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.[1]

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

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[1] 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 ineligibles 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 $Y = (Y_1,\ldots,Y_p)'$ denotes a p-dimensional vector of population parameters, $\hat{Y} = (\hat{Y}_1,\ldots,\hat{Y}_p)'$ 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

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

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 completes 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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