
NATIONAL CENTER FOR EDUCATION STATISTICS

User's Manual

September 1994

NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988

SECOND FOLLOW-UP: STUDENT COMPONENT
DATA FILE USER'S MANUAL

U.S. Department of Education
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"The purpose of the Center shall be to collect, and analyze, and disseminate statistics and other data related to education in the United States and in other nations."--Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

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Foreword

This manual has been produced to familiarize data users with the procedures followed for data collection and processing of the second follow-up student component of the National Education Longitudinal Study of 1988 (NELS:88). A corollary objective is to provide the necessary documentation for use of the data file.

Use of the data set does not require the analyst to be a sophisticated statistician or computer programmer. Most social scientists and policy analysts should find the data set organized and equipped in a manner that facilitates straightforward production of statistical summaries and analyses. This manual provides extensive documentation of the content of the data file and how to use it. **Chapter VII and Appendix I, in particular, contain essential information that allows the user to immediately proceed with minimal startup cost. A careful reading of Chapter VII and Appendix I will help users to avoid common mistakes that result in costly computer job failures or incorrect results.**

The rest of the manual provides a wide range of information on the design and conduct of the National Education Longitudinal Study of 1988 (NELS:88). Chapter I begins with an overview and history of NCES's National Education Longitudinal Studies program and the various studies that it comprises. Chapter II contains a general description of the data collection instruments used in the NELS:88 second follow-up.

The sample design and weighting procedures used in the second follow-up study are documented in Chapter III, as well as standard errors and design effects, non-sampling measurement errors, and problematic variables.

Data collection procedures, schedules, and results are presented in Chapter IV. Chapter V describes data control and preparation activities such as monitoring receipt of questionnaires, editing, and data retrieval. Chapter VI describes data processing activities including machine editing and construction of the cleaned data tape. Finally, Chapter VII describes the organization and contents of the data file and provides important suggestions for using it.

The appendices contain a list of other NCES NELS:88 publications; guidelines for Statistical Analysis System (SAS) users; the second follow-up student questionnaire; the record layout for the student questionnaire; specifications for the composite variables; the content areas of the second follow-up components; a glossary of project terms; a discussion of conducting cross-cohort trend analyses of students; and a codebook for the student questionnaire data.

In addition to the study described in this manual, a number of supplemental NELS:88 components are also described in Appendix A.

Earlier NCES longitudinal studies that may be of interest to NELS:88 users are described in Appendix B including the following: the High School and Beyond (HS&B) base year files; merged HS&B first, second, third, and fourth follow-up files; related HS&B files; and assorted files related to the National Longitudinal Study of the High School Class of 1972 (NLS-72).

A Note on Data Use and Confidentiality

The NELS:88 second follow-up data files are released in accordance with the provisions of the General Education Provisions Act (GEPA) [20-USC 122e 1] and the Carl D. Perkins Vocational Education Act. The GEPA assures privacy by ensuring that respondents will never be individually identified.

The National Center for Education Statistics (NCES) is responsible under the Privacy Act and Public Law 100-297 for protecting the confidentiality of individually identifiable respondents, and is releasing this data set to be used for statistical purposes only. Record matching or deductive disclosure by any user is prohibited.

To ensure that the confidentiality provisions contained in PL 100-297 and the Privacy Act have been fully implemented, procedures commonly applied for disclosure avoidance in other Government-sponsored surveys were used in preparing the data file associated with this manual. These include suppressing, abridging, and recoding identifiable variables. Every effort has been made to provide the maximum research information that is consistent with reasonable confidentiality protection. Deleted, abridged, and/or recoded variables appear with an explanatory footnote in the codebook attached to each user's manual.

Acknowledgements

A study such as this is built first and foremost upon the students, dropouts, teachers, school administrators, and parents who have so generously provided its basic data. We are grateful for their cooperation. We also thank the considerable numbers of school personnel who have assisted in the implementation of NELS:88.

We wish to acknowledge the role of a number of other individuals in the realization of the aims of this study. Donald Rock and Judith Pollack of Educational Testing Service served as task leaders for cognitive test development. Miriam Clarke provided counsel on management issues in the main study. Leslie Scott contributed significantly to the conceptualization and development of file specifications and composite variables for the components of the study.

We are also grateful to the members of NCES staff in the Longitudinal and Household Studies Branch who worked closely with us on this project. Jeffrey Owings, chief of the Longitudinal and Household Studies Branch; Peggy Quinn, project officer for the second follow-up; as well as other branch staff--Ralph Lee, Shi-Chang Wu, and Jerry West--who contributed to various aspects of this study. Bob Burton of the Statistical Standards and Methodology Division supplied statistical advice and review.

Three individuals in other agencies have worked particularly hard and effectively to help realize and extend the potential of NELS:88. Larry Suter of the National Science Foundation, Dick Berry (formerly of the National Science Foundation), and Carmen Simich-Dudgeon (formerly of the Office of Bilingual Education and Minority Languages Affairs (OBEMLA) of the U.S. Department of Education). We are grateful for their efforts.

In addition, we would like to express our appreciation to the members of what began in the base year as our National Advisory Panel, and became in 1989 the NELS:88 Technical Review Panel. The panelists--Jerald G. Bachman, Gordon Ensign, Lyle V. Jones, Nancy Karweit, Richard J. Murnane, Patricia Shell, Marshall S. Smith, and John Stiglmeier--provided wise counsel on many difficult issues of design, instrumentation and implementation. As consultants to the second follow-up, Aaron Pallas, Joan Talbert, Leigh Burstein, Anthony Bryk, and Senta Raizen also contributed importantly to the design and ultimate success of the study.

Steven J. Ingels was overall NELS:88 second follow-up project director. Lisa Thalji was associate project director responsible for securing school cooperation and locating NELS:88 cohort members. Katy Dowd was associate project director responsible for the student component during data collection. Laura Reed and Virginia Bartot were the data processing managers, and Martin R. Frankel was the task leader for sampling and statistics.

The authors also wish to acknowledge those who contributed to the production of this manual. Kenneth A. Rasinski performed the confidentiality disclosure analysis for the NELS:88 Second Follow-Up. Additionally, Doug Barge, Michael Ma, Gloria Rauens, Supriti Sehra, Shio-Ling Tsai-Ma, and Hsiuling Young provided a great deal of their time and expertise to produce the statistics reported throughout the manual. Our appreciation is also extended to Karen Sutherlin and Cynthia Mathews for their patience and thoroughness in the production of the manuscript. Finally, we would like to thank the National Opinion Research Center field and telephone center interviewers and supervisors who with such energy and determination collected the NELS:88 data.

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Appendices

Appendix A: NELS:88 Sources of Contextual Data: Parent, Teacher, School Administrator, Transcript, and Course Offerings Components

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IV. Data Collection

This chapter describes the data collection procedures for student and dropout surveys in the NELS:88 base year, first follow-up, and second follow-up. Data collection procedures for all sources of contextual data (e.g., parent, teacher, and school administrator) from all three study waves are briefly summarized in Appendix A of this manual and are detailed in the respective user's manuals for these components.

4.1. Base Year Data Collection

The base year survey collected data from students, parents, teachers, and school administrators. Pre-data collection activities included securing endorsements from educational organizations as well as securing cooperation from state education agencies, school districts, and individual schools. Self-administered questionnaires and cognitive tests were the principal mode of data collection. Data collection primarily took place during in-school survey sessions conducted by an NORC field interviewer. The number of completed instruments and completion rates based on sample eligibility for the students are summarized in Table 4.1-1.

Table 4.1-1
Summary of NELS:88 base year completion rates

| Instrument | Completed | Weighted | Unweighted |
|-----------------------------|-----------|---------------------|---------------------|
| Student questionnaires | 24,599 | 93.41% | 93.05% |
| Student tests | 23,701 | 96.53% ^a | 96.35% ^a |
| Parent questionnaires | 22,651 | 93.70% | 92.08% |
| Teacher ratings of students | 23,188 | 95.91% ^b | 94.26% ^b |
| School admin. questionnaire | 1,035 | 98.92% | 98.38% |

^a Percentages of cases for which a student questionnaire was obtained for which a cognitive test was also obtained.

^b Percentage of student respondents for whom at least one teacher rating was completed.

4.1.1 Base Year Pre-Data Collection Activities

Before the data collection effort could begin, it was first necessary to secure from the administrator of each sampled school a commitment to participate in the study. Several levels of cooperation were sought before school administrators were approached.

For public schools, the first level involved seeking approval for the project from the Education Information Advisory Council (EIAC) of the Council for Chief State School Officers. The second level involved contacting the Chief State School Officer (usually the state Superintendent of Schools) of each state to explain the objectives of the study, the data collection procedures, and the protection of individual and institutional confidentiality. Once approval was obtained at the state level, contact was made with district superintendents and, upon receipt of district approval, contact was made with the school principals.

For private schools, the National Catholic Educational Association (NCEA) and the National Association of Independent Schools (NAIS) were contacted in order to inform them of the study and to solicit their endorsements. After this step, private school principals were directly contacted.

Within each cooperating school, principals were asked to designate a school coordinator who would serve as a liaison between NORC staff and selected respondents--the school administrator, students, teachers, and parents. The school coordinator was often a guidance counselor or senior teacher, although in some cases was the principal or assistant principal. The school coordinator handled all requests for data and materials as well as all logistical arrangements for data collection on the school premises. Included among these responsibilities was annotating the list of sampled students to identify students whose physical or learning disabilities or linguistic deficiencies would preclude participation in the survey. Coordinators were asked to classify all eligible students as Hispanic, Asian-Pacific Islander, or "other," and to distribute parental permission forms to sampled students.

4.1.2 Base Year Cohort Data Collection Activities

Student questionnaires and tests were administered in group sessions to an average of twenty-three students in each of the schools in the core and state augmentation samples. Telephone interviews were conducted for a small number of students who were unable to participate in the group-administered sessions.

Base year student data were collected from students in the core and state augmentation sample schools between February and June 1988.¹ Within each school, selected eighth graders were gathered for an in-school data collection session. Survey administration was usually conducted in a school classroom or library and consisted of several steps. Students first completed the student questionnaire, followed by an 85 minute battery of cognitive tests. The tests consisted of four timed sections

¹ Student sample selection procedures are discussed in the *NELS:88 Base Year Sample Design Report*. Spencer, Frankel, Ingels, Rasinski, and Tourangeau, NCES 1990.

devoted to mathematics, reading, science, and social studies (history/government). Once the test battery was completed, an attempt was made to retrieve missing (or inappropriately marked) questionnaire items before the student left the classroom.² At the end of the session, arrangements were made to conduct make-up sessions for students who were scheduled but unable to attend the initial survey session.

4.1.3 Base Year Data Collection Results

For a detailed discussion of base year data collection results, consult section 4.4 of the Base Year: Student Component Data File User's Manual.

4.2 First Follow-Up Data Collection

The first follow-up survey collected a second wave of questionnaire and cognitive test data from the eighth-grade cohort of 1988, the majority of whom were enrolled in the tenth grade at the time of data collection. In addition, a first wave of data was collected from freshened students, and a first wave of dropout information was collected from those students who dropped out of school since the base year.

Contextual data were also collected. A questionnaire was administered to two teachers for each sampled student, as well as a separate questionnaire to the school administrator of each sampled school. Self-administered questionnaires remained the principal mode of data collection for all respondent populations.

Although the data collection procedures employed in the first follow-up were modeled after those of the base year, the design of the study necessitated four activities that had not been performed previously. First, in order to select the now dispersed first follow-up sample, an extensive locating effort was undertaken. Second, the base year sample was freshened to generate a representative sample of the tenth-grade class of 1990. Third, off-campus survey sessions, similar to those used in High School and Beyond, were scheduled to administer the student or dropout questionnaire to sample members who were not enrolled in a first follow-up school at the time of data collection. And fourth, to obtain a more precise estimate of the rate of dropping out for the eighth-grade cohort of 1988, a subsample of first follow-up nonrespondents and base year ineligible students was further pursued.

² At data collection sessions, interviewers reviewed the questionnaires to ensure that all critical items were completed. An oval indicating "no retrieval" was marked whenever the missing data could not be retrieved due to respondent refusal or inability to clarify a vague response.

The first follow-up survey was executed in four phases which spanned two years. Pre-data collection took place during phases 1 and 2, while data collection took place during phases 3 and 4 as follows:

Phase 1. Conducted from January to June of 1989, Phase 1 of the first follow-up survey encompassed the pre-data collection activities of tracing sample members to their 1990 school of attendance and securing state, district, and school permission to conduct the study.

Phase 2. From September to December 1989, all first follow-up schools were contacted again in the fall of 1989, primarily to re-verify student enrollment, freshen the core and state augmentation student samples, and schedule in-school data collection sessions.

Phase 3. Phase 3 comprised the main data collection period, from January through July 1990. Sample members completed either a student or dropout questionnaire, as well as a cognitive test battery. Data collection took place at either an in-school or off-campus group survey session.

Phase 4. After the main data collection period in phase 3, a second data collection effort was undertaken from January through June 1991. An attempt was made to administer a questionnaire to the population of sample members who missed data collection at the school or who were no longer enrolled in their phase 3 school and remained temporarily unlocatable.

The number of completed instruments and completion rates based on sample eligibility for the sample members are summarized in Table 4.2-1. While the first follow-up activities are summarized below, further information can be found in both the *First Follow-Up: Student Component Data File User's Manual* and the *First Follow-Up: Dropout Component Data File User's Manual*.

4.2.1 First Follow-Up Pre-Data Collection Activities

Phase 1. Conducted from January to June of 1989, Phase 1 of the first follow-up survey encompassed the pre-data collection activities of tracing sample members to their 1990 school of attendance and securing state, district, and school permission to conduct the study.

Since 84.3 percent of the base year sample changed schools between eighth and tenth grades, an extensive student tracing effort was undertaken. This served two purposes. First, tracing provided the necessary information to locate and define the first follow-up student sample and its associated schools. As described in Chapter III, selection of the student and school sample was based on sample member clustering. The objective was to select

Table 4.2-1
Summary of NELS:88 first follow-up completion rates^a

| Instrument | Completed | Weighted | Unweighted |
|--|------------------|---------------------|---------------------|
| Student questionnaires | 18,221 | 91.09% | 94.10% |
| Student tests | 17,352 | 94.14% ^b | 95.23% ^b |
| Dropout questionnaires | 1,043 | 90.97% | 89.84% |
| Dropout tests | 522 | 48.56% ^b | 50.05% ^b |
| School admin. questionnaire | 1,291 | NA | 97.07% |
| School admin. questionnaire ^c | 17,663 | 91.97% | 96.94% |
| Teacher questionnaire ^d | 15,908 | 80.51% | 87.31% |

^a This table is based on the original (1992-1993) release of the first follow-up student file. The second follow-up (1994) release of the first follow-up student data contains a slightly different sample number than the original release. Additional details about the sample numbers of the two releases are in section 3.1.2 of this manual.

^b Percentage of cases for which a student/dropout questionnaire was obtained for which a cognitive test was also obtained.

^c Coverage rate for student participants of the total sample who also have a completed school administrator questionnaire.

^d Percentage of student participants for whom at least one teacher rating was completed.

approximately 21,500 base year sample members while restricting the number of schools in the sample to roughly 1,500. Second, tracing provided a starting point for measuring the fluid process of dropping in and out of school.

In order to draw the first follow-up sample it was necessary to definitively identify sample member clustering within the 3,362 schools to which base year sample members reported they would matriculate. This was accomplished through sample members' base-year projected 1989-1990 school of attendance, and involved contacting schools directly to verify sample members' enrollment. After 18 weeks of tracing, 99 percent ($N=26,211$) of the base year sample ($N=26,432$) had been located.

In addition to the student tracing activity, the process of contacting the schools also took place in phase one. A high degree of school-level cooperation was achieved in the first follow-up survey. The final first follow-up core sample was enrolled in 1,109 public and 249 Catholic or other private schools which fell under the jurisdiction of 885 districts and dioceses. Of the 885 districts and dioceses contacted, 99.2 percent ($N=878$) agreed to participate in the study. School contacting proved equally successful with 99.2 percent ($N=1,347$) of the 1,358 eligible first follow-up schools granting permission for the first follow-up to be

conducted in their school.

Phase 2. After tracing was completed and the first follow-up student sample was finalized, all first follow-up schools were contacted again in the fall of 1989 to re-verify student enrollment, freshen the core and state augmentation student samples, schedule in-school data collection sessions, and for small cluster size schools (i.e., schools with fewer than 11 sample members), secure permission to participate in the study. Phase 2 was conducted from September 4 to December 15, 1989.

4.2.2 First Follow-Up Cohort Data Collection Activities

Following phase 1 and 2 activities of tracing and securing cooperation, first follow-up data collection for the cohort took place during phases 3 and 4.

Phase 3. Student questionnaires and cognitive tests were administered to sample members who were currently enrolled in school, including stopouts.³ Data collection took place at either an in-school or off-campus group survey session.

In-School Survey Sessions. From January to June 1990, in-school survey sessions were held in all selected schools where first follow-up sample members were enrolled. Survey instruments were administered in group sessions to an average of 13 students in each participating NELS:88 school. In-school survey procedures paralleled those used in the base year. One additional instrument, the new student supplement, was administered to base year nonrespondents and freshened students to collect basic demographic information previously collected from all base year participants.

Off-Campus Survey Sessions. Off-campus survey sessions, typically attended by one to three students, were conducted from April to July 1990. Students who transferred to new schools, who had missed in-school survey sessions, or who were enrolled in schools that had refused to participate in the study were invited to off-campus sessions and administered the student questionnaire and cognitive tests. Dropouts were also asked to attend these sessions. If a sample member was unable to attend an off-campus group survey session, he or she was surveyed either in person or over the telephone. While off-campus survey sessions were held for

³ Barro and Kolstad (1987) define "stopouts" as "temporary dropouts"--that is, students who left school temporarily and then returned. In the NELS:88 first follow-up, a stopout was defined as a sample member who had dropped out of school between data collection in 1988 and 1990, but who had returned to school by the time an interviewer contacted the sample member to be surveyed. A similar definition was employed in the NELS:88 second follow-up.

students who transferred out of their NELS:88 school after sampling took place, the corresponding teacher and school administrator data were not collected for these students. Therefore, students in this situation do not have complete contextual data in the first follow-up.

Phase 4. In order to derive a more precise dropout rate for the 1988 eighth-grade cohort, a second data collection effort was undertaken in the spring of 1991. Between January and June 1991, an attempt was made to administer a questionnaire to the population of sample members who missed data collection at the school or who were no longer enrolled in their phase 3 school and remained temporarily unlocatable. This population was subsampled and, depending on school enrollment status, completed either an abbreviated student or dropout questionnaire over the telephone or in person.

During this time, sample members previously identified as dropouts who had not been surveyed by the close of the main data collection period were pursued. These sample members were administered an abbreviated dropout questionnaire; however, if a sample member was previously identified as a dropout but had returned to school by the time of data collection, he or she completed an abbreviated student questionnaire. All questionnaires were administered over the telephone or in person. During phase 4 data collection, cognitive tests were not collected.

Full and Abbreviated Questionnaire. Of the sample members who completed a questionnaire, 99.8 percent of student respondents and 75.4 percent of dropout respondents completed a full or slightly modified version of the questionnaire during the initial data collection period in phase 3. Respondents who received the full version of the student or dropout questionnaire were also administered a cognitive test battery. The remaining 0.2 percent of student respondents and 24.6 percent of dropout respondents completed an abbreviated student or dropout questionnaire during phase 4, and were not administered the cognitive test battery. Given the nature of the abbreviated questionnaires, toward the end of the second data collection effort, interviewers were allowed to interview proxies. Of the 34 students surveyed during phase 4, eight interviews were conducted with a proxy. Of the 256 dropouts interviewed during phase 4, a total of 63 interviews were conducted with a proxy.

4.2.3 First Follow-Up Dropout Survey

During all four phases of the first follow-up, the enrollment status of the sample members was carefully monitored. If a student was found to have dropped out of school before data collection, the dropout was administered a dropout questionnaire rather than a student questionnaire.

Definition of a Dropout. For the purposes of the first

follow-up data collection, the following definitions were used to identify students who dropped out of school:

1. an individual who, **during the spring of 1990**, according to the school (if the sample member could not be located), or according to the school and home, was not attending school or, more precisely, had not been in school for four consecutive weeks or more and was not absent due to accident or illness, or
2. a student who, **during the spring of 1990**, had been in school less than two weeks after a period in which he or she had missed school for four or more consecutive weeks not due to accident or illness.

Because contact was made with the schools during each of the four phases during the first follow-up, the enrollment status of each student was collected at four separate time periods. If at any point in phases 1 - 4 a student met the above criteria, the student was considered a dropout.

Some students who were initially identified as dropouts later re-enrolled in their school before data collection took place in phase 3. A student in this situation was no longer considered a dropout, but instead was classified as a stopout. Stopouts are defined as a student who had a dropout episode between spring term 1988 and spring term 1990, but who were back in school in the spring term of 1990. At the data collection level, stopouts who were identified in phase 1 or phase 2 as a dropout, but who, in phase 3, had been attending school for two weeks or more were administered the first follow-up student questionnaire and cognitive test battery. Stopouts who had been attending school for less than 2 weeks were administered the dropout questionnaire.

When a school official identified a sample member as a dropout, interviewers were instructed to contact the household to confirm the status of the sample member. If either the sample member or an adult household member indicated that the dropout definition above was applicable, the sample member was classified as a dropout. This policy of confirming status through the household was applied during all four points of enrollment status verification.⁴

Furthermore, whenever a sample member was identified as a

⁴ For those cases where the school identified a sample member as a dropout but the sample member or a household member identified the sample member as a student, information about the student's new school of enrollment was collected. The new school was then contacted to verify that the student was in fact enrolled at that school.

dropout, the sample member was flagged as such and the date he or she dropped out of school was recorded. If during subsequent enrollment verification contacts the sample member had returned to school, the date he or she returned was recorded. Once a sample member was flagged as a dropout, regardless of whether or not he or she returned to school, the flag was maintained.

Data Collection. Data collection for the dropout survey was executed during phase 3 from January to July 1990, and phase 4 from January to June 1991. Under the initial data collection period in phase 3, interviewers administered the dropout questionnaire and cognitive tests to cohort dropouts during off-campus group administration sessions.

During phase 4, a second data collection effort took place. In an attempt to obtain a more precise estimate of the cohort dropout rate for the eighth-grade class of 1988, enrollment status information was gathered for nonrespondents, previously identified dropouts (sample members who were identified as dropouts by school officials but not home-confirmed), and base year ineligible students.

Overall, 89.8 percent of dropouts (91.0% weighted) and 94.1 percent of students (91.1% weighted) were surveyed in the first follow-up.

4.2.4 First Follow-Up Survey of Base Year Ineligible Students

The Base Year Ineligibles (BYI) Study of the NELS:88 first follow-up was a followback of students who had been excluded because of linguistic, mental, or physical obstacles to participation when the baseline sample of eighth graders was drawn in the 1987-88 school year. The BYI study had several purposes, the primary foci of which were to correct for potential sample undercoverage; to accommodate the group of 1988-ineligible sample members who were 1990-eligible sophomores, and hence must be added to the 1990 survey to ensure its cross-sectional representativeness; and to provide a basis for a corrected cohort dropout estimate taking account of both 1988-eligible and 1988-ineligible eighth graders two years later.

Two kinds of information were sought from the sample of excluded students. First, it was to be determined if their eligibility status had changed. If so, these students were to be reclassified, and added to the longitudinal sample. They would then be administered, as appropriate, a student or dropout questionnaire. Second, for those who remained ineligible, their school enrollment status was to be ascertained, and basic information about their sociodemographic characteristics recorded. For eligibility and completion rate data, see Table 4.2.4-1.

Table 4.2.4-1: Base year ineligibility and completion rate data in the first follow-up (N = 618)

| Status of BYI Sample Member | Status | | Located | | Eligible | | Completed Question- naire | |
|--------------------------------|--------|---------------------|---------|--------|----------|----------------|---------------------------------|----------------|
| | N | % of total | N | % | N | % ^a | N | % ^b |
| Student | 464 | 75.1% | 464 | 100.0% | 277 | 59.7% | 258 | 93.1% |
| Dropout | 88 | 14.2% | 88 | 100.0% | 35 | 39.8% | 32 | 91.4% |
| Out-of-Scope | 28 | 4.5% | 28 | 100.0% | N/A | N/A | N/A | N/A |
| Not Screened | 38 | 6.1% | 0 | 0.0% | N/A | N/A | N/A | N/A |
| Total BYI Sample Members | 618 | 100.0% ^c | 580 | 93.9% | 312 | 53.8% | 290 | 92.9% |

^aPercentage based on total located cases.

^bPercentage based on total eligible cases.

^cDue to rounding, percentage actually sums to 99.9%.

Note: Of the original 674 Base Year Ineligible cases, 48 BYI cases were found to be sampling errors in the first follow-up, and 8 were found to be sampling errors in the second follow-up.

4.2.5 First Follow-Up 1990 and 1988-90 Panel Data Collection Results

For a detailed discussion of the first follow-up data collection results, including the 1989-1990 panel results, consult the First Follow-Up: Student Component Data File User's Manual.

4.3 Second Follow-Up Data Collection

The second follow-up survey collected a third wave of questionnaire and cognitive test data from the eighth-grade cohort of 1988, the majority of whom were high school seniors at the time of data collection. In addition, dropout data were collected, as well as data from students freshened in the first and second follow-ups.

As in the base year and first follow-up, contextual data were again collected, although with some modification. Rather than collecting two teacher questionnaires for each student, the second follow-up collected up to one teacher report per student. Additionally, teachers were selected only in the areas of mathematics and science; unlike the two prior waves, English and Social Studies teachers were not surveyed in the 1992 round. The following contextual data were also collected: school transcript data for each sample member; a questionnaire from one parent of each student and dropout; and a questionnaire from the school administrator of each sampled school.⁵ Self-administered questionnaires remained the principal mode of data collection for all respondent populations.

Data collection methods adhered closely to those used in the base year and first follow-up surveys. The design of the second follow-up survey closely resembled that of the first follow-up, including extensive tracing efforts, sample freshening to generate a representative sample of the senior class of 1992, use of both in-school and off-campus survey sessions, and a survey of previously excluded students.

The second follow-up survey was executed in three phases which spanned two years. Pre-data collection activities took place during phases 1 and 2, while data collection took place during phase 3. Figure 4-1 summarizes the activities conducted during the three phases of the second follow-up.

⁵ While a questionnaire was sought from one parent of each dropout and student, approximately 1,500 parents of second follow-up respondents were subsampled out late in the parent component data collection effort. Parents of dropouts were retained with certainty. Further information can be obtained in the NELS:88 Second Follow-Up: Parent Component Data File User's Manual.

Figure 4-1: Second follow-up data collection phase diagram

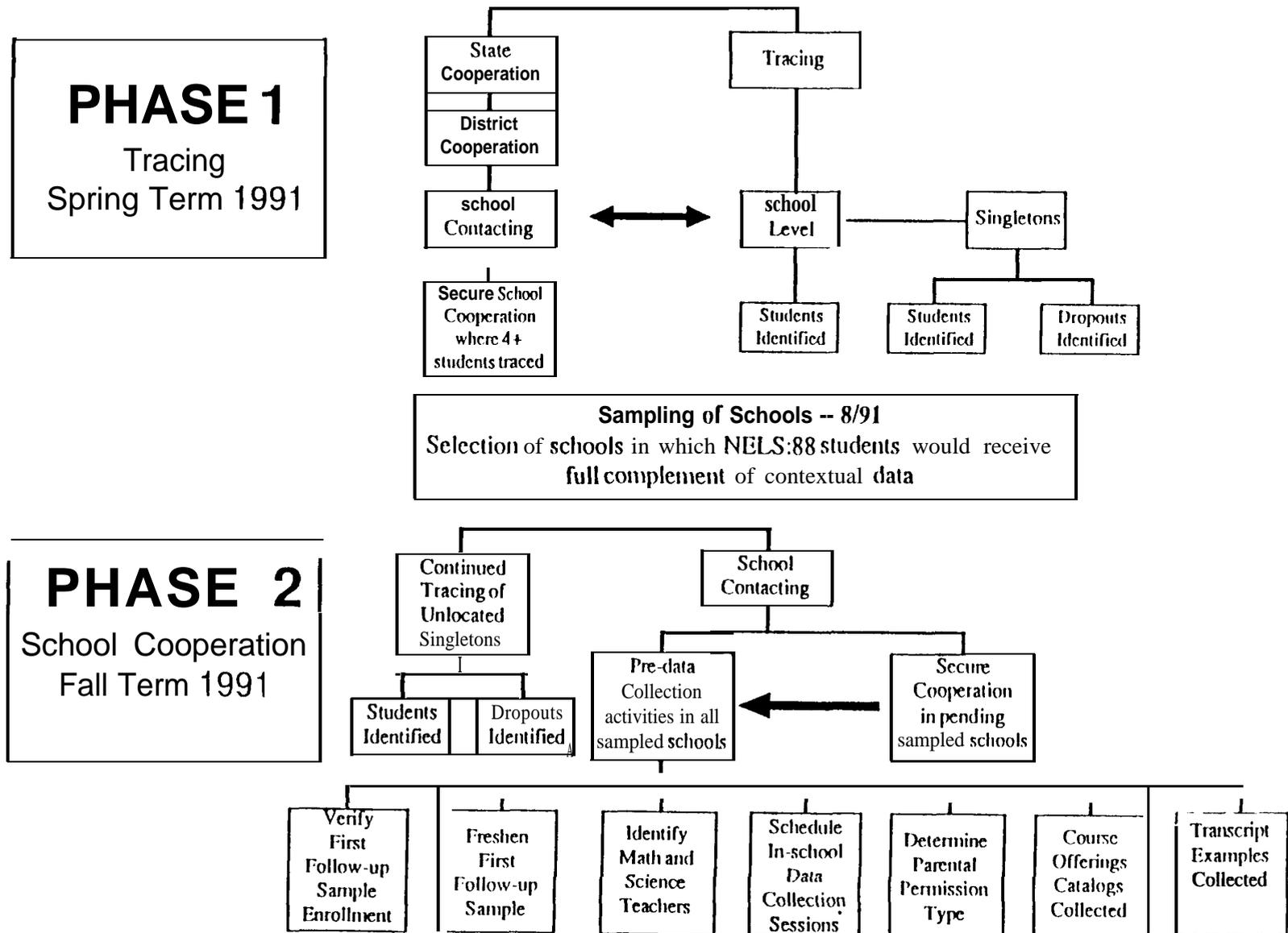
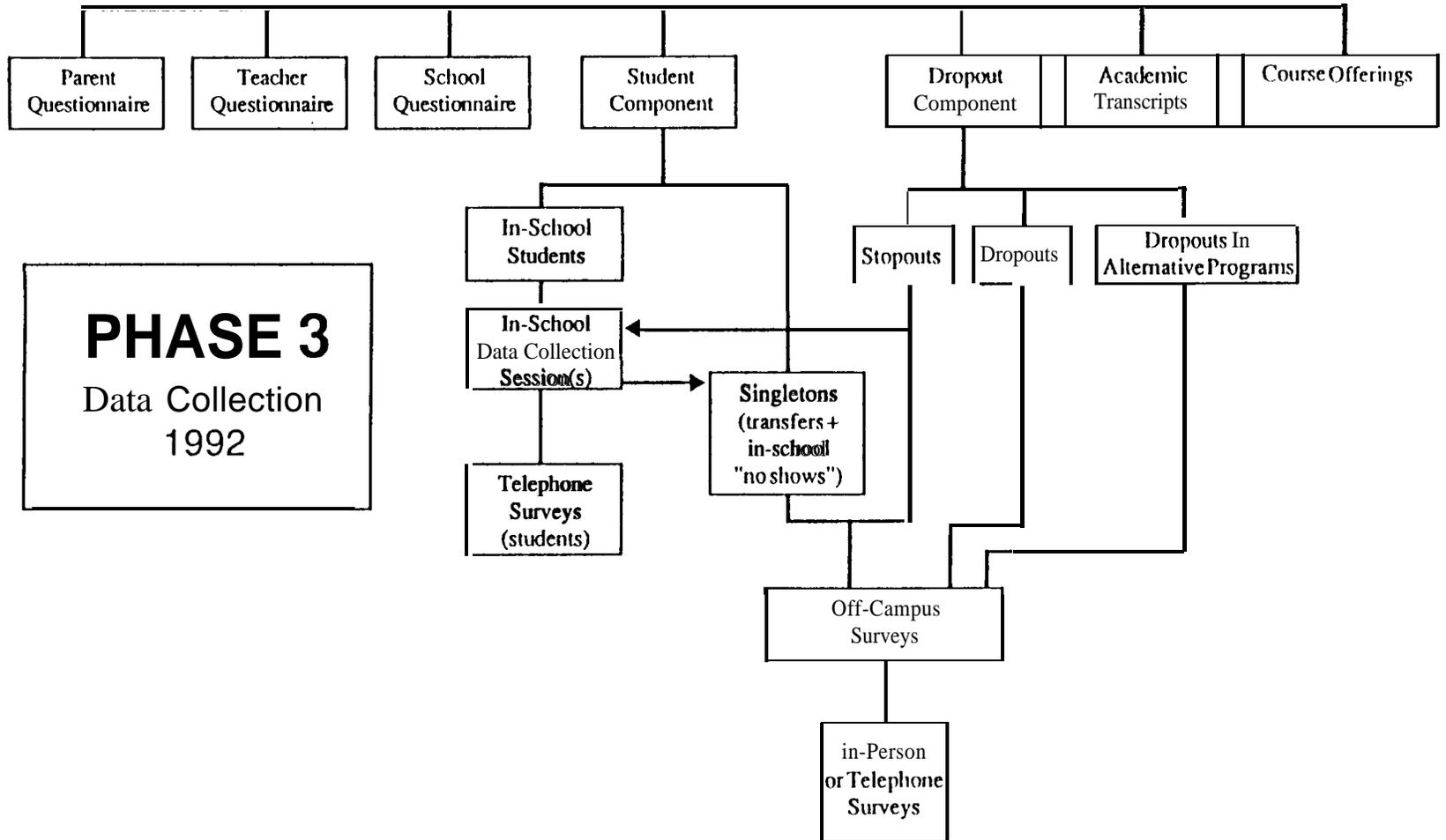


Figure 4-1(cont.): Second follow-up data collection phase diagram



Phase 1. Conducted from January to June of 1991, Phase 1 of the second follow-up survey encompassed the pre-data collection activities of tracing sample members to their school of attendance and securing state, district, and school permission to conduct the study.

Phase 2. From September to December 1991, all second follow-up schools were contacted again in the fall of 1991, primarily to re-verify student enrollment, freshen the core and state augmentation student samples, and schedule in-school data collection sessions.

Phase 3. Phase 3 comprised the main data collection period, from January through June 1992 (although a small number of cases were collected through October 1992). Sample members completed either a student or dropout questionnaire, as well as a cognitive test battery. Data collection took place at either an in-school or off-campus group survey session.

The number of completed instruments and completion rates based on sample eligibility for sample members are summarized in Table 4.3-1. While the student and dropout follow-up activities are summarized below, further information on the dropout component can be found in the *Second Follow-Up: Dropout Component Data File User's Manual*.

4.3.1 Second Follow-Up Pre-Data Collection Activities

Phase 1. Conducted from January through June of 1991, phase 1 included securing state, district, and school-level cooperation for the study as well as tracing sample members. State cooperation with NEL88 was secured for all fifty states and the District of Columbia. District and school-level cooperation were secured for first follow-up schools with four or more sample members still in attendance in the spring of 1991.

Tracing sample members served two purposes: to locate sample members for data collection purposes, and to define the schools to be included in the second follow-up sampling process. As in the first follow-up, interviewers determined the enrollment status of sample members by tracing the sample members to their first follow-up or new school of attendance. If an interviewer was unable to confirm school enrollment for a cohort member through the first follow-up school or a new school, the interviewer traced the sample member to a home address to confirm that the student was enrolled in a school or that the student had left school. Confirmation of a sample member's enrollment status determined which type of questionnaire--student or dropout--the sample member would be administered during the data collection period.

The second purpose of tracing was to determine the school sample. The second follow-up study was designed such that only

Table 4.3-1
Summary of NELS:88 second follow-up completion rates

| Instrument | Completed | Weighted | Unweighted |
|------------------------------------|------------------|--------------------|--------------------|
| Student questionnaires | 16,842 | 91.0% | 92.5% |
| Student tests | 13,267 | 76.6% ^a | 78.8% ^a |
| Dropout questionnaires | 2,378 | 88.0% | 87.6% |
| Dropout tests | 959 | 41.7% ^a | 40.3% ^a |
| School questionnaire ^b | 1,326 | NA | 97.1% |
| School questionnaire ^c | 15,409 | 98.3% | 98.2% |
| Parent questionnaire ^d | 16,395 | 90.6% | 93.2% |
| Teacher questionnaire ^e | 9,853 | 90.8% | 90.7% |

- ^a Percentage of cases for which a student/dropout questionnaire was obtained for which a cognitive test was also obtained.
- ^b 12th-grade school completion rate for school questionnaires of eligible contextual schools where at least one student has completed a questionnaire.
- ^c Coverage rate for student participants of the total sample who also have a completed school administrator questionnaire.
- ^d Parent completion rate is based only on those sample members who completed a student/dropout questionnaire.
- ^e Percentage of student respondents for whom a teacher rating was completed.

students attending a school included in the second follow-up school sample would receive the full complement of contextual data including school administrator, parent, and teacher reports. (For sample members outside of the sampled schools, only the parent data was collected of the contextual components.) To maximize the number of students to receive the full complement of contextual data, student tracing determined the number of sampled students at each school. The school sample was then drawn so that the greatest number of students would be included in the school sample and receive the full complement of contextual data.

Phase 2. During phase 2, pre-data collection activities occurred for all components of the study, and some phase 1 activities continued. District and school-level cooperation were gained for any schools selected for the second follow-up sample for which cooperation was not gained in phase 1. Tracing continued for sample members who were not located during phase 1, and enrollment was verified again for students who were traced to a school which was selected for the second follow-up school sample. Students attending a school not included in the second follow-up school sample and sample members who had left school were also traced again to their school of attendance or to a home address. Table 4.3.1-1 summarizes the results of district and school contacting and student tracing in phases 1 and 2.

Table 4.3.1-1
Summary of NELLS:88 second follow-up district/diocese
and school contacting

| | Eligible Sample | Agreed to Participate | Cooperation Rate |
|----------------------------|----------------------------|----------------------------------|-----------------------------|
| <u>District/Diocese</u> | | | |
| <u>Contacting:</u> | | | |
| Public | 862 | 853 | 99.0% |
| Catholic/ Other Private | 52 | 52 | 100.0% |
| Total | 914 | 905 | 99.0% |
| <u>School Contacting:</u> | | | |
| Public | 1155 | 1145 | 99.1% |
| Catholic/ Other Private | 232 | 228 | 98.3% |
| Total | 1387 | 1373 | 99.0% |

^a This column represents the portion of the phase 1 sampled schools (N=1,500) that had at least one core sample member still enrolled at the end of the school contacting phase (phase 2) of the study. These numbers reflect the schools at which cooperation with the study was gained rather than the final subset of NELLS:88 schools whose students were included in the contextual sample.

Interviewers visited each of the second follow-up schools to conduct activities in preparation for data collection for all components of the study. For student data collection, they scheduled in-school data collection sessions and worked with school personnel to identify how parental permission for surveying students would be gained for an individual school. Using school rosters, interviewers freshened the student sample to allow a random sample of twelfth graders who were previously excluded from the study because, for example, they were not in the U.S. or in the eighth grade in 1988, and did not have a chance to be selected for the base year sampling frame. Refer to Chapter III of this manual for a complete discussion of freshening the student sample.

In preparation for data collection of the contextual components (the parent, teacher, school administrator, and academic transcript), interviewers collected parent address and telephone information for the parent survey. To identify the sample for the teacher survey, interviewers compiled the names of mathematics and science teachers of the student sample members. Course catalogs were collected, and interviewers collected samples of student transcripts to inform data collection and data preparation for the high school transcript component.

Final Tracing Results. Of the 21,188 second follow-up sample

members, 97.3 percent (N=20,623) of the sample members were located. Figure 4-2 illustrates the results of the second follow-up locating efforts. Of the 21,188 sample members, 83.3 percent were enrolled in high school, 8.2 percent were verified dropouts, 0.5 percent were identified by school officials as dropouts but were not confirmed as such, 4.1 percent were sample members who had already completed an alternative program, 1.3 percent were deemed ineligible to participate in the second follow-up study (e.g., deceased or moved out of the country), and 2.7 percent could not be located. (Due to rounding, the above percentages sum to 100.1 percent).

4.3.2 Second Follow-Up Cohort Data Collection Activities

Phase 3. Second follow-up data collection followed phase 1 and 2 activities of tracing and securing cooperation, from January through October 1992. Data collection activities in the second follow-up closely paralleled those in the first follow-up survey. Student questionnaires and cognitive tests were administered to sample members who were currently enrolled in school, either through an in-school or off-campus group survey session.

For the small number of students and dropouts who could not attend an off-campus survey session, telephone interviews were conducted using a version of the student or dropout questionnaire adapted for administration over the telephone. Given the mode of administration, test data were not collected for these sample members.

Overall, 91.0 percent (weighted) of the selected student sample completed a student questionnaire (N=16,842). Of the 16,842 who completed a questionnaire, 91.8 percent (N=15,461) received a full version of the questionnaire, of which 85.8 percent (N=13,267) also completed a cognitive test battery. The remaining 8.2 percent of the 16,842 student respondents completed a questionnaire modified slightly for telephone administration, and no cognitive test battery. For the dropout/alternative sample members, 88.0 percent (weighted) of the selected sample completed a dropout or student questionnaire (N=2,378). Of the 2,378 who completed a questionnaire, 71.1 percent (N=1,691) received a full version of the questionnaire, of which 56.7 percent (N=959) also completed a cognitive test battery. The remaining 28.9 percent of the 2,378 dropout and alternative respondents completed a questionnaire modified slightly for telephone administration, and no cognitive test battery. Table 4.3.2-1 summarizes the mode of questionnaire administration for student and dropout/alternative sample members.

4.3.3 Second Follow-Up Student Survey and Cognitive Tests

In-School Survey Sessions. From January to June, 1992, in-school survey sessions were held in all cooperating NELS:88 schools still enrolling second follow-up sample members. Second follow-up

Figure 4-2: Second follow-up tracing results (N=21,188)

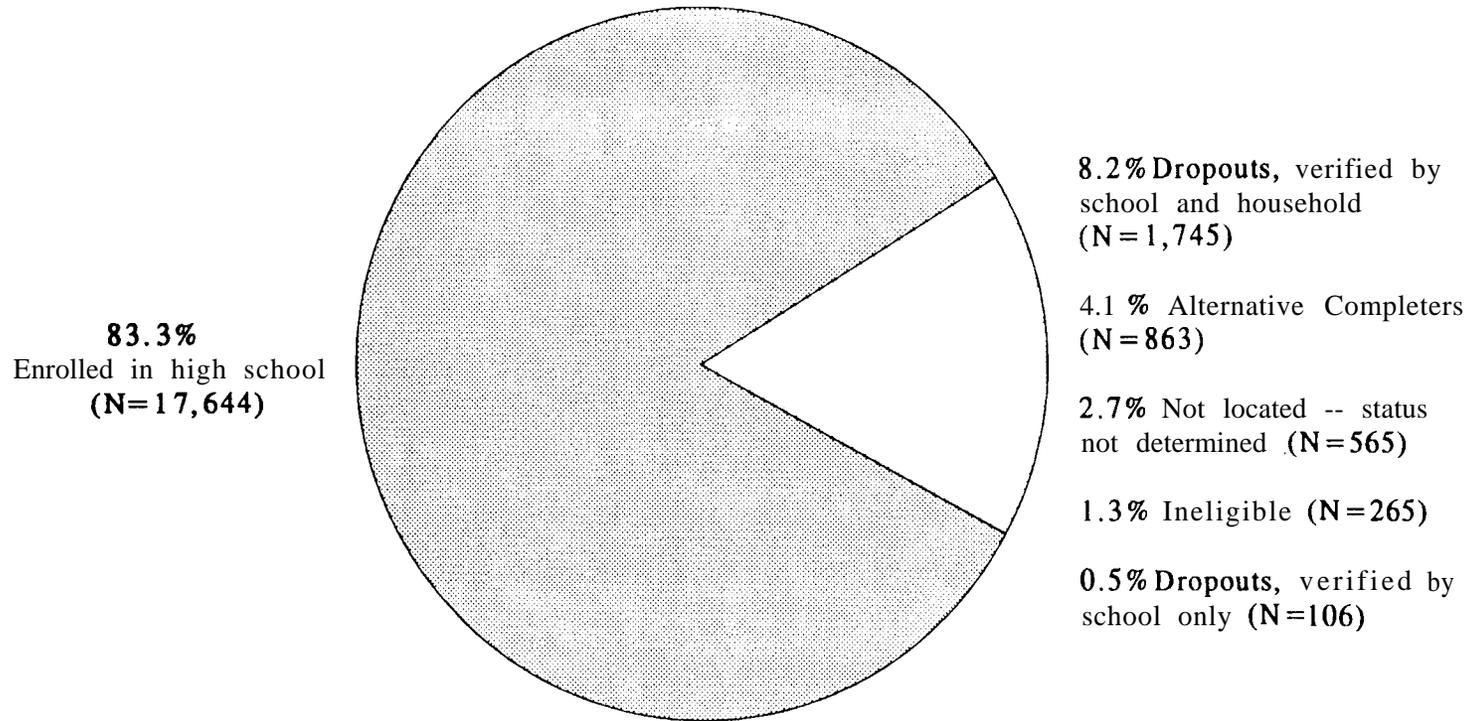


Table 4.3.2-1: Second follow-up questionnaire type by administration mode

| <u>Administration Type</u> | | <u>Student</u> | | <u>Dropout/Alternative</u> | | <u>Total</u> | |
|----------------------------|-------------|----------------|-------------------|----------------------------|-------------------|--------------|-------------------|
| <u>Version</u> | <u>Mode</u> | <u>N</u> | <u>% of total</u> | <u>N</u> | <u>% of total</u> | <u>N</u> | <u>% of total</u> |
| Full ^a | In person | 15,461 | 91.8% | 1,691 | 71.1% | 17,152 | 89.2% |
| Modified ^b | Telephone | 1,326 | 7.9% | 645 | 27.1% | 1,971 | 10.3% |
| Abbreviated ^c | Telephone | 55 | 0.3% | 42 | 1.8% | 97 | 0.5% |
| | Total: | 16,842 | | 2,378 | | 19,220 | |

^a Full questionnaires were administered to sample members who were surveyed in-person or by mail.

^b Modified questionnaires were administered to sample members who completed the questionnaire over the telephone. The same questions were used as in the full version, but the questions were adapted for better oral comprehension.

^c Abbreviated questionnaires were administered in a small number of cases where the respondents would not complete either a full or modified questionnaire.

data collection procedures were very similar to those used in the first follow-up. Student questionnaires and four cognitive tests in math, science, reading, and social studies were administered in group sessions of approximately 9 students during the first data collection at each school, and 3 students during any second in-school data collection sessions.

Survey administration was usually conducted in a school classroom or library and consisted of several steps. Students first completed the student questionnaire, and, if applicable, the new student supplement or the early graduate supplement. Students who had transferred into or out of a school within the two weeks prior to the survey session were asked to report on their previous school of attendance. Transfer students who had been at the surveyed school for two weeks or longer were asked to report on their current school. After the students completed the student questionnaires, an 85 minute battery of cognitive tests was administered. The tests consisted of four timed sections devoted to mathematics, reading, science, and social studies (history/citizenship/geography). Once the test battery was completed, an attempt was made to retrieve missing (or inappropriately marked) questionnaire items before the student left the classroom.⁶

At the end of the survey session, arrangements were made to conduct second in-school data collection sessions for students whose class schedule required that they leave before completing both instruments, and for students who were scheduled but unable to attend the initial survey session. If fewer than five students were scheduled for a make-up session, school staff were asked to handle the arrangements and oversee its administration; however, to ensure respondent confidentiality, school staff were prohibited from reviewing the student questionnaire for completeness. When five or more students were scheduled for a make-up session or when school staff were unavailable to conduct a make-up session, interviewers arranged a return visit to the school.

The second follow-up study attempted to collect a complete questionnaire and cognitive test from students and dropouts; however, for some sample members only an abbreviated version of the student or dropout questionnaire was collected, and the cognitive test was not collected at all.

Off-Campus Survey Sessions. Off-campus survey sessions, typically attended by one to three students, were conducted

⁶ At data collection sessions, interviewers reviewed the questionnaires to ensure that all critical items were completed. An oval indicating "no retrieval" was marked whenever the missing data could not be retrieved due to respondent refusal or inability to clarify a vague response.

primarily from March to July 1992. Students who were not enrolled in sampled schools, who had missed in-school data collection sessions, or who were enrolled in schools that had refused to participate in the study were invited to off-campus sessions and administered the student questionnaire and cognitive tests. Dropouts were also asked to attend these sessions and were surveyed alongside sample members who were currently enrolled in school. As with in-school survey sessions, off-campus survey sessions in the second follow-up were nearly identical to those in the first follow-up. If a sample member was unable to attend an off-campus group survey session, he or she was surveyed either over the telephone or in-person. When the student questionnaire was administered over the telephone, cognitive test data were not collected.

4.3.4 Second Follow-Up Dropout Survey

The NELS:88 second follow-up dropout survey sought to interview all sample members who had left school prior to graduation, including both first follow-up dropouts who had not returned to school and sample members who dropped out after the first follow-up. All sample members appear on the student data file regardless of their spring 1992 enrollment status. Basic classification variables and test data appear for both students and dropouts, though dropout questionnaire data appear separately on the dropout component data file.

School Enrollment Classification and Data Collection. In order to determine which sample members should complete a dropout questionnaire, school enrollment status was classified for all sample members during the spring of 1992.

Four types of enrollment classifications were identified, as illustrated in Figure 4-3. The first were high school students who were enrolled in a school which offered programs ending in the granting of a diploma. These students were administered the student questionnaire and, when possible, the cognitive test battery. Early graduates were included in this classification, and were asked to report retrospectively on the school from which they graduated and to complete supplemental questions about their reasons for graduating early.

The second type were sample members who dropped out of high school but later re-enrolled in a high school program to obtain a high school diploma. These sample members were administered the student questionnaire and, when possible, the cognitive test battery.

The third type were sample members who dropped out of high school but went on to seek an equivalent to a high school diploma such as the General Educational Development test (GED). If an alternative completer had finished the requirements of his or her equivalency program, the individual was classified as a "completer"

(in effect, an early graduate by alternative means) and the student questionnaire (including the early graduate supplement) was administered. If the alternative completer had not yet fulfilled the requirements for certification, the sample member was administered a dropout questionnaire. In both cases, the cognitive test battery was also administered when possible.

The fourth type were dropouts. These sample members had left their high school by the spring of 1992 and were not working toward an alternative certification. Dropouts were administered a dropout questionnaire and, when possible, the cognitive test battery.

Regardless of whether a dropout completed a student or dropout questionnaire, data collection efforts for the dropout component of the second follow-up were similar to those in the first follow-up survey. Interviewers attempted to survey most dropouts in off-campus survey sessions with testing conditions similar to in-school sessions.

For analytical purposes, sample members classified as alternative completers can be included or compared with either high school completers or dropouts. Additionally, alternative completers can be examined separately, depending on the needs of the analyst. For a complete description of the dropout component, see the *NELS:88 Second Follow-Up: Dropout Component Data File User's Manual*.

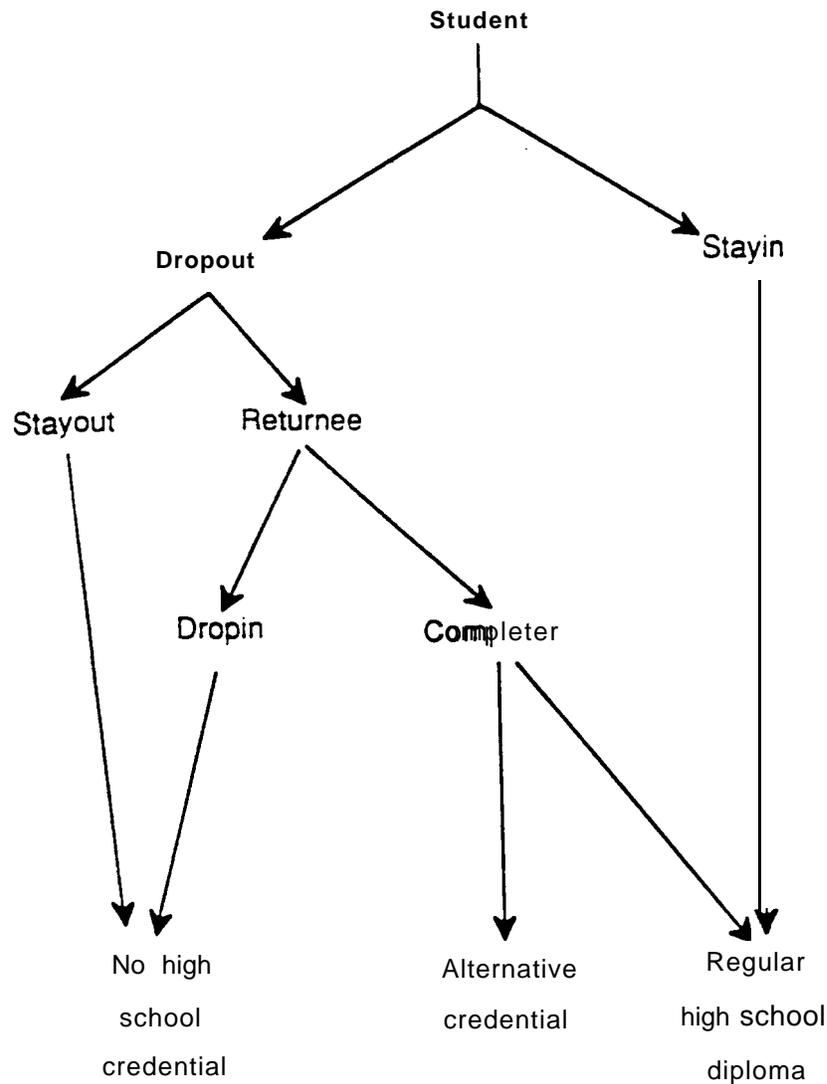
4.3.5 School Effectiveness Study

Since there was a high degree of overlap between school effectiveness study schools and NELS:88 study schools, students in these schools received the same data collection procedures as second follow-up cohort students.

Self-administered student questionnaires and cognitive tests were administered to SES students through both in-school and off-campus survey sessions. Unlike student cohort sample members, most SES students received an additional forty minute free-response cognitive test after they completed the eighty-five minute test battery. The subject area of the free-response test was randomly selected for each school in either mathematics or science.

In the 247 participating SES schools, SES sample members were administered the student questionnaire and cognitive tests. If SES students missed in-school data collection sessions, they were surveyed at off-campus survey sessions. Unlike the data collection procedures for the student cohort sample members, SES students who were no longer attending the school with which they were associated were not pursued or surveyed; however enrollment status was gathered for these students from the SES schools. A more detailed discussion of the school effectiveness study will be presented in forthcoming documentation, which will accompany the release of those data.

Figure 4-3: Alternative educational paths through high school



Note: A within-round dropout-returnee is, in NELS:88 parlance, a "stopout." During the second follow-up, a stopout was defined as a sample member who had dropped out of school at some point in the 1990-1991 or 1991-1992 school years, but had returned to school by the spring of 1992. A similar definition was employed in the NELS:88 first follow-up. In the above diagram the term "dropin" refers to a sample member who dropped out of high school, then returned to high school (making the sample member a stopout as described above), and then dropped out of high school again for a final time.

Source: The Condition of Education, NCES, 1986

4.3.6 Followback Study of Excluded Students (FSES)

In the first follow-up study, most classification changes were made for a sample of students who had been excluded from the base year study. Of the 618 base year ineligible sample members (BYIs), 580 were located and 312 were reclassified as eligible during the first follow-up. (Table 4.2.4-1 contains additional completion rate data for the BYI study.) In the second follow-up, the remaining ineligible students--BYIs who were ineligible in the first follow-up or more rarely, students who were eligible in the base year but who became ineligible in the first follow-up through the occurrence of some sort of incapacitation--were pursued as a part of the Followback Study of Excluded Students.

The Followback Study of Excluded Students of the NELS:88 second follow-up attempted to reassess the eligibility status and ascertain the enrollment status of students who: 1) had been excluded because of linguistic, mental, or physical obstacles to participation when the baseline sample of eighth graders was drawn in the 1987-88 school year, and were subsampled into the Base Year Ineligible Study in the first follow-up; 2) were eligible in the base year but became ineligible in the first follow-up; or, 3) were identified as ineligible when selected through the freshening process in the first follow-up. If the students had since become eligible for NELS:88, the followback study attempted to survey them.

The followback study continued the first follow-up base year ineligible study for several purposes. First, if the 5.3 percent of the potential base year sample declared ineligible differed in key characteristics or outcomes from the sample of students included in NELS:88, this difference could bias baseline results and subsequent longitudinal measurements. By learning more about these excluded students and their current school enrollment status, one might correct for potential undercoverage bias that could affect key national estimates, such as dropping out between eighth and twelfth grade.

Second, an individual's eligibility status could potentially change. A student excluded on language grounds in 1988 or 1990 could have gained sufficient proficiency in English by 1992 to complete the student questionnaire. Like the complementary activity of sample freshening, the followback study of excluded students helped to generate a nationally representative sample of twelfth-grade students.

Third, eligibility rules were modified in the first follow-up and retained in the second follow-up to allow for completion of the student questionnaire in Spanish in addition to English. By giving 1988 and/or 1990 excluded students who could complete a questionnaire only in Spanish the opportunity to do so in 1992, the revised eligibility rules of the first follow-up were successfully carried back to the base year cohort.

Data Collection Procedures. Data collection for the followback study of base year excluded students took place during the main study data collection effort between April and October, 1992. Interviewers attempted to identify excluded students who were eligible to be added to the longitudinal sample in the second follow-up. They obtained the following information about the excluded student from the student's current school, school last attended, or the student's home:

- **Sex (if unknown):** male or female;
- **Race/ethnicity (if unknown):** white, black, Hispanic, Asian/PI, American Indian, other;
- **School enrollment status:** student, dropout, or dropout in alternative program; and,
- **Eligibility:** English/Spanish language proficiency, lack of mental or physical disability (i.e., ability to complete a questionnaire), reading ability level of at least eighth grade.

After collecting the above information about the students, interviewers attempted to identify whether or not the student was capable of meaningful participation in the survey under normal conditions. To make this assessment, interviewers were instructed to obtain reports from persons with first-hand knowledge of the students, such as a special education teacher, a bilingual teacher, a language arts teacher, or a guidance counselor. Interviewers often spoke with several staff members to identify the staff member who was most qualified to assess whether or not the student could participate. Unless there were severe mental or physical disabilities or lack of facility with written English or Spanish and the member was unable to complete the survey instruments under normal circumstances, the student was considered eligible to participate in the study.

The results of data collection for FSES are summarized in Table 4.3.6-1. Eligibility information was gathered for 94.7 percent of the excluded sample members. For excluded students who were identified as eligible, student or dropout questionnaires were administered either in-person or over the telephone. Cognitive tests were administered to a small percentage of these students. For students who remained ineligible, school enrollment status and other key characteristics were obtained.

4.3.7 Second Follow-Up Data Collection Results

Tables 4.3.7-1 through 4.3.7-3 summarize the data collection results for the student and dropout components of the NELS:88 second follow-up study. Panel completion rates reported in tables 4.3.7-2 and 4.3.7-3 represent the proportion of base year completers who were also first follow-up completers, for whom a

second follow-up questionnaire was completed as well. (Eighth grade cohort members who failed to participate in 1988, in 1990, or in both rounds, are excluded from the base for this statistic.) Completion rates in 1992 for 1988-90 participants are reported overall and by subgroups of interest.

However, one may wish to view panel maintenance and attrition from additional perspectives. For example, one may wish to consider what proportion of the 1990 first follow-up-retained 1988-eligible base year cohort has participated in all three waves of NELS:88 to date. When the panel so defined--that is, all 1990-retained 1988-eligible students and dropouts, including those who have died or suffered a grave impairment that has made them ineligible, and those who have been out-of-scope (out of the country) for either or both follow-up waves--the proportion who participated (that is, completed a student/dropout questionnaire) in all three (1988, 1990, and 1992) waves is 84 percent. Another statistic of interest is the proportion of base year participants successfully resurveyed in each follow-up round. Some 95 percent (94.7%) of base year questionnaire completers also completed a questionnaire in the first follow-up, and 93 percent (93.1%) of base year questionnaire completers participated in the second follow-up. About 90 percent (89.7%) of base year participants completed both the first (1990) and second (1992) follow-up questionnaires.

**Table 4.3.6-1 Results of the NELS:88 followback study
 of excluded students (FSES) (N = 370)**

| ORIGIN AND ELIGIBILITY STATUS AS OF THE SECOND FOLLOW-UP | | | | | | |
|---|--------------------------|------------------|-----------------------------------|--------|------------------------|--------|
| | Base Year Ineligibles | | First Follow-Up Ineligibles | | Total in FSES Study | |
| | N | % of total | N | % | N | % |
| Eligible | 74 | 24.4% | 28 | 100.0% | 102 | 27.6% |
| Ineligible | 185 | 61.1% | 38 | 100.0% | 223 | 60.3% |
| Out-of- Scope | 28 | 9.2% | 1 | 100.0% | 29 | 7.8% |
| Not Located | 16 | 5.3% | 0 | 0.0% | 16 | 4.3% |
| Total BYI Sample Members | 303 ^a | 100.0% | 67 | 100.0% | 370 | 100.0% |

^a Of the original 674 Base Year Ineligibles, 56 were found to be sampling errors in the first and second follow-ups, 312 were deemed eligible for participation in the first follow-up, and 3 became deceased, leaving the total of 303 BYIs in the chart above.

Table 4.3.7-1 NELS:88 second follow-up component survey completion rates by selected characteristics

| | Student sample Completion rates | | Student 12th grade test ^a Completion rates | | Dropout/Alternative ^b sample Completion rates | | Dropout/Alt. 12th grade test ^c Completion rates | | School questionnaire ^d Completion rates | | School questionnaire ^e Completion rates | |
|----------------------------------|---------------------------------|-------|---|-------|--|-------|--|-------|--|-------|--|-------|
| | Wtd | Unwtd | Wtd | Unwtd | Wtd | Unwtd | Wtd | Unwtd | Wtd | Unwtd | Wtd | Unwtd |
| Total | 91.0 | 92.5 | 76.6 | 78.8 | 88.0 | 87.6 | 41.7 | 40.3 | NA | 97.1 | 98.3 | 98.2 |
| Participated | 16,842 | | 13,267 | | 2,378 | | 959 | | 1,326 | | 15,409 | |
| Selected | 18,209 ^f | | 16,842 | | 2,714 | | 2,378 | | 1,366 | | 15,695 | |
| School type^g | | | | | | | | | | | | |
| Public | 94.7 | 95.3 | 76.8 | 78.9 | NA | NA | NA | NA | NA | 97.2 | 98.4 | 98.4 |
| Catholic | 98.4 | 98.0 | 79.7 | 84.5 | NA | NA | NA | NA | NA | 97.1 | 96.6 | 96.7 |
| Other private | 94.8 | 95.5 | 73.1 | 75.6 | NA | NA | NA | NA | NA | 96.0 | 98.5 | 97.2 |
| Urbanicity^g | | | | | | | | | | | | |
| Urban | 95.0 | 95.8 | 73.6 | 76.7 | NA | NA | NA | NA | NA | 97.0 | 98.2 | 98.3 |
| Suburban | 94.4 | 95.2 | 74.9 | 75.7 | NA | NA | NA | NA | NA | 97.4 | 98.5 | 98.2 |
| Rural | 95.5 | 95.5 | 82.4 | 85.3 | NA | NA | NA | NA | NA | 96.6 | 99.8 | 98.0 |
| Region^g | | | | | | | | | | | | |
| Northeast | 94.3 | 94.7 | 77.6 | 76.7 | NA | NA | NA | NA | NA | 94.7 | 97.9 | 96.8 |
| South | 95.4 | 95.8 | 77.7 | 81.7 | NA | NA | NA | NA | NA | 97.3 | 98.2 | 98.4 |
| Midwest | 96.1 | 95.8 | 78.6 | 80.7 | NA | NA | NA | NA | NA | 97.8 | 98.5 | 98.7 |
| West | 92.9 | 95.4 | 72.2 | 74.2 | NA | NA | NA | NA | NA | 98.3 | 98.7 | 98.6 |
| Ethnicity | | | | | | | | | | | | |
| Asian/PI | 91.7 | 92.7 | 75.2 | 75.5 | 74.7 | 82.4 | 47.6 | 35.7 | NA | NA | 98.2 | 98.9 |
| Hispanic | 86.6 | 89.8 | 73.9 | 76.6 | 88.3 | 87.5 | 35.6 | 36.1 | NA | NA | 98.8 | 98.9 |
| Black | 88.1 | 90.5 | 74.6 | 77.1 | 84.8 | 83.6 | 37.2 | 38.7 | NA | NA | 98.3 | 98.0 |
| White | 93.5 | 94.2 | 77.8 | 80.1 | 89.7 | 89.5 | 44.2 | 42.4 | NA | NA | 98.3 | 98.0 |
| Am. Indian | 90.3 | 86.5 | 74.0 | 74.3 | 97.6 | 95.8 | 51.5 | 49.3 | NA | NA | 98.7 | 98.7 |
| Refused/ Missing ⁱ | 28.5 | 33.2 | 22.2 | 31.1 | 55.9 | 61.5 | 23.5 | 25.0 | NA | NA | 97.9 | 97.8 |

- ^a 12th-grade cognitive test coverage rate for each student who completed a questionnaire.
- ^b Alternative completers could have completed either a student or dropout questionnaire, depending on status during data collection. 350 alternative sample members completed a student questionnaire, and 457 completed a dropout questionnaire.
- ^c 12th-grade cognitive test coverage rate for each dropout who completed a questionnaire.
- ^d 12th-grade school completion rate (for school questionnaire) of eligible contextual schools, where at least one student completed a questionnaire.
- ^e 12th-grade school questionnaire coverage rate for each student who completed a questionnaire and was enrolled in an eligible contextual school.
- ^f 565 unlocatable cases were assumed to be eligible students for the purposes of calculating student completion rate, and are included in the total of 18,209.
- ^g Refers to second follow-up school.
- ^h Not Applicable -- Completion rates by school type, urbanicity, and region are calculated based on the school a student attended in the second follow-up. Because dropouts are not linked to schools on the public use magnetic tape, it is not possible to calculate dropout completion rates for these subgroups.
- ⁱ Refused/Missing refers only to the status of a sample member's ethnicity. It does not refer to sample members who did not participate in the second follow-up.

Table 4.3.7-2 NELS:88 second follow-up completion rates for base year-first follow-up panel participants by selected characteristics^a

| | Student/Dropout questionnaire (BY, F1 and F2) Completion rates | | Student/Dropout cognitive test ^b (BY, F1 and F2) Completion rates | | Student/Dropout cognitive test ^c (BY and/or F2) Completion rates | |
|---|---|-------|---|-------|--|-------|
| | Wtd | Unwtd | Wtd | Unwtd | Wtd | Unwtd |
| Total | 94.7 | 95.1 | 69.6 | 72.2 | 99.0 | 99.0 |
| Participated | 16,489 ^d | | 11,902 | | 16,331 | |
| Selected | 17,337 | | 16,489 | | 16,489 | |
| School type^e | | | | | | |
| Public | 94.3 | 94.7 | 62.9 | 71.4 | 99.0 | 99.1 |
| Catholic | 97.9 | 97.0 | 74.1 | 78.6 | 99.1 | 99.2 |
| Other private | 97.4 | 97.0 | 73.0 | 73.7 | 99.2 | 98.7 |
| Urbanicity^e | | | | | | |
| Urban | 93.5 | 95.1 | 64.3 | 69.5 | 98.4 | 98.8 |
| Suburban | 95.5 | 95.3 | 69.1 | 70.1 | 99.0 | 98.9 |
| Rural | 94.8 | 94.9 | 74.6 | 77.2 | 99.5 | 99.4 |
| Region^e | | | | | | |
| Northeast | 94.8 | 95.1 | 70.3 | 71.3 | 99.0 | 98.6 |
| South | 94.1 | 94.5 | 68.2 | 73.1 | 99.1 | 99.1 |
| Midwest | 95.7 | 96.0 | 74.9 | 76.4 | 99.2 | 99.5 |
| West | 94.6 | 95.1 | 63.7 | 65.7 | 98.5 | 98.7 |
| Ethnicity | | | | | | |
| Asian/PI | 93.3 | 95.0 | 71.5 | 71.9 | 99.6 | 99.6 |
| Hispanic | 93.1 | 94.4 | 63.9 | 65.5 | 98.2 | 98.3 |
| Black | 92.4 | 92.6 | 59.6 | 67.0 | 98.6 | 98.6 |
| White | 95.5 | 95.7 | 72.1 | 74.2 | 99.2 | 99.2 |
| Am. Indian | 94.1 | 91.3 | 64.8 | 64.0 | 99.7 | 99.4 |
| Refused/Missing ^f | 81.1 | 75.0 | 38.3 | 55.6 | 100.0 | 100.0 |
| Minority schools^e | | | | | | |
| Schools with more than 19% minority students | 92.2 | 93.5 | 55.1 | 59.3 | 98.6 | 98.4 |
| Schools with less than or equal to 19% minority students | 95.0 | 95.3 | 71.0 | 73.5 | 99.1 | 99.1 |

- ^a These panel completion rates are the proportion of base year-first follow-up completers for whom a second follow-up questionnaire was completed but excludes base year nonparticipants. Refer to section 4.6 for information on alternative approaches to calculating panel completion rates.
- ^b Cognitive test coverage rate for each sample member who has completed a BY student questionnaire, F1 and F2 student/dropout questionnaire.
- ^c Cognitive test coverage rate for each sample member who has completed a BY student questionnaire and/or a F2 student/dropout questionnaire.
- ^d Sample members who participated in the BY, F1 and F2.
- ^e Refers to 8th-grade schools.
- ^f Refused/Missing refers only to the status of a sample member's ethnicity. It does not refer to sample member nonparticipants.

Table 4.3.7-3 NELS:88 second follow-up completion rates for base year-first follow-up panel participants by selected characteristics^a

| | Student questionnaire (BY, F1 and F2) Completion rates | | School questionnaire ^b (BY, F1 and F2) Completion rates | | School questionnaire ^c (BY and/or F2) Completion rates | |
|--|---|---------------------|---|--------|--|--------|
| | Wtd | Unwtd | Wtd | Unwtd | Wtd | Unwtd |
| Total | 95.7 | 96.1 | 95.5 | 95.6 | 99.9 | 99.8 |
| Participated | | 14,674 ^d | | 13,182 | | 13,762 |
| Selected | | 15,269 | | 13,783 | | 13,783 |
| School type^e | | | | | | |
| Public | 95.4 | 95.8 | 95.8 | 95.7 | 99.9 | 99.8 |
| Catholic | 98.2 | 97.3 | 94.3 | 94.8 | 100.0 | 100.0 |
| Other private | 97.5 | 97.1 | 93.5 | 95.8 | 100.0 | 100.0 |
| Urbanicity^e | | | | | | |
| Urban | 94.4 | 96.4 | 93.7 | 94.7 | 100.0 | 100.0 |
| Suburban | 96.2 | 96.1 | 94.4 | 94.3 | 100.0 | 100.0 |
| Rural | 95.8 | 95.9 | 98.4 | 98.2 | 99.7 | 99.5 |
| Region^e | | | | | | |
| Northeast | 95.2 | 95.5 | 94.9 | 94.6 | 100.0 | 100.0 |
| South | 95.8 | 96.2 | 95.6 | 95.9 | 100.0 | 100.0 |
| Midwest | 96.2 | 96.5 | 97.5 | 97.8 | 100.0 | 100.0 |
| West | 95.5 | 96.0 | 93.1 | 93.2 | 99.4 | 99.2 |
| Ethnicity | | | | | | |
| Asian/PI | 94.9 | 95.8 | 90.2 | 93.9 | 99.9 | 99.9 |
| Hispanic | 94.2 | 95.8 | 89.8 | 91.3 | 100.0 | 99.9 |
| Black | 94.3 | 95.0 | 95.1 | 95.3 | 100.0 | 100.0 |
| White | 96.2 | 96.4 | 96.5 | 96.5 | 99.9 | 99.8 |
| Am. Indian | 93.8 | 90.9 | 97.6 | 97.3 | 100.0 | 100.0 |
| Refused/Missing ^f | 74.2 | 72.7 | 100.0 | 100.0 | 100.0 | 100.0 |
| Minority schools^e | | | | | | |
| Schools with more than 19% minority students | 92.5 | 96.3 | 90.7 | 90.0 | NA | 100.0 |
| Schools with less than or equal to 19% minority students | 96.0 | 94.4 | 96.0 | 96.2 | NA | 99.8 |

- a These panel completion rates are the proportion of base year-first follow-up completers for whom a second follow-up questionnaire was completed but excludes base year nonparticipants. Refer to section 4.6 for information on alternative approaches to calculating panel completion rates.
- b School questionnaire coverage rate for each student who has completed a BY, F1 and F2 student questionnaire.
- c School questionnaire coverage rate for each student who has completed a BY and/or a F2 student questionnaire.
- d Panel *students* only.
- e Refers to 8th-grade schools.
- f Refused/Missing refers only to the status of a sample member's ethnicity. It does not refer to sample member nonparticipants.