

## II. Data Collection Instruments

The data collection instruments for the NELS:88 base year study consisted of four separate questionnaires and a battery of eighth grade tests.

All four NELS:88 questionnaires were designed to provide continuity and consistency with earlier education longitudinal studies. Where appropriate, NELS:88 drew from NLS-72, HS&B, and other current NCES studies--in particular, the National Assessment of Educational Progress (NAEP) and the Schools and Staffing Study--in order to ensure a common standard of measurement that would permit comparisons and maximize the utility of NELS:88 data. Figure 2-1 provides a comparative overview of the specific content areas covered by each of the NELS:88 base year questionnaires.

A brief description of the contents of the data collection instruments used in the NELS:88 base year follows.

### 2.1 Student Questionnaire and Eighth Grade Tests

A 45-minute self-administered student questionnaire was completed by eighth grade students in the classrooms of their schools. The student questionnaire was designed to collect information about a wide range of topics, including the student's and parents' background, language use, family background, perceptions of self, plans for the future, jobs and household chores, school life, school work, and school activities.

Students also completed a series of cognitive tests, which were administered in a single group session. The combined tests included 116 items to be completed in 85 minutes. The eighth grade tests are described briefly below:

**Reading (21 items, 21 minutes):** consists of five short passages followed by comprehension and interpretation questions.

**Mathematics (40 items, 30 minutes):** consists of quantitative comparisons and other questions assessing mathematical knowledge.

**Science (25 items, 20 minutes):** questions assessing science knowledge and scientific reasoning ability.

**History/Government (30 items, 14 minutes):** questions assessing knowledge of U.S. history, civics, and government.

NORC's subcontractor, the Educational Testing Service (ETS), developed the cognitive test battery. In order to facilitate comparisons with test data from other national studies, NELS:88 borrowed or adapted a number of test items from NAEP and from earlier education longitudinal studies. Properties of the tests and the test item reliabilities are discussed in ETS's report, *Psychometric Report for the NELS:88 Base Year Test Battery* (1989), which can be obtained from NCES.

### 2.2 Parent Questionnaire

A self-administered 30-minute questionnaire was completed by one of the student's parents on about the same date that the student questionnaire and eighth grade tests were administered. The

Figure 2-1.--Content areas in NELS:88 base year questionnaires

Content Category	Student	Parent	Teacher	School
Constitutional factors	Student's sex, birth date	Responding parent's sex, birth date	Teacher's sex, birth date	
Race/ethnicity	Self-reported race/ethnicity	Parent's race/ethnicity	Teacher's race/ethnicity	School(student/faculty) race/ethnic composition
Characteristics of home	Number of brothers and sisters	Number of brothers and sisters, marital status of parents, religion practiced at home, language spoken at home	Identification of students who may have problems relating to home environment (e.g., limited English proficiency, health)	Percent of students in single-parent homes Percent of students with limited English proficiency
Socioeconomic status	Parental occupation and education; items in home (e.g., computer, VCR)	Parent occupation, income, education		
Work status	Jobs or chores done for pay	Parental employment status	Teacher employment status	
Opinion values	Self-concept Locus of control Opinions of self		Teacher impressions of sampled student	
School characteristics				School type (e.g., public, private; major program orientation); days in school year, class periods in days
School atmosphere	Self-reported attitude toward alcoholism, illegal drugs, and other problems in school; school discipline in classes	Parent's attitudes toward atmosphere, standards, and policies	Teacher attitudes towards drugs; verbal and physical abuse of teachers and other problems in the school	Teacher morale, structure and competitiveness of grades, physical conflicts of students, robbery, thefts, and verbal abuse
School work	Self-reported tardiness, absenteeism, homework, attitudes towards mathematics, social studies, and science	Contact from school about student's performance and curriculum; help given by parent to child with homework; use of computer in home	Homework assigned, instructional methods and materials used, student tardiness, and absenteeism; content areas covered in English, mathematics, social studies, and science	Student tardiness, absenteeism, degree to which students are expected to do homework

**Figure 2-1.--Content areas in NELS:88 base year questionnaires--Continued**

Content Category	Student	Parent	Teacher	School
School performance	Self-reported grades; performance in mathematics, science, English, and social studies sections of the NELS:88 cognitive test battery	Parental expectations for child's grades	Teacher impressions of student achievement	
Guidance	Student-reported availability of counseling (for education plans, jobs, careers, drug abuse, etc.) given by school employee, adult relative, or friend	Parent talks at home with child about school, high school plans, or homework		Availability of guidance counseling for students in school
Special programs	Participation in special programs (e.g., gifted and talented, special education)	Physical and mental limitations of students; special services rendered (e.g., for gifted and talented or special needs student)	Teacher involvement and satisfaction with gifted and talented programs	Special services (e.g., gifted and talented programs)
After-school supervision	Parental supervision	Parental supervision; after-school childcare arrangements		
Involvement with community	Family life, cultural experience, participation in neighborhood programs	Family life, activities in community (e.g., borrows books from library, attends concerts, museums, participates in community-based groups)		
After-school activities	Extracurricular activities; outside-school classes and clubs	Student enrollment in outside school clubs		
Life goals, educational and occupational	Student and parent expectations of how far in school student will advance; student's desired occupation	Parental expectations of educational attainment of child		
Financial assistance			Proposed financial aid for future education	Percent of students receiving aid in school

instructions in the questionnaire and accompanying letter directed the most knowledgeable parent (or guardian) to complete the questionnaire. The most knowledgeable parent was defined as the parent who knows the most about the student's educational activities and related behaviors. In accordance with this definition, the respondent was self-selected.

The parent questionnaire was designed to collect information from parents about factors that influence educational attainment and participation. The questions focused on family background and socioeconomic characteristics, and on the character of the home educational support system. These data will allow analysis of the effect on student educational outcomes of parental behaviors concerning student course selection, long-range educational planning, participation in school activities and nonschool extracurricular activities, and the establishment of discipline at home. In addition, the parent instrument collected data related to parental behaviors and circumstances with which the student may not be familiar, such as parental education and occupation, and contained more sensitive items relating to income and religious affiliation. The questionnaire also included a section that gathered information to be used in locating the respondent for subsequent follow-ups. English and Spanish language versions of the questionnaire were made available to parents.

The object of the parent questionnaire was to provide data that could be used primarily in the analysis of student behaviors and outcomes, and only secondarily as a data set by itself. Parent questionnaires were administered to one parent of each student in the core sample.

### **2.3 Teacher Questionnaire**

A self-administered teacher questionnaire was completed by selected teachers responsible for instructing sampled students in two of the four test subjects (mathematics, science, reading, and social studies).<sup>2</sup> It is important to note that the teacher survey was designed primarily to obtain student-level data, as reported by teachers, pertaining to specific eighth grade students and the courses in which they were enrolled. Although some teacher-level data were collected, the primary emphasis was on information that may help account for the subsequent educational development of the sampled students. Issues that received principal consideration included the quality, equality, and diversity of educational opportunity, and the effect of these factors upon individual development and educational and career outcomes.

The teacher questionnaire was designed to collect information in three areas: teachers' perceptions of the sampled students' classroom performances and personal characteristics; curriculum content of areas that they teach; and teachers' background and activities. Teachers were asked to respond to the questionnaire items in relation to a specific list of sampled eighth grade students enrolled in their classes. The contents of these three sections are described below.

Part I, Student Information, asked the teachers to indicate which of the sampled students they had had in their classes during the 1987-88 academic year, and for those students enrolled in their class(es), to indicate whether or not the student had various school-related problems and handicaps.

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2 Section 4.3.3 provides additional information about the selection procedures for teachers and the assignment of subject combinations to schools.

Part II, Class Information, required the teacher to respond to a series of course-related questions regarding a distinct set of classes they had been identified as teaching to one or more of the sampled students. Subsections of items within this segment of the questionnaire applied to the four specific curriculum areas (i.e., mathematics, science, English, and social studies), enabling teachers to respond to these subsections as appropriate.

Part III, Teacher Background and Activities, requested teachers to provide general background information about themselves and their school.

NORC's subcontractor, Westat, prepared the teacher questionnaire under the direction of NORC and NCES.

## **2.4 School Administrator Questionnaire**

A self-administered 40-minute school administrator questionnaire was completed by the school principal, headmaster, or other knowledgeable school administrator designated by the principal. The questionnaire was designed to collect information about school, student, and teacher characteristics; school policies and practices; the school's grading and testing structure; school programs and facilities; parent involvement in the school; and school climate.

The primary purpose of the school administrator questionnaire was to gather general descriptive information about the educational setting and environment associated with the individual students who were selected for participation in NELS:88. The school information describes the overall academic climate in terms of enrollments and educational offerings, as well as specific school policies. The information obtained through the school administrator questionnaire provides supplemental information to that provided by the student questionnaire so that student outcome and achievement data can be considered in terms of the educational setting. School-level data will provide a basis for distinguishing patterns among eighth grade schools as they relate to the transition of students to the tenth grade and beyond. NORC and its subcontractor, Westat, collaborated in designing the instrument.