the number of nonresponse prompting calls required by telephone interviewers.

Parents who are screened by telephone as part of the nonresponse prompting effort but who report they did not receive the initial mailing containing the incentive will be mailed the \$5. There will be no further incentive included in the second mailing of the screener.

Table A-4. Compensation for participants in the ECLS-B National Collections

Study component	Compensation in				
	9-month round	2-year round	Preschool round	Kindergarten round 2006	Kindergarten round 2007
Screening interview	†	†	†	†	\$5
Parent interview	\$50	\$30	\$30	\$30	\$30
Child assessment	Book and bib	Book	Play-Doh and ancillary materials	Book	Book
Resident father	\$0	\$0	\$0	†	†
Nonresident father	\$20	\$20	†	†	†
ECEP	†	\$20	\$20	\$20	†
WECEP	†	†	†	\$20	\$20
Teacher questionnaire	†	†	†	\$10 ¹	\$10 ¹

† Not applicable: the component was not administered in that round.

¹ Teachers receive a \$10 gift card redeemable at a national bookstore chain. All other dollar amounts listed are cash incentives.

NOTE: ECEP = early care and education provider. WECEP = Wraparound Early Care and Education Provider.

NOTE: The father incentive was given as part of the parent incentive in the 9-month round. Subsequent experiments determined this not to be effective, and the parent incentive was reduced in the following rounds.

NOTE: Parents received the amount indicated per sampled child, so parents of twins in the K07 round would receive \$60.

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES). *Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), Methodology Report for the Preschool Data Collection (2005–06), Volume II: Sampling.*

10. Assurance of Confidentiality

All data collection activities will be conducted in full compliance with U.S. Department of Education regulations to maintain the confidentiality of data obtained on private persons and to protect the rights and welfare of human research subjects. Respondents will receive information about confidentiality protections during the informed consent procedure. Respondents will be informed that all of the information they provide will be kept strictly confidential and that the results of the study will be presented only in aggregate form. All field data collectors will be knowledgeable about confidentiality procedures and will be prepared to describe them in full detail, if necessary, or to answer any related questions raised by respondents. The following procedures are routinely employed by RTI to carry out confidentiality assurances:

- All project employees sign a confidentiality pledge and a notarized affidavit of nondisclosure that emphasizes the importance of confidentiality and describes their obligations.
- Access to the file linking respondents' sample identification numbers and item-level data with their contact information is limited to project staff members who have signed confidentiality agreements. Access is regulated by the role and responsibilities of the project staff working on ECLS-B, including password control.
- Hardcopy documents are stored in locked files and cabinets. Discarded material is shredded.

- Computer files are protected with passwords and access is limited to specific users.
- Coding of data will be conducted in RTI's controlled access facility. Only authorized staff will have access to coding materials on the production floor or in the coding room.

During the preschool round, the ECLS-B deployed additional protocols to strengthen data security and handling procedures in the field and at RTI. These protocols addressed the safeguarding of physical materials the field, security of electronic data and shipping materials within the field and to and from RTI. Additionally, RTI implemented a data security and confidentiality training program for all project staff and field staff. These updated study protocols and training programs were used for the kindergarten 2006 round and, along with further improvements available through enhanced technology, will also be implemented for the kindergarten 2007 round.

The National Center for Health Statistics (NCHS) Research Ethics Review Board (ERB) will review the data collection protocol and the procedures used to ensure confidentiality. The NCHS ERB is responsible for ensuring all human subject protections are upheld. The ERB provides IRB oversight on this study because the study cohort was selected from birth certificates. These certificates were provided to NCHS from the states as part of the National Vital Health Statistics System, and the ERB has maintained its oversight. The informed consent procedure will include an explanation of the goals of the research program and how confidentiality is assured. Field data collectors will have responsibility for obtaining informed consent, as follows:

- Verbal informed consent from parents for their interview;
- Permission from parents for their child's assessment;
- Permission from parents to contact the before- or after-school care and education provider and administrator;
- Permission from parents to contact their child's teacher and school administrator;
- Verbal informed consent from child care providers and early education teachers for the WECEP interview; and
- Unsigned informed consent from teachers (consent statements will be printed on the front cover of the mail survey).

NCES will comply with the Privacy Act of 1974 [5 USC 552a], Privacy Act Regulations [34 CFR Part 5b], Education Sciences Reform Act of 2002 (ESRA 2002), Computer Security Act of 1987, USA Patriot Act of 2001, E-Government Act of 2002 [Title V, Subtitle A, CIP 2002], NCES *Restricted Use Data Procedures Manual*, and the NCES *Standards and Policies*. NCES will also comply with the Department of Education regulations for the Protection of Human Subjects (34 CFR Part 97) including Subpart D of this regulation, Additional Protections for Children who are Subjects of Research. RTI and all its subcontractors are required to comply with the applicable provisions of the legislation, regulations, and guidelines and to undertake all necessary steps to protect survey respondents and to guard against invasions of privacy.

All contractor staff members working on the ECLS-B project or having access to the data (including monitoring of interviews and assessments) are required to sign the NCES Affidavit of Nondisclosure, in addition to the RTI Confidentiality Pledge. Notarized affidavits are kept on file at RTI, and documentation is submitted to NCES on a regular basis. All contractor staff members working on the ECLS-B are also required to comply with security clearance procedures as required by ACS directive OM:5-101. After data collection, confidentiality is fully protected through the use of password-protected data files, and access to all physical written or electronic media containing individually identifiable data is strictly controlled.

RTI will prepare and deliver a restricted-use data file to NCES. Restricted-use data files may contain individually identifiable information, and are lent only to qualified organizations in the United States, using a strict licensing process. RTI will conduct a thorough disclosure risk analysis using the data included on the restricted-use file. If this analysis identifies respondents with high disclosure risk because the file contains data that could potentially be used to identify them, their data will be suppressed or masked using any of a variety of approaches. Swapping, using NCES-provided software, will be one of the methods used to mask the data. The NCES Disclosure Review Board will review and approve the approach used with the ECLS-B data. We expect that the procedures used for the kindergarten 2007 data file will be similar to those used for the 9-month, 2-year, preschool, and kindergarten 2006 files.

11. Justification for Sensitive Questions

Most of the data collection instruments for this study do not contain sensitive questions. However, there are a few exceptions in the parent interview. These are items that concern parental depression and relationship with spouse. Responses to these items are collected by means of ACASI, or audio-computer assisted self-interview technology. This allows respondents to enter their own responses directly into the interviewer's laptop, so that no one sees this information. These items provide information regarding the child's living situation and thus are contextual data of importance to the study. Parents will be advised during the informed consent process of the voluntary nature of their participation and their right to refuse to answer any question. They will also be assured that the responses will be held in the strictest confidence, with no names attached to any data. In addition, the primary caregiver/parent will also have the opportunity to consent separately for the child care and teacher components of the data collection. That is, we will not conduct these additional parts of the ECLS-B kindergarten data collection without the explicit informed consent of the primary caregiver/parent.

12. Estimates of Hour Burden

Table A-5 provides the estimate of time burden.

13. Estimate for the Total Annual Cost Burden to Respondents or Record-keepers Resulting from the Collection of Information

There are no costs to individual respondents other than their time to participate in the study. Nor are there any recordkeeping requirements associated with the ECLS-B.

Table A-5. Estimates of time burden

Instrument	National study		
	Expected number of respondents	Average burden hours/response	Total burden hours
Total	8,787	0.29	2,499
Sample screener	4,722	0.08	378
Parent interview	1,824	0.80	1,459
Wraparound early care and education provider telephone interview—Home-based provider	287	0.50	144
Wraparound early care and education provider interview—Center/program director	172	0.17	29
Wraparound early care and education provider interview—Center/provider	172	0.50	86
Teacher self-administered questionnaire	1,610	0.25	403

NOTE: Numbers represent respondents and burden for the kindergarten 2007 data collection only.

NOTE: Total burden hours reported is the sum of the burden hours for each instrument, not the product of total expected respondents by average burden hours. Burden hours associated with the child assessment are not included.

NOTE: The child sample includes children who were respondents to the kindergarten 2006 wave who had not begun kindergarten at the time of the 2006 parent interview (expected to be 25% of the kindergarten 2006 respondents), as well as respondents to the kindergarten wave who are repeating kindergarten in 2007 (expected to be 5% of the kindergarten 2006 respondents). About 20% of the ECLS-B sampled children are twins, and after applying these rates the responding child sample will include approximately 55 children who are twins and repeating kindergarten in 2007. It is possible that a very small percentage of these 55 children will be members of a twin pair where one child repeats kindergarten and the other does not. However, it is expected that this will occur very rarely and have minimal impact on burden. In this situation, both children will be included in the kindergarten 2007 sample and direct child assessments and the WECEP interview conducted for both twins. Only teachers of the twin in kindergarten will be asked to complete the teacher SAQ.

NOTE: The Wraparound early care and education provider (WECEP) telephone interview—center/program director and center/provider instruments usually have separate respondents. However, there will be approximately 11 percent (n = 19) of respondents who participate in both the administrator and provider portions of the Wraparound early care and education provider interview. Therefore, 19 of the 172 center/provider respondents will be the same people who responded to the administrator portion. These respondents will have average burden hours/response of 0.67 (0.17 plus 0.50), and total burden hours of 13.

14. Estimates of Annualized Costs to Federal Government

NCES issued a call for a capability statement from institutions holding a Multiple Award Task Order (MATO) with the U.S. Department of Education to select a contractor for the K-1 wave of the ECLS-B.¹ RTI was awarded a 5-year task-order contract that is being funded incrementally. The 5-year award is \$16,532,258 (including base fee). Approximately 94 percent (\$15,531,655) of the level of effort of this award is directly related to the collection, analysis, and reporting of the data described herein. Of this, an estimated \$2,873,847 is associated with the Kindergarten 2007 round of data collection covered by this package.² The average annual cost over three years will be \$957,949 per year. The estimated annual cost by fiscal year related to data collection, analysis, and reporting is as follows.

FY2007	\$ 2,011,693
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¹ The first-grade round of data collection has subsequently been eliminated. However, kindergarten data will also be collected in fall 2007 for those children not yet enrolled in kindergarten in fall 2006, and for kindergarten repeaters.

² An additional \$598,495 associated with the kindergarten repeater portion of the data collection has been approved by technical project management and is pending award. The majority of those funds will be spent in FY2008.

FY2008	\$ 574,769
FY2009	\$ 287,385

These costs include personnel, benefits, travel, overhead, supplies, and indirect costs. The estimate is based on expected time to produce, train personnel, and administer the instruments and to analyze and report the data. These time estimates are based on RTI's previous experience managing data collection efforts of this type.

15. Reasons for Program Change

There is a program change of -11,362 burden hours. The reduction in burden hours is due to the fact that the Kindergarten 2006 national data collection round has been completed as of spring 2007. The burden hours associated with this collection are due to this additional (smaller) data collection composed of a group of kindergarten repeaters as well as those children who were not in kindergarten in the fall of 2006 due to age requirements.

16. Plans for Tabulation and Publication of Data

Three reports are planned for the kindergarten wave of the ECLS-B. Each of these reports will be completed by late 2008. However, given the wealth of data generated, over time there will be numerous other publications and presentations developed using these data.

The first report, a First Look, will be used to release the survey data. This report will provide descriptive information about children born in the United States in 2001 when they have reached kindergarten age. It will present information on certain child and family characteristics, on children's mental and physical skills, on children's experiences in child care.

The second report will be a Survey Analysis Report. It will address NCES/ED policy needs and will be sensitive to evolving issues in early childhood education. The report will target audiences among the education community, including early childhood practitioners, researchers, and policymakers. This report will be used to adjudicate the data files and stimulate interest in use of the data. The Survey Analysis Report will consist of 50 to 75 pages, organized in the following eight sections:

- A short introduction with a brief review of relevant literature, including the literature on early childhood development; specific studies that provide a context for understanding preschool-age children, families, father involvement, and child care provider influence on children's growth and development; and studies on preparation for home-to-school transition.
- A brief description of the study design, goals, research questions, scope, and aims of each study component and specific information to assist readers in gaining a clear understanding of the study population and research approaches.
- Findings, including salient results to answer the research questions; characteristics of children achieving developmental milestones by age, sex, ethnicity, and region reported; characteristics of households, including parent (mother/father) involvement in children's learning experiences and variations in children's out-of-home care

arrangements; and relationship between early learning experiences and developmental milestones at over time.

- Summary of salient findings and conclusions with implications for the early childhood community, researchers, practitioners, and policymakers.
- Tables and standard errors, description of the approach, guidance for application, and use of tables and weights.
- Figures from table data.
- A methodology section that describes in greater detail the study design and methods, including the characteristics of the sample used in the analysis, operational definitions of the variables found in the report, and tests of significance used.
- An acknowledgments section.

The third major report to be prepared using data from the ECLS-B will be a Methodology Report. Prepared for a variety of audiences, the Methodology Report will contain three volumes: operations and sampling reports for NCES internal use and available to users upon request, and a psychometric report. The psychometric volume will be publicly available for analysts. This report will document the entire ECLS-B Kindergarten data collection process, including the design of assessment instruments; the development of assessment procedures; instrumentation; psychometric characteristics of the ECLS-B Kindergarten cognitive, indirect, and psychomotor battery; item nonresponse rates, unit nonresponse rates, and nonresponse bias; imputation analysis; and item scaling.

The psychometric portion of the report will be patterned after the presentation of technical materials and report format presented in the psychometric reports prepared for the 9-month, the 2-year, preschool, and kindergarten 2006 data collections. It will provide psychometric characteristics of the assessment battery and will include tables, charts, and figures to clarify the content. In addition, it will discuss comparing assessment scores to benchmark data or norms and issues concerning weighting and data imputation. With a focus on the technical quality of the study, this report will detail study procedures and properties of assessment instruments, including the design and procedures used in all study components. All relevant features of the study, in addition to any special problems encountered, will be explained in appropriate sections. The report will contain text, tables, and figures in accordance with previously approved table shells and outlines. It will also contain all required sections (table of contents, list of figures, and list of tables), description of the appropriate ECLS-B component data and methodology, performance of the kindergarten assessment battery, and any supporting technical tables necessary.

In addition to the reports described above, NCES will prepare descriptive reports from time to time regarding the issues described in section A, item 1 (Circumstances Making Collection of Information Necessary, subhead Issues Addressed by the ECLS-B). Furthermore, one of the major aims of the ECLS program is to provide researchers with data they can use to answer questions regarding child development, family characteristics and influences, child care, and educational attainment. We expect that there will be a host of reports and presentations that will utilize the datasets resulting from this data collection effort.

17. Request for Approval to Not Display OMB Approval Expiration Date

The present submission does not request such approval. The expiration date will be displayed along with the OMB approval number.

18. Exceptions to the Certification Statement in Item 19 of OMB Form 83-1

No exceptions to the certification statement are requested or required.

B. Collection of Information Employing Statistical Techniques

1. Respondent Universe and Sampling Selection to Be Used

Previous OMB submissions have described the ECLS-B sample. Briefly, it consists of approximately 14,000 births that occurred in the calendar year 2001. Births were selected through a stratified, three-stage sample of birth certificates as they were provided by states to the National Center for Health Statistics (NCHS) during 2001 and early 2002. The births were sampled in about 114 primary sampling units (PSUs) throughout the United States. Interviews were completed with 10,688 parents in the first round of data collection, when children were approximately 9 months old. At 2 years, 10,597 of the 10,688 9-month respondents were still alive and in the United States, and there were 9,835 complete parent interviews; this represents a 99 percent eligibility rate and 93 percent response rate. The preschool data collection included all respondents to the 2-year data collection as well as nonrespondents to the 2-year data collection who were classified as American Indians/Alaska Natives. American Indians/Alaska Natives are one of the smaller analysis domains and nonrespondents were included to help maintain a larger sample size. The preschool sample consisted of 9,902 children, and there were 8,941 completed parent interviews.

Currently in the field, the kindergarten 2006 data collection is attempting to interview respondents to the preschool data collection as well as 2-year respondents who were classified as American Indian/Alaska Native. An 85 percent subsample of this set of children was fielded at kindergarten 2006 to control the costs of the data collection. This subsample was allocated disproportionately to the ECLS-B domains to maximize the sample size (and precision) for the smaller domains. The kindergarten 2006 sample consisted of 7,657 children. Assuming that 99 percent of the sample is still eligible for ECLS-B, and that 90 percent of those who are eligible complete the parent interview, we expect about 6,822 children to have parent responses to the kindergarten 2006 wave.³

The kindergarten 2007 sample will comprise all of the children with a parent interview at the kindergarten 2006 round who had not started kindergarten by the time of the kindergarten 2006 parent interview. It will also include kindergarten repeaters in fall 2007 among those whose parents participated in the kindergarten 2006 wave. Together, an expected 30 percent of the kindergarten 2006 respondents will be included in the kindergarten 2007 data collection. Using the above eligibility and response assumptions, the kindergarten 2007 sample will consist of an estimated 2,047 children. Nonrespondents to the 9-month interview were not included in either the prior waves and will not be a part of the kindergarten 2007 data collection.

2. Procedures for Collection of Information

2.1 Statistical Methodology for Stratification and Sample Selection

Information on the ECLS-B sample design and weighting methodology presented here was obtained from documentation (e.g., the methodology reports and data user's manuals) for the 9-month, 2-year, and preschool data collections, and from the final response status from the

³ These are current eligibility and response rate expectations for the kindergarten 2006 data collection.

preschool data collection. Such documentation from the K06 collection is not yet available at the time of this submission.

Original sample. Previous submissions to OMB have described the statistical methodology used for stratification and sample selection. In brief, the main ECLS-B sample consists of 96 PSUs selected to represent all infants born in the United States in the year 2001. The sample design was developed to obtain target effective sample sizes for 11 separate analytic domains:

- Race/Ethnicity: Hispanic, Black, Asian and Pacific Islander (except Chinese), Chinese, American Indian/Alaska Native, and White.
- Birth weight: very low birth weight, moderately low birth weight, and normal birth weight.
- Plurality: twins, all other singleton and multiple births.

For the American Indian/Alaska Native domain, it was necessary to select a supplemental sample of 18 PSUs where the population had a high proportion of American Indian/Alaska Native births. These two different PSU samples are referred to as the core and American Indian/Alaska Native supplemental PSU samples, respectively.

For the core sample, a three-stage sampling procedure was used. In the first stage, a stratified sample of 96 PSUs, consisting of counties or groups of contiguous counties, was selected with probability proportional to size. At the second stage, some large sampled PSUs were subdivided into smaller groups of counties (second-stage units, or SSUs) to increase the clustering of sampled births and thus decrease travel costs. At the third stage, individual birth certificates were sampled from lists provided by state registrars for counties sampled for the ECLS-B. Birth certificates were sampled at different rates from each of 36 strata defined by a cross-classification of all levels of the three main analytic domains.

To select the American Indian/Alaska Native supplemental PSUs, a separate sampling frame of areas with high prevalence of American Indian/Alaska Native births was constructed, focusing particularly on areas with reservations. An independent sample of 18 PSUs was selected from this sampling frame to provide the supplemental American Indian/Alaska Native PSU sample in areas where American Indians/Alaska Natives are concentrated. In addition, the sampling fraction for American Indian/Alaska Native births in the core sample was set at a corresponding fraction to represent American Indian/Alaska Native births in other areas. The full sample of American Indian/Alaska Native births is obtained by combining this supplemental 18 PSU sample with the American Indian/Alaska Native births sampled in the core sample.

2.2 Kindergarten 2007 Sampling Procedures

All respondents to the kindergarten 2006 interview who had not started kindergarten by time of the kindergarten 2006 parent interview will be included in the kindergarten 2007 data collection activity. Additionally, the 2007 sample will include kindergarten repeaters among those whose parents participated in the 2006 wave.

2.3 Estimation Procedures

Because a nationally representative unequal probability sample of births was drawn for the ECLS-B, weights will be required for unbiased estimation. The kindergarten weighting steps will be similar to those used for the 2-year, preschool, and kindergarten 2006 waves, and will include adjustments for nonresponse to the kindergarten 2007 wave. The base weight used for the adjustments for kindergarten 2007 nonresponse will be the analysis weight for analyzing the kindergarten 2006 parent data. Response propensity modeling will be used for the weight adjustments, where the dependent variables in the model are obtained from the birth certificate data and prior round interviews. It is expected that a similar set of variables as was used for the 2-year, preschool, and kindergarten 2006 weights will be used for the kindergarten 2007 nonresponse weight adjustment. Variables used for the weight adjustments at preschool include the following: types of activities the parent participates in with the child, attitudes toward raising children, demographic characteristics of the child, parents' highest levels of education, household income, whether the child is in child care, poverty status, region, SES indicator, urbanicity, alcohol and tobacco use by the parents, and work status of the parents.

The kindergarten 2007 data collection consists of a number of components at the parent, child, child care provider, and teacher levels, and a corresponding set of weights will be required for use with each component. In addition, because the kindergarten 2007 data collection is the fifth data collection point in a longitudinal study, weights will be required for analyzing respondents to the components across time.

The data files will also contain a set of replicate weights and stratum and PSU codes to enable variance estimation for complex sample designs. The following sections discuss these steps in more detail.

Sets of weights. Many types of weights can be produced for the respondents to the kindergarten follow-up, including

- weights for analyzing respondents to the kindergarten 2007 follow-up, and
- longitudinal (or panel) weights for analyzing respondents to all five of the data collection points (9 months, 2 years, preschool, kindergarten 2006, and kindergarten 2007).

Weights can be computed for analyzing the components, including

- parent questionnaires,
- child assessments,
- child care provider questionnaires, and
- teacher questionnaires.

The sets of weights that are needed will be decided after looking at the response patterns to the surveys, and based on the analytic objectives as expressed by NCES. Response patterns will be analyzed by constructing indicator variables for whether the child has each of the components for each data collection point, and looking at a cross-tabulation of these indicator variables.

Base weights. Because the 9-month data collection nonrespondents will not be contacted for follow-up in the kindergarten data collection, kindergarten respondents will be a subset of the 9-month data collection respondents. Because the kindergarten 2007 sample consists of all kindergarten 2006 respondents, the kindergarten 2006 response-adjusted parent analysis weight will serve as the base weight.

Weight adjustments. The main objectives in adjusting sampling weights include correcting for survey nonresponse and survey undercoverage. In addition, adjusting to population totals through poststratification can reduce standard errors.

Weighting adjustments can be separated into two general types: sample-based adjustments such as nonresponse adjustments, and population-based adjustments such as poststratification. In sample-based adjustments, data from the sampling frame (or previous round) are used to adjust the respondent sample so that it represents the whole sample (i.e., both respondents and nonrespondents). In population-based adjustments, weights for respondents are adjusted to make sample estimates with the adjusted weights conform to known population values.

Sample-based adjustments. We will first adjust the base weights for the kindergarten 2007 data collection nonresponse. In this survey, a kindergarten data collection “nonrespondent” is any prior round respondent who was included in the kindergarten data collection for whom survey data are not collected. Nonresponse can result from a number of causes, for example,

- being unable to locate;
- refused to participate;
- participated, but provided incomplete or inadequate data for scoring;
- interviewer could not enter premises to contact;
- not available during data collection period; or
- located too far outside sampled PSU to follow.

Children who are deceased or who have moved outside of the country will be treated as ineligible instead of nonrespondents for the data collection.

The kindergarten data collection response dispositions in conjunction with prior round questionnaire data and frame data will be used to identify variables that can be used to adjust the weights for kindergarten nonresponse. As noted earlier, variables used for adjusting the weights will be similar to those used for the 2-year, preschool, and kindergarten 2006 weight adjustments.

Population-based adjustments. The kindergarten 2007 data collection nonresponse adjusted weights will be adjusted for undercoverage and variance reduction using raking or poststratification. If the population counts of the interior cells of the cross-tabulation are known (as they are in this case), and the corresponding sample counts are reasonably large, the weight adjustment should be applied at the cross-tabulation cell levels and is called poststratification. However, raking may be used even if the cell counts are known when the cell sizes are small.

Through the NCHS natality detail files, there is sufficient flexibility to generate counts for any level of cross-classification for the ECLS-B weighting adjustments. Raking will be used as the primary tool in adjusting sampling weights because it allows for more variables to be included in the adjustments. Cell definitions will be based on variables such as the three sampling domains (race/ethnicity, birth weight, and plurality) as well as other variables such as census region. The kindergarten 2007 respondents will be augmented with the kindergarten 2006 respondents who were not included in the kindergarten 2007 data collection because they had already started kindergarten. This combined file will be used and adjusted to the same population counts (i.e., the 2001 natality universe) used for the 9-month data collection population-based adjustments. Immigration will not be reflected in the totals, and emigration will be treated as ineligible in this adjustment.

Variance estimation. Replicate weights will be provided for jackknife variance estimation (paired jackknife replicate weights, for use with software that analyzes complex survey designs). These replicate weights were computed for the 9-month, 2-year data, and preschool data, and similar weights will be computed for the kindergarten 2006 data. In addition, the stratum and PSU identifiers to support variance estimation using the Taylor Series approximation method will be provided. A single set of stratum and PSU identifiers are sufficient for the ECLS-B; the construction of these variables will start with the comparable variables on the 2-year and preschool data files. Respondent counts will be examined for the various weights to ensure that each pseudo PSU contains at least two observations. A brief description of each method of variance estimation follows.

Replication and replicate weights. Variance estimation can be conducted using replicate weights and the appropriate software. Many software packages (e.g., SUDAAN, WesVar, Stata, AM) can use jackknife weights to calculate correct standard errors. Jackknife replicate weights will be available for users on the ECLS-B data files. They will be calculated given the full sample weighting steps described above, by repeating all of the weighting adjustment steps (base weights, nonresponse, population-based adjustments) independently for each replicate sample.

Taylor Series approximation. Taylor Series approximation methods produce a linear approximation to the survey estimate of interest; then the variance of the linear approximation can be estimated by standard variance formulae. When variables involved in the raking adjustment of the weights are included in the analyses, the Taylor series approximation of the variance is poor compared to jackknife methods for the ECLS-B data. Because the raking variables are often a part of the analysis for users of the ECLS-B data, the Taylor series approximation is not recommended. However, the variables needed for Taylor series approximation will be included on the dataset for ECLS-B users who do not have access to software for jackknife variances.

The formulae for the Taylor series approximation are as follows:

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 θ , then

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

and

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

Stratum and first-stage unit identifiers will be provided as part of the data file to be used with software such as SUDAAN, STATA, and the SAS survey data analysis procedures.

Degree of accuracy needed. Table B-1 gives estimates of the kindergarten 2007 sample size, eligible sample size, and number of complete interviews (by subgroup) that are expected (under the assumption that the kindergarten 2007 sample consists of kindergarten 2006 completers who had not yet started kindergarten, expected to be about 25 percent of the kindergarten 2006 sample). Assuming that 99 percent of the kindergarten 2006 sample of children are eligible and that that 90 percent respond to the kindergarten 2006 round, and that 25 percent have not yet started kindergarten at the time of the 2006 parent interview, the kindergarten 2007 sample will consist of an estimated 1,706 children. Assuming that 99 percent are still eligible at the kindergarten 2007 round and that 90 percent respond, the kindergarten 2007 round will yield 1,689 eligible sample members with 1,520 responding parent interviews.

The ECLS-B sample was designed to support analyses for 11 specific subgroups from three separate but overlapping domains (race/ethnicity, birth weight, and plurality). Therefore, the expected subgroup counts given in the table sum to more than the expected total. The fifth column of table B-1 gives the estimated effective sample size. The effective sample size is the actual sample size divided by the survey design effect; the effective sample sizes for the subgroups will not sum to the effective sample size for the total sample because the design effects vary across the subgroups. Table B-1 gives the estimated design effect due to unequal weighting for each of the analysis domains.

2.4 Circumstances Requiring Specialized Sampling Procedures

None.

Table B-1. Estimated ECLS-B Kindergarten 2007 sample and number of children with parent completes by subgroup

Category	Initial sample size for kindergarten sample	Estimated eligibles	Expected number of respondents	Estimated design effect for parent estimates	Effective sample size
Total	2,047	2,027	1,824	2.05	890
Race/ethnicity:					
Hispanic	290	288	257	1.36	189
Black	328	326	287	1.43	202
Asian and Pacific Islander (excluding Chinese)	244	236	210	1.20	175
Chinese	92	90	80	1.23	65
American Indian/Alaska Native	217	217	191	1.08	177
White/all others	876	870	799	1.73	462
Birth weight					
Very low birth weight	233	233	209	1.17	178
Moderately low birth weight	326	320	290	1.59	183
Normal birth weight	1,488	1,474	1,325	1.72	770
Plurality					
Twins	355	349	322	1.18	273
Singleton and other multiple births	1,692	1,678	1,502	1.80	835

NOTE: Detail may not sum to the total due to rounding. The sample for the kindergarten 2007 wave will include those children who were respondents to the kindergarten 2006 wave who had not begun kindergarten by the time of the kindergarten 2006 parent interview; this is expected to be 25 percent of the kindergarten 2006 respondents. The sample will also include those children who were respondents to the kindergarten 2006 wave who are repeating kindergarten in 2007; this is expected to be 5 percent of the kindergarten 2006 respondents. The second column assumes a 99 percent eligibility rate. The third column assumes that 90 percent of eligible cases will have a parent interview. The design effect column reports the expected design effect due to unequal weighting, after accounting for nonresponse adjustments and the subsampling that occurred at the kindergarten 2006 wave. The domains in the effective sample size column will not sum to the total because the design effects vary across the domains.

SOURCES: RTI International, previously unpublished tabulations (January 2007)

3. Methods Used to Maximize Response Rates

As on any longitudinal study, high response rates are necessary not only for each individual round of data collection but also to achieve a high cumulative response rate as the study moves forward. Obstacles to participation vary across the components of the ECLS-B study, and therefore, the solutions must vary as well. We discuss our strategies for the different components below. Estimates for refusal rates and unlocatables for the kindergarten 2007 round are based on data collection for kindergarten 2006, which has not yet been completed.

3.1 Maximizing Screening Response Rates

A mixed-mode approach will be used to maximize the response rate for the screening survey identifying kindergarten repeaters for inclusion in the kindergarten 2007 sample. A 45 percent response rate is estimated for the initial screener mailing, which will be conducted via priority mail and include a \$5 prepaid incentive. The incentive is designed to encourage return of the completed screener or calls to RTI to complete the screening by telephone. Sample members

who do not respond to the mailing will be contacted by RTI telephone interviewers to obtain the eligibility information and update contact information. Of the 55 percent of the cases requiring telephone follow-up, it is estimated that 15 percent will not be reached by telephone during the screening period (i.e., sample member's number is unlisted or disconnected, or there is no telephone service). As needed, intensive tracing of sample members who have moved or who cannot be reached by telephone will be initiated, as described in section 3.2. A final nonresponse mailing by Federal Express will be conducted in an effort to maximize screening response rates. All children found to be repeating kindergarten in fall 2007 will be included in the kindergarten 2007 sample.

3.2 Improving Home Visit Response Rates

Parent response rates at the baseline data collection (9-month) were 77 percent unweighted and 74 percent weighted. The unweighted parent response rate for the 2-year round of data collection was 93 percent and 93 percent weighted. At the preschool round, the unweighted parent response rate was 91 percent; 91 percent weighted. We anticipate achieving a targeted 90 percent response rate for the kindergarten 2006 round and a targeted 90 percent response rate for the kindergarten 2007 round for parents who responded to all prior rounds of ECLS-B. Data collection for both K06 and K07 will be ended when the response rates reach 90 percent for budgetary reasons. The response rate is the number of completed parent interviews divided by the total eligible sample.

In the baseline round, the majority of the nonresponding cases were refusals (14 percent), with additional nonresponse resulting from the families not being located (6 percent) and for various other reasons (5 percent). At 2 years, the percentage of refusals was 3 percent, with 2 percent of the families not located. In the preschool round, 4 percent of nonresponse cases were refusals, and 1 percent were unlocatable. In the kindergarten 2006 round, we anticipate approximately 4 percent refusals, approximately 1 percent unlocatables, and approximately 5 percent for all other noninterviews. The lower percentage of unlocatables expected in the kindergarten 2006 round is largely due to the short time that elapsed since the preschool round and to the availability of Social Security numbers (SSNs) for tracing sample members who provided them during preschool round interviews. The lower percentage of refusals expected in the kindergarten 2006 round is attributed to the sample being composed almost entirely of respondents from the preschool round and to refined refusal conversion techniques. With continued updating of sample member contact information and collection of SSNs during kindergarten 2006, improved refusal conversion techniques, and a significantly shorter parent interview (45 minutes versus 80 minutes) in the kindergarten 2007 round, we anticipate improving kindergarten 2007 round nonresponse rates to at least a 90 response rate for those who responded to all prior rounds.

About 1 percent ($n = 109$) of the cases in the 9-month data collection were found to have moved by the time of the 2-year data collection to a residence outside of the 75 mile radius of their primary sampling unit (PSU) recorded at 9 months. Because this distance was considered outside the canvassing area of field staff, these sample members were not followed in the 2-year round of data collection. In the preschool round, interviewers attempted telephone interviews with parents only for cases outside the 75 mile radius. A total of 240 interviews were completed by telephone; however, two of the cases beyond the 75 mile radius could not be completed by

telephone or in person. For the kindergarten 2006 round, the radius was expanded to 100 miles and 137 cases were completed by telephone. Due to a smaller and less clustered sample in the kindergarten 2007 round, we anticipate increasing the radius and using traveling interviewers to do in-person interviews within a larger radius. However, telephone interviews will still be conducted with parents who have moved outside of this larger radius.

The kindergarten 2006 sample included an 85 percent subsample of the responders to the preschool round, as well as nonrespondents to the preschool round classified as American Indians/Alaska Natives, yielding a total of 7,657 cases. Although refusal rates in the kindergarten 2006 round are currently lower than experienced in the preschool round, refusal conversion techniques are being used to minimize this source of nonresponse as much as possible. One strategy commonly used with refusal cases is to set the cases aside and attempt contact later when the sample member may be in circumstances more favorable for a positive response to the interviewer. Other strategies for refusal conversion that worked well in the kindergarten 2006 round and that will be used again in the kindergarten 2007 round include:

- transferring a refusal case to another interviewer in the area for in-person follow-up;
- having a field supervisor follow up by telephone with the refusing sample member;
- mailing another lead letter via FedEx and then following up by telephone;
- sending a refusal conversion letter via FedEx specifically tailored to address the sample member's concerns or objections (i.e., too busy, not interested in continued participation, etc.) and following up by telephone; and
- as a last resort, conducting a telephone interview with parents who will not allow an in-home visit.

While refusals to follow-up rounds are usually low, a potentially greater source of nonresponse is likely to be sample members whom the interviewers cannot locate. To address this issue in the kindergarten 2006 round, we mailed a letter and a postage-paid contact information update card to the sample families at their last known address in July 2006. A month before this mailout, cases were checked against the National Change of Address (NCOA) database to obtain any address updates filed with the U.S. Postal Service. Cases were also submitted to Telematch, a company that provides telephone number updates from white pages all over the country. We plan to repeat these procedures on the same schedule for the kindergarten 2007 round. However, the items on the postage-paid contact information update card will be embedded in the kindergarten repeater screening instrument to minimize mailings to parents of children who were in kindergarten in 2006.

The purpose of the mailing is twofold. First, the letter updates parents on the current status of the study and specifically informs them that RTI will be conducting the next round of data collection and provides them with the timeline. We also provide sample members with a toll-free telephone number to call with any questions.

Second, the mailing helps us to identify sample members who have moved and update our locator records through a variety of techniques. For example, sample members can fill out

and return the postage-paid contact information update card noting whether they had moved or if they plan to move between their receiving the mailing and the beginning of data collection. They are also given the option to call the toll-free number with any locator information updates. Finally, all returned mail (i.e., bad address, no such address, undeliverable, etc.) is monitored and the information is added to our control system for later follow-up.

We also plan to resubmit all cases to NCOA and Telematch to receive the latest address and telephone information several weeks before kindergarten data collection begins. RTI's tracing unit will use the databases described below for those cases classified as unlocatable.

In the preschool and kindergarten 2006 rounds of data collection, RTI collected parent SSNs for tracing purposes in follow-up rounds. Before we begin kindergarten 2007 round data collection, we will use FastData, which is a database that returns locating information based on SSNs. Only cases in which the sample member has provided us with an SSN and has not been located through NCOA or Telematch will be submitted to FastData.

In addition to these outside vendors, RTI's Tracing Operations (TOPS) unit is available for intensive tracing of unlocatable cases. TOPS tracers have access to multiple credit bureau databases, consumer and census-oriented databases, state Division of Motor Vehicle (DMV) records, and computerized residential telephone and address lookup services. In addition to database searches, tracers will also call contact persons named by the respondent in previous rounds of data collection and neighbors or relatives of the family identified through database searches.

Generally, earlier steps in the tracing process, such as confirming area codes for preloaded telephone numbers and conducting searches using the least expensive databases, will entail fewer costs. Later steps will involve more expensive searches that will be used only for the cases most difficult to locate. Starting in the kindergarten 2006 round, TOPS utilized SSNs when available to further aid in locating respondents. All steps conducted by the tracers, and their outcomes, were documented in the TOPS Case Management System (CMS). A detailed report of these steps was sent to the field interviewer who received the case after it was worked by TOPS. All information sent from TOPS to the field was in electronic form and remained on the field interviewer's laptop until the case was completed and data were transmitted back to RTI. Therefore, tracing data were secured from risk of loss or disclosure. We will use these same procedures in the kindergarten 2007 round.

Cases that do not have a telephone number in our control system will undergo intensive tracing by TOPS before assignment to a field interviewer. Cases that have an undeliverable panel maintenance or screening instrument mailing may also go to TOPS for intensive tracing before assignment to the field if batch tracing does not provide any new information. In most instances, batch tracing will be the most cost-effective means of pursuing these cases. A tracing specialist may spend up to 1.5 hours locating a telephone number, which typically is less expensive than having a field interviewer visit the last-known address, possibly when no one is home. If TOPS is unable to locate a telephone number for the family, then the case will be assigned to the field for in-person locating.

Field interviewers will identify additional cases assigned to them for which the telephone numbers and addresses provided are no longer accurate. In these instances, interviewers will

perform some simple field locating activities if the last-known address is within 30 miles of the interviewer's home, or is near other sampled cases. These activities include talking to current residents at the last-known address and to former neighbors of the family. If no leads are developed from these efforts, or if the case is more than 30 miles from the interviewer's home and not near other sample members' homes, the case will be transferred to TOPS for centralized tracing. The decision to send a case to TOPS, and at what point, will be made by the field supervisor on a case-by-case basis. If TOPS cannot locate the family, the case will be returned to the field for more extensive field locating.

There will likely be a few difficult cases that will not be located even after additional field locating; we may send these types of cases back to TOPS for additional intensive tracing. This decision will be made on a case-by-case basis by the regional supervisor.

Because many sample members provided us with updated tracing information during the kindergarten 2006 rounds, such as contact information for friends and relatives that will always know how to reach them, we anticipate fewer locating problems in the kindergarten 2007 round of data collection. However, after we have exhausted all other tracing options, we may also utilize Choicepoint, another locating database available to RTI's TOPS Unit. Choicepoint has a slightly higher fee associated with each search but allows tracing to be initiated with fewer identifiers. This could be beneficial for cases in which leads have all been exhausted and there is limited information to base a new search on.

Respondents who have moved outside of a reasonable geographic range from our field staff can present another source of nonresponse. Standard procedures will be put in place to handle such situations. Interviewers will be instructed that if a sample family lives more than 150 miles from them, they should contact the field supervisor for further instructions. If another interviewer lives within 150 miles of the family, the case will be transferred to the closer interviewer. Otherwise, the interviewer will conduct the parent interview by telephone and will not conduct the child assessments. However, if the case produces a Wraparound Early Care and Education Provider (WECEP) and the parent gives us written consent to contact him/her, the interviewer will also pursue interviews with the selected WECEP.

The ECLS-B field supervisors are required to document and review actions taken on all pending noninterview cases, including pending refusal, tracing, and noncontact cases. This ongoing review allows supervisors to assess the viability of specific cases and to identify a tailored approach for follow-up. Through this process, field supervisors are reviewing case histories and determining if all address, phone numbers, and potential contact sources have been worked thoroughly; determining if contact attempts have been made on different days of the week and at different times of day, as appropriate; and preparing case-specific instructions on next best steps for those cases that remain viable. Before a case can be finalized as a noninterview, the RTI regional supervisor must review the documentation and approve assignment of any final noninterview disposition code. This level of review ensures all appropriate steps have been taken to work the case adequately and helps to achieve the best possible response rates.

3.3 Improving Wraparound Early Care and Education Provider Response Rates

Based on the kindergarten 2006 experience to date, we expect that approximately 25 percent of the children will not be entering kindergarten until the 2007 round, and about 5 percent will repeat kindergarten in fall 2007. If these children receive out-of-home care in the kindergarten 2007 round, interviewers will be prompted by the computer to obtain permission from the parent to contact the child care provider. The provider could be the Wrap Around Early Care and Education Provider (WECEP), or in center-based situations, the program administrator.

Two levels of permission/cooperation make up the child care provider completion rate: the permission of the parent to contact the provider and the cooperation of the provider. In the 2-year round of data collection, the parental refusal rate was the source of greater concern, with approximately 25 percent of parents refusing to allow contact with the care provider. However, the cooperation rate among those providers who were contacted was reasonably good (90 percent). Because both rates are factors in the overall response rate, our strategy in the preschool round addressed each of these components, resulting in a parent refusal rate reduction to 9 percent, and a provider cooperation rate improvement to 94 percent. We employed the same strategy in the kindergarten 2006 round.

First, the same interviewers who conducted in-home visits completed telephone interviews with child care providers, enabling them to capitalize on their intimate knowledge of the individual cases and their rapport with the families. This continuity in interviewing staff helped increase *both* the parent permission rate and the provider cooperation rate. Parents were more willing to have an interviewer with whom they had become comfortable contact their child's care provider than a remote interviewer with whom they were not familiar.

After the parent provided permission to contact the child care provider, the interviewer asked the parent to inform the care provider and, if applicable, the program administrator about the study and to also let them know that the interviewer would be trying to get in touch with them in a few days. Materials about the study were provided for the parent to give to the provider and program administrator. Using the same strategies used in the kindergarten 2006 round, we anticipate that engaging the parent in the process of gaining cooperation from the provider will increase cooperation rates. Thus, by the time the field interviewer calls the provider, the provider will have received a lead letter from RTI, a signed permission form from the parent, and possibly will have heard from the parent about the study and be expecting a call from a particular interviewer. The interviewer will be able to say that he or she conducted a home visit with the family recently, adding the personal touch that an offsite telephone interviewer would not have. Furthermore, interviewers will be more careful to collect complete and accurate contact information on care settings and providers' names from parents if they are responsible for the follow-up with the provider. This will help reduce location time and the number of cases lost as unlocatable.

As in the kindergarten 2006 round, for children entering or repeating kindergarten in the 2007 round, interviewers will be prompted to obtain permission for one additional contact, the child's kindergarten teacher.

3.4 Improving Teacher Response Rates

We expect that approximately 30 percent of the children in the kindergarten 2006 round will be attending kindergarten in 2007. One of the goals of the ECLS-B project is to evaluate school readiness and its relationship to earlier childhood experiences. The teacher can provide valuable information about how the child learns and behaves in an academic setting. There are up to three levels of permission and cooperation that make up the teacher completion rate: the permission of the parent to contact the teacher; district approval for public schools; and the cooperation of the teacher him or herself. The rate of parental consent to contact the teachers during the 2006 kindergarten round is currently at 98 percent. Approximately 23 percent of cases require district approval to mail the teacher survey in the kindergarten 2006 round. Although time consuming, we have been generally successful in gaining this approval. We do expect to encounter challenges at the teacher level.

The projected response rate for teachers is 75 percent. The kindergarten 2006 teacher response rate is currently approximately 71 percent. However, the data collection period has an additional month before all teachers have received all mailings and contacts. We have taken additional steps to ensure the highest possible response rate in the kindergarten 2006 round and will implement these steps again in the 2007 round.

To optimize response, we plan to deploy the same successful strategies applied in the kindergarten 2006 round to the kindergarten 2007 round. First, there are two separate reminder e-mails, one following the mailing of each of the first two questionnaires. Second, we may send a third questionnaire packet via an express mail delivery service as a final attempt to gain the attention of the teacher. Finally, another strategy that was originally applied to the preschool round child care provider data collection and adapted for the kindergarten 2006 round will be retained for the kindergarten 2007 teacher survey. We will include a letter signed by the parent in the teacher questionnaire packet, confirming for the teacher that the parent furnished the teacher's name and has given permission for the teacher to furnish the requested information.

4. Pilot Tests

Prior to the kindergarten 2006 national study, a small pilot test was carried out for many of the instruments to make any last-minute adjustments in procedures and item comprehension. This occurred after we had received approval from the ERB.

The child cognitive assessment, the WECEP, and teacher questionnaire will not be tested because they have not changed since the ones used for the kindergarten 2006 national data collection. The majority of the changes to the Parent interview between the kindergarten 2006 and kindergarten 2007 national data collections were deletions to reduce the size of the instrument. In-house timings of the Parent interview indicate that the length of that instrument is approximately the target time of 45 minutes, so no pilot test of this instrument will take place.

5. Personnel Involved in the Kindergarten Sample Design and Data Collection

Table B-2 lists the personnel involved in the ECLS-B kindergarten sample design and data collection who may be contacted for additional information.

Table B-2. Personnel involved in the ECLS-B Kindergarten 2007 sample design and data collection

Name	Title	Telephone
Susan Kinsey, B.S.	Program Director, RTI	919-485-7726
Jean Lennon, Ph.D.	Project Manager, RTI	919-485-2654
Kyle Snow, Ph.D.	Principal Investigator, RTI	919-541-6767
Karen Morgan, Ph.D.	Teacher Data Collection Task Leader, RTI	919-485-7779
Ilona Johnson, B.A.	Home Visit Data Collection Task Leader, RTI	919-485-5731
Sara Wheeless, Ph.D.	Senior Statistician, RTI	919-541-5891
Donald Rock, Ph.D.	Consultant	609-896-2659
Judy Pollack, M.S.	Educational Testing Service	609-734-1507
Michelle Najarian, B.S.	Educational Testing Service	609-734-5659
Jennifer Park, Ph.D.	Project Officer, NCES	202-219-7002

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