| AUTHOR | Ingels, Steven J.; And Others |
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## ABSTRACT

This manual was produced to familiarize data users with the procedures followed for data collection and processing of the second follow-up teacher component of the National Education Longitudinal Study of 1988 (NELS:88) and to provide the necessary documentation for use of the data file. The NELS: 88 teacher component was designed to provide teacher information that could be used to analyze the behaviors and outcomes of the student sample. The teacher survey instrument was administered to one mathematics or science teacher of second follow-up sample members enrolled in mathematics or science in a NELS:88 sampled school. It collected teacher evaluations of student characteristics, and performance and curricular information. Parts $1,2,3$, and 4 contain an overview of the study, descriptions of data collection instruments and processes, and a review of sample design and weighting. Parts 5 and 6 describe data control, preparation, and processing. Chapter 7, and Appendix D, contain the information necessary to use the file. In all, there are 10 appendixes with supplemental information. Fourteen tables and 12 figures present some study data. (SLD)

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## NATIONAL CENTER FOR EDUCATION STATISTICS

National Education Longitudinal Study of 1988

## Second Follow-Up: Teacher Component Data File User's Manual



[^1]Peggy Quinn
Project Officer
National Center for Education Statistics

U.S. Department of Education<br>Richard W. Riley<br>Secretary<br>Office of Educational Research and Improvement<br>Sharon P. Robinson<br>Assistant Secretary<br>National Center for Education Statistics<br>Emerson J. Elliott<br>Commissioner

## National Center for Education Statistics

"The purpose of the Center shall be to collect, 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).

September 1994

Contact:
Peggy Quinn
(202) 219-1743

## Foreword

This manual has been produced to familiarize data users with the procedures followed for data collection and processing of the second follow-up teacher 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 D, in particular, contain ssential information that allows the user to immediately proceed with minimal startup cost. A careful reading of Chapter VII and Appendix D 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 and non-sampling measurement errors.

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 publications; an overview of the content of the teacher survey; guidelines for Statistical Analysis System (SAS) users; the NELS:88 second follow-up teacher questionnaire; lists of items for which data was retrieved; the items included in an abbreviated version of the questionnaire; the record layout for the teacher questionnaire; and a teacher codebook. A glossary of terms used in NELS:88 conistitutes the final section of the manual.

In addition to the study described in this manual, a number of supplemental NELS:88 components and related education studies are also described in Appendix A. These studies include: 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 idertified.

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 are 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 staffRalph Lee, Shi-Chang Wu, and Jerry West-contributed to various aspects of this study. Bob Burton of the Statistical Standards and Methodology Division supplied statistical advice and review.

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Steven J. Ingels was overall NELS:88 Second Follow-Up project director. Lisa Thalji, assisted by Pau! Pulliam and Jim Stipe, was project manager for the teacher component. John Baldridge and Gloria Rauens performed extensive data cleaning, item nonresponse analysis, and quality control of the data files. Laura Reed and Virginia Bartot were the data processing managers, and Martin R. Frankel was the task leader for sampling and statistics. Miriam K. Clarke provided counsel on management issues in the main study, and Leslie A. Scott contributed to the conceptualization and development of file specifications and composite variablt i. Donald A. Rock and Judith M. Pollack of Educational Testing Service were the task leaders for cognitive test development. Barbara L. Schneider provided valuable consultation on teacher questionnaire design issues.

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## I. Introduction

This manual provides guidance and documentation for users of the public release data for the teacher component of the National Education Longitudinal Study of 1988 (NELS:88). Information about the purpose of the study, the data collection instruments, sample design, data collection, and data processing procedures is presented in this manual.

### 1.1 The NELS:88 Second Follow-Up Teacher Survey

The NELS:88 teacher component was designed to provide teacher information that could be used to analyze the behaviors and outcomes of the student sample. The teacher survey instrument was administered to one mathematics or science teacher of second follow-up sample members enrolled in mathematics or science in a NELS:83 sampled school. The questionnaire elicited teacher evaluations of student characteristics, performance in the classroom, and curricular information about the classes taught to sample members. It also collected background information about the teachers and their schools, including both teacher demographic and professional characteristics, information about teachers' school activities, such as parent-teacher and teacher-school interactions, and perceptions of school climate and culture.

### 1.2 The Second Follow-Up Teacher Sample

The teacher survey attempted to collect one mathematics or science teacher report for each sampled student enrolled in a mathematics or science course in a NELS:88 sampled school; teachers of NELS:88 students who were not enrolled in one of the NELS:88 schools were not eligible for the teacher survey. Because the subject area of the teacher report was either mathematics or science, the student needed to be enrolled in one of these subject areas to be eligible for a teacher report. In the base year teacher survey, either a mathematics or science teacher reported on each student. Students enrolled in only one class, mathematics or science, were eligible for the one teacher report, regardless of the subject area of their base year teacher report. For students in the second follow-up who were enrolled in both mathematics and science, either a mathematics or science teacher was surveyed depending on the student's base year subject area assignment.

Although the student sample constitutes a nationally representative cross-section of 1992 twelfthgrade students, the NELS: 88 teacher sample does not constitute a nationally representative sample of tweifth-grade teachers alone. The teacher sample was entirely student driven. Each teacher's appearance in the sample depended upon his or her linkage to a sampled student who chose to participate in the NELS:88 second follow-up, and not all students were earolled in schools in which the teacher survey was conducted.

Additionally, the sample does not constitute a representative sample of teachers even in the two subject areas to which the teacher study was restricted. Unlike the base year, in which the school sample constituted a representative sample of all eighth-grade schools in the nation in 1988, the second follow-up school sample was determined by the dispersion patterns of base year and first follow-up sample members to twelfth-grade schools, and does not constitute a national probability scmple of schools. Even if all the teachers in the two subject areas in the NELS:88 schools had been included, the population from which NELS:88 teachers were selected would not have been representative of all twelfth-grade teachers in the nation. Although it is possible to create teacher-level and course-level data sets using the second fnllowup teacher data, they are not valid probability samples and no statistical weight has been provided for this level of analysis. However, the NELS: 88 second follow-up contextual weight adjusts the teacher data
used in conjunction with the student data such that it provides, for example, nationally representative samples of both seniors and 1988 eighth graders entolled in math or science courses in 1992.

### 1.3 Structure of the Teacher Data File

The teacher data file is organized at the level of student-teacher pairs. Data from 5,657 teachers inked to 15,695 students are contained in the teacher file. This file also contains student information, class information, and teacher background information. An identification code permits linkage to other files (see Chapter VII for instructions for making this link). Further details of the file structure for the teacher survey are provided in Chapter VI.

Because the second follow-up teacher data cannot be used to make generalizations to the population of twelfth-grade teachers, teacher weights have not been provideai on the teacher data file. However, because the NELS: 88 teachers are, essentially, informants on NELS: 88 students, the contextual student weight available on the teacher file can be used in conjunction with the teacher data when students are employed as the central unit of analysis and their teachers as a source of contextual data. Weighted frequencies in the codebook to this user's manual reflect use of the second follow-up contextual weight, F2CXTWT, with the teacher data.

### 1.4 Organization of the Data User's Manuals

NELS: 88 data sets have been produced in both public use and restricted use form. The public use data files reflect alteration or supprersion of some of the original data imposed to minimize the risk of statistical disclosure of the identity of responding individuals and institutions. The restricted use files preserve the original data free of all confidentiality edits. Data files with high disclosure potential, specifically the transcript file and the school effectiveness study file, are available in restricted form only. This manual may be utilized with both the public use and restricted use data files. Variables that were modified or suppressed on the public use files, but appear on the restricted use version of the data, are included in the codebook in their modified public use form. A more detailed discussion of measures used to preserve respondent confidentiality, and of procedures for gaining access to restricted use data, may be found in section 1.8 of this manual.

In addition to documentation for the restricted use transcript and school effectiveness study data files, five manuals have been produced for the NELS: 88 second follow-up, one to accompany each of the five public release files: student, dropout, parent, tracher, and school. Each manual furnishes the user with information and documentation about NELS: 58 and the specific public release data file.

While this manual 's intended for use with the second follow-up teacher component data, a data file user's manual was also produced and released to accompany each of the four public release data ciles of the base year and each of the four public reiease data files in the first follow-up surveys. Information on these publications and other documentation for NELS:88 is discussed in section 1.8 of this manual.

### 1.5 Overview

### 1.5.1 NCES's National Education Longitudinal Studies Program

The U.S. Department of Education's Nationic. Center for Education Statistics (NCES) is mandated to "collect and disseminate statistics and other data relatad to education in the United States" and to "conduct and publish reports on specific analyses of the meaning and significance of such statistics"
(Education Amendments of 1974-Public Law 93-380, Title V, Section 501, amending Part A of the General Education Provisions Act).

Consistent with this mandate and in response to the need for policy-relevant, time-series data on nationally representative samples of elementary and secondary school students, NCES instituted the National Education Longitudinal Studies (NELS) program. The genesal aim of the NELS program is to study the educational, vocational, and personal development of students at various grade levels, and the personal, familial, social, institutional, and cultural factors that may affect that development. The NELS program currently consists of three major studies: the National Longitudinal Study of the High School Class of 1972 (NLS-72); High School and Beyond (HS\&B); and the National Education Longitudinal Study of 1988 (NELS:88). Taken together, these studies represent the educational experience of youth from three decades--the 1970s, 1980s, and 1990s. Figure 1-1 illustrates the increasing number of issues that have become part of NCES's National Education Longitudinal Studies research agenda. A brie description of these studies follows.

### 1.5.2 The National Longitudinal Study of the 1970s: NLS-72

The first of the NELS projects, the National Longitudinal Study of the High School Class of 1972 (NLS-72), began in the spring of 1972 with a survey of a national probability sample of 19,001 seniors from 1,061 public, secular private, and church-affiliated high schools. The sample was designed to be representative of the approximately three million high school seniors enroiled in more than 17,000 schools in the spring of 1972. Each sample member was asked to complete a student questionnaire and a 69 -minute test battery. School administrators were also asked to supply survey data on each student, as well as information about the schools' programs, resources, and grading systems. Five follow-ups, conducted in 1973, 1974, 1976, 1979, and 1986, have been completed.

In addition to background information, the NLS-72 base year and follow-up surveys collected data on respondents' educational activities, such as schools attended, grades received, and degree of satisfaction with their educational institutions. Participants were also asked about work experiences, periods of unemployment, job satisfaction, military service, marital status, and children. Attitudinal information on self-concept, goals, participation in political activities, and ratings of their high schools are other topics for which respondents have supplied information.

### 1.5.3 High Sclirol and Beyond of the 1980s: HS\&B

The next major longitudinal study sponsored by NCES was High School and Beyond. HS\&B was initiated in order to capture changes that had occurred in education-related and more general social conditions, in federal and state programs, and in the needs and characteristics of students since the time of the earlier survey. Thus, HS\&B was designed to maintain the flow of education data to policymakers at all levels who need to base their decisions on data that are reliable, relevant, and current.

Base year data collection was conducted in the spring of 1980. Students were selected using a two-stage probability sample with schools as the first-stage units and students within schools as the second-stage units. Unlike NLS-72, HS\&B included cohorts of both tenth and twelfth graders. Since the base year data collection in 1980, four follow-ups of the HS\&B cohorts have been completed: one in the spring of 1982; one in the spring of 1984; one in the spring of 1986, and (for the sophomore cohort only) one in the spring of 1992.


The four NELS program cohorts (NLS-72 seniors, the HS\&B sophomores and seniors, and NELS:88 eighth graders) are displayed in Figure 1-2 according to their initial and subsequent survey years and their modal age at the time of each survey. As illustrated, NLS-72 seniors were first surveyed in 1972 at age eighteen and have been resurveyed five times since, with the last survey occurring in 1986, when these respondents were about thirty-two years of age. The HS\&B cohorts have been surveyed at points in time that would permit as much comparison as possible with the time points selected for NLS-72. NELS:88 is designed to fit into this larger analyticai scheme. The NELS: 88 first follow-up sophomore class of 1990 parallels the HS\&B sophomore class of 1980; similarly, the second follow-up senior class of 1992 will parallel the 1980 and 1982 HS\&B, and 1972 NLS- 72 senior classes. ${ }^{1}$

### 1.6 The National Education Longitudinal Study of 1988 (NELS:88): Overview

The base year of the National Education Longitudinal Study of 1988 (NELS:88) represented the first stage of a major longitudinal effort designed to provide trend data about critical transitions experienced by students as they leave elementary school and progress through high school and into postsecondary institutions or the work force. This study of the 1988 eighth-grade cohort collects data about educational processes and outcomes pertaining to student learning, predictors of dropping out, and the effects of schools on students' access to programs and equal opportunity to learn.

The first follow-up in 1990 provided the first opportunity for longitudinal measurement of the 1988 baseline sample. It also provided a comparison point to high school sophomores ten years before, as studied in HS\&B. The study captured the population of early dropouts (those who leave school between the end of eighth grade and the end of tenth grade), while monitoring the transition of the student population into secondary schooling. Freshening the NELS:88 sample to represent the tenth-grade class for 1990 makes trend comparisons with the HS\&B sophomore cohort possible.

The second follow-up took place in 1992, when most sample members entered the second term of their senior year. The second follow-up provides a culminating measurement of learning in the course of secondary school, and also collects information that will facilitate investigation of the transition into the labor force and postsecondary education after high school. Freshening the NELS: 88 sample to represent the twelfth-grade class of 1992 makes trend comparisons with the senior cohorts that were studied in NLS-72 and HS\&B possible. ${ }^{2}$ The NELS:88 second follow-up resurveyed students who were identified as dropouts in 1990, and identified and surveyed those additional students who left school after the first follow-up.

The third follow-up is occurring in 1994, when most sample members will be in postsecondary education or in the labor market. The Goals of the 1994 round are to provide data for trend comparisons

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with NLS-72 and HS\&B, and to continue cross-wave comparisons with previous NELS: 88 rounds. The third follow-up will permit researchers to assess the effect of eighth-grade and high school curricular experiences on postsecondary education choice. The third foilow-up will provide the means by which access of individuals with different backgrounds to quality educational institutions can be examined. The third follow-up will facilitate study of the influences of high school education experiences on postsecondary education and employment opportunities and choices. Labor force participation, postsecondary persistence, curricular progress, and family formation are further research topics which will be explored by the third follow-up. Additionally, the third follow-up will provide a basis for assessing how many dropouts have returned to school and by what route, and will measure the access of dropouts to vocational training programs and to other postsecondary institutions. A fourth follow-up will take place in 1997 or 1998.

### 1.6.1 NELS:88 Study Objectives

NELS:88's major features include the integration of student, dropout, school, parent, and teacher studies; the initial concentration on an eighth-grade student cohort with follow-up at two year intervals; the inclusion of supplementary components to support analyses of geographically or demographically distinct subgroups; and the design linkages to previous longitudinal studies and other current studies.

Multiple research and policy objectives are addressed through the NELS: 88 design. The study is intended to produce a general purpose data set for the development and evaluation of federal educational policy. Part of its aim is to inform decision makers, education practitioners, and parents about the changes in the operation of the educational system over time, and the effects of various elements of the system on the lives of the individuals who pass through it. Specifically, NELS: 88 focuses on a number of interrelated policy issues including: identification of school attributes associated with achievement; the transition of different types of students from eighth grade to secondary school; the transition of secondary students to postsecondary education or the work force; the influence of ability grouping and program type on future educational experiences and achievements; determinants of students' dropping out of the educational system; and changes in educational practices over time. One of the defining features of NELS: 88 is the extensive attention it gives to the role of parents. The second followup parent survey (the parent survey was also conducted in 1988) gathered data on the effect of parents' attitudes and behaviors on educational or career choices, financial preparation for postsecondary education, the correlates of active parental involvement in the school, and the parent's role in the educational success of their children. Appendix C provides an overview of some of the key policy issues of education research and the second follow-up student, dropout, and teacher items which are relaterl to them.

The NELS: 88 design enables researchers to conduct analyses on three principal levels: crosswave, cross-sectional at a single time point, and cross-cohort by comparing NELS: 88 findings to those of HS\&B and NLS-72. The first of these levels provides NELS: 88 with its primary objective: to serve the purposes of longitudinal measurement. The sampling and data collection designs give priority to maintaining and surveying a substantial number of base year sample members, as well as to sustaining overlapping but analytically distinct cohorts of sophomores and seniors. ${ }^{3}$ Users of NELS:88 data will be able to study the effect of a wide variety of factors on students' educational and professional attainment. The longitudinal data gathered from students, and augmented through parent, teacher, school administrator, and school record (for example, academic transcripts) accounts of studen's' progression

[^3]and development, will facilitate scrutiny of various facets of students' lives--their problems and concerns, their relationships with parents, peers, and teachers, and the characteristics of their schools--and permit examination of the impact of these factors on social, behavioral, and educational development.

The second analytic level within NELS:88 is cross-sectional. By beginning with a cross-section of 1988 eighth graders, following a substantial subsample of these students at two-year intervals, and freshening the 1990 and 1992 samples to obtain representative national cross-sections of tenth and twelfth graders, the study also provides a statistical profile of America's eighth graders, high school sophomores, and high school seniors.

Finally, NELS: 88 has been designed to provide researchers with data for drawing comparisons with previous NCES longitudinal studies. After the release of NELS: 88 first follow-up data, researchers were abie to conduct trend analyses with the 1980 sophomore cohort of HS\&B. With completion of the NELS:88 second follow-up, comparisons may be made among NELS:88, HS\&B, and NLS-72 senior cohorts. To facilitate cross-cohort comparisons, many of the content areas contained in the HS\&B base year survey were repeated in each wave of NELS:88, and data processing and file conventions have been kept consistent, to the maximum extent feasible, with HS\&B and NLS-72. For users specifically interested in conducting trend analyses of NLS-72, HS\&B and NELS:88 data, further information on content and design similarities and differences between these three studies is presented in Appendix D of the NELS: 88 Second Follow-Up: Student Component Data File User's Manual.

### 1.6.2 Base Year Study and Sample Design

The base year study design comprised four components: surveys and tests of students, and surveys of school administrators, parents, and teachers. A student questionnaire gathered information about basic background variables and a range of other topics including school work, educational and occupational aspirations, and social relationships. Students also completed a series of curriculum-sensitive cognitive tests to measure educational achievement and cognitive growth between eighth and twelfth grades in four subject areas--reading, mathematics, science, and social studies (history/government). A school administrator questionnaire was completed by school principals or headmasters. It gathered descriptive information about the school's teaching staff, the school climate, characteristics of the student body, and school policies and programs. One parent of each student was asked to respond to a parent survey intended to measure parental aspirations for children, family willingness to commit resources to children's education, the home educational support system, and other family characteristics relevant to achievement. Finally, selected teachers in two of the four subject areas completed a teacher questionnaire designed to collect data about school and teacher characteristics, evaluations of the selected students, course content, and classroom teaching practices.

In the NELS:88 base year, a two-stage stratified probability design was used to select a nationally representative sample of eighth-grade schools and students. Schools constituted the primary sampling unit; the target sample size for schools was 1,032 . A pool of $1,03 \angle$ schools was selected through stratified sampling with probability of selection proportionai to eighth-grade size and with oversampling of private schools. A pool of 1,032 replacement schools was selected by the same method. Of the 1,032 initial selections, 30 proved to be ineligible. Of the 1,002 eligible selections, 698 participated. An additional 359 schools (supplied by alternative selections available from the replacement pool) also participated, for a total school sample of 1,057 cooperating schools, of which 1,052 schools ( 815 public schools and 237 private schools) contributed usable student data. For 1,035 of these 1,052 schools, both student and school administrator data were received. In the NELS: 88 base year design, students were the secondary sampling unit. The second stage--student sampling--produced a random selection of 26,432
students among participating sampled schools, resulting in participation by 24,599 spring term 1988 eighth graders. ${ }^{4}$ On average, each of the participating schools was represented by 23 student participants. Additional information about the base year sample design is provided in the NELS: 88 Base Year Sample Design Report. ${ }^{5}$ Figure 1-3 lists the NELS: 88 survey components, instruments, and modal grades for the base year, first follow-up, and second follow-up.

### 1.6.3 First Follow-Up Core Study and Sample Design

The first follow-up of NELS:88 comprised the same components as the base year study, with the exception of the parent survey, which was not repeated in the $1: 990$ round. In addition, three new components--the dropout study, base year ineligible study, and school effectiveness study-were initiated in the first follow-up, and a freshened sample was added to the student component. As in the base year, students were asked to complete a questionnaire and cognitive test. The cognitive test was designed to measure tenth-grade achievement and cognitive growth between 1988 and 1990 in the subject areas of mathematics, science, reading, and social studies (iistory/geography/civics). The student questionnaire collected basic background information, and asked students about such topics as their school and home environments, participation in classes and extra-curricular activities, current jobs, their goals and aspirations, and opinions about themselves. Following the base year design, a school questionnaire was completed by school principals, and two teachers of each student were asked to complete a teacher questionnaire. First-time participants in NELS: 88 completed a new student supplement, containing basic demographic items which were asked in the base year but not repeated in the first follow-up. The first follow-up also surveyed and tested youths who had dropped out of school at some point between the spring term of the 1987-88 school year and the spring term of the 1989-90 school year. The dropout questionnaire collected information on a wide range of subjects, including reasons for leaving school, school experiences, absenteeism, family formation, plans for the future, employment, attitudes and selfconcept, and home environment.

The selection of students in the first follow-up was implemented in two stages. The first stage of sampling involved the selection of 21,474 students in the eighth-grade NELS: 88 sample in $1988 .{ }^{5}$ Because some sophomores in 1990 were not in the country or were not in the eighth grade in the spring term of 1988, the representative subsample of the eighth-grade cohort was augmented through a process called freshening. The goal was to provide a representative sample of students enrolled in the tenth grade in the 1989-90 school year. Freshening added 1,229 tenth graders (of whom 1,043 were found to be eligible and retained after final subsampling) who were not contained in the base year sampling frame.

Several components were added to the first follow-up to increase its analytic power. One of these enhancements, the base year ineligible (BYI) study, was added to the first follow-up in order to ascertain the 1990 school enrollment status and the 1990 NELS: 88 eligibility status of students whe were excluded from the base year survey due to a language barrier or physical or mental disability which precluded them

[^4]|  | BASE YEAR | FIRS' FOLLOW-UP | $\begin{aligned} & \text { SECOND } \\ & \text { FOLLOW-UP } \end{aligned}$ | $\begin{aligned} & \text { THIRD } \\ & \text { FOLLOW-UP } \end{aligned}$ | $\begin{aligned} & \text { FOURTH } \\ & \text { FOLLOW-UP } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Data collection: | spring term 1988 | spring term 1990 | spring term 1992 | spring 1994 | spring 1997 or 1998 |
| Grades included: | Grade 8 | modal grade $=$ sophomore | modal grade $=$ senior | H.S. +2 years | H.S. +5 or 6 years |
| Cohort: | students: questionnaire, tests | students, dropouts: questionnaire, tests | students, dropouts: questionnaire, tests, H.S. transcripts | all individuals: questionnaire | all individuals: questionnaire |
| Parents: | questionnaire | none | students, dropouts: questionnaire | none | none |
| Principals: | questionnaire | students: questionnaire | students: questionnaire | none | none |
| Teachers: | two teachers per student (taken from English, social studies, mathematics, or science) | students: two teachers per student (taken from English, social studies, mathematics, or science) | students: one teacher per student (taken from mathematics or science) | none | none |

FOURTH
from completing a questionnaire and cognitive test. Any eligible students were included in both the first and second follow-up.

In addition to the BYI study, the school effectiveness study (SES), designed to sustain analyses of school effectiveness issues, was conducted in conjunction with the first follow-up. The within-school student sample of 251 participating first follow-up high schools in the thirty largest metropolitan statistical areas was augmented to produce a probability sample of both schools and students within the framework of the primary longitudinal study.

### 1.6.4 Second Follow-Up Core Study and Sample Design

The NELS: 88 second follow-up repeats all components of the first follow-up study. In addition, the parent component is included once again in the second follow-up. Two new components-the transcript and course offerings components-were initiated in the second follow-up. The course offerings component was implemented as a part of the school effectiveness study. The transcript component was undertaken for sample members as described in section 1.6.5. Sample freshening was also implemented in the second follow-up to provide a representative sample of students enrolled in the twelfth grade during the spring term of the 1991-1992 school year.

Each student and dropout selected for the first follow-up was included in the second follow-up. From within the schools attended by the sample members, 1,500 twelfth-grade schools were selected as sampled schools. Of the 1,500 sampled schools, the full complement of component activities occurred in 1,374 schools. For students attending schools other than those 1,374 schools, only the student and parent questionnaires were administered. Retaining the entire first follow-up sample in the 1992 round provides an optimally efficient sample for the NELS: 88 second follow-up while satisfying researchers who are interested in maximizing the presence in the study of rare policy-relevant populations.

The student sample was then augmented throngh freshening at the NELS: 88 selecied schools, the aim of which was to provide a representative sample of students enrolled in the twelfth grade during the spring term of the 1991-92 school year. Freshening added 364 twelfth graders (of whom 243 were deemed eligible) who were not contained in the base year sampling frame, either oecause they were not in the country, or were not in the eighth grade in the spring term of 1988. Additional information about the second follow-up sample design is provided in Chapter III of this manual and in the forthcoming NELS: 88 Second Follow-Up Sample Design Report. Most in-school surve, sessions were held in the period from January through March 1992, though a few took place as late as June 1992. Dropout data collection occurred between January and October 1992. Figure 1-4 illustrates the longitudinal design of NELS:88.

As in the previous waves, students were asked to complete a questionnaire and cognitive test. The cognitive test was designed to measure twelfth-grade achievement and cognitive growth between 1988 and 1992 in the subject areas of mathematics, science, reading, and social studies (history/citizenship/ geography). The student questionnaire asked students about such topics as academic achievement; student perceptions and feelings about their curriculum and school; family structure and environment; social relations; and aspirations, attitudes, and values, especially as they relate to high school and occupational or postsecondary educational plans. The student questionnaire also gathered data about the family decision-making structure during the critical transition from secondary school to postsecondary education or the work environment. The student questionnaire contained a supplement for early graduates, the intent of which was to document the reasons for and circui stances of early graduatic $n$. If a student was

|  |
| :---: |
|  |
| BY - Base YCar |
|  |
| F2 = Second Follow.Up |
|  |
| BYTs $m$ Base Year Incligibles |
| FIFx = Firn Follow-Up Inelisiblea |
| F2I's = Socund Follow-Up Ineligibles |
| Fl frech a Firat Follow.Up Freabenod |
| F2 freah m Scoend Follow. Up Freshened |


Figure 1-4: Longitudinal Sample Design of NELS:88 (1988-1994)*


a first-time participant in NELS:88, he or she also completed a new student supplement, containing basic demographic items which were asked in the base year but not repeated in the second follow-up.

A school administrator questionnaire, as in the first follow-up, was completed by school principals or headmasters. In a departure from the base year and first follow-up teacher surveys, only one teacher, either a mathematics or science teacher, was asked to complete a questionnaire for each sampled student enrolled in these subject areas in a NELS: 88 sampled school.

The second follow-up, in addition to surveying students who were enrolled in school, surveyed and tested youths who had dropped out of school at some point between the spring term of the 1987-88 school year and the spring term of the 1991-92 school year. The dropout questionnaire collected information on a wide range of subjects, including reasons for leaving school, school experiences, absenteeism, plans for the future, employment, attitudes and self-concept, and home environment.

### 1.6.5 Second Follow-Up Design Enhancements

Two new components, the transcript and the course offerings components, were added to the NELS:88 second follow-up. These components provide archival data which describe the academic experience of high school students and the curricula offered by their schools. The complete high school transcript record was collected for 1) the contextual sample--students attending sampled schools in the spring of 1992; 2) all dropouts, dropouts in alternative programs, and early graduates, regardless of school affiliation; and 3) triple ineligibles enrolled in the twelfth grade in the spring of 1992, regardless of school affiliation. Triple ineligibles are sample members who were ineligible for the base year, first follow-up, and second follow-up surveys due to mental or physical disability, or language barrier. NELS: 88 course-taking data will provide not only a baseline against which future student outcome measures can be compared, but will illuminate trends when contrasted to the 1982 HS\&B high school transcript study, the 1987 National Assessment of Educational Progress (NAEP) transcript study, and the 1990 NAEP transcript study. The course offerings component provides curriculum data from second follow-up school effectiveness study schools through which school effects on student outcomes can be studied.

The school effectiveness study (SES) was added to the first follow-up to provide a probability sample of tenth-grade schools, with a sizable and representative within-school sample of students, through which longitudinal school-level analysis (comparable to 1980-82 HS\&B sophomore cohort analysis) could be conducted. In the first follow-up school effectiveness study, permission to conduct the study was gained from 251 schools and 248 of those schools were final SES participants. The second follow-up school effectiveness study returned to 247 of the 251 cooperating first follow-up SES schools, conducting freshening on both longitudinal and SES sample members, and selecting additional students from the pool including students who transferred into the school since the 1989 selection of SES students. The second follow-up school effectiveness study was enhanced by the addition of archival data collected by the new course offerings component, and was further augmented by the administration of free response science and mathematics cognitive test items in SES schools.

### 1.7 NELS:88 Sponsors

The NELS: 88 sponsor, the U.S. Department of Education's National Center for Education Statistics (NCES), provided federal agencies, states, and educational institutions with an opportunity to expand the scope of the base year, first follow-up, and second follow-up studies and enrich them through a variety of means. Enhancements sponsored by various groups included: sample supplements for states
to provide representative state samples, oversamples of specific student groups, supplemental questions for various data coilection instruments, and supplemental questionnaires.

### 1.7.1 Sample Supplements and Augmentations

Sample supplements and augmentations for the second follow-up were sponsored by various sources. The National Science Foundation (NSF) sponsored the core study teacher component, while NCES funded administration of the teacher survey in the school effectiveness study. The U.S. Department of Education's Office of Bilingual Education and Minority Languages Affairs (OBEMLA) provided funds in the base year for oversampling Hispanic and Asian-Pacific Islander students, and for disproportionately retaining Hispanic, Asian-Pacific Islander, and American Indian students in the first follow-up. The school effectiveness study (SES) of the second follow-up was begun in the first followup with funds from the MacArthur Foundation and from NCES. NCES also sponsored the follow-back study of excluded students (FSES), a continuation of the base year ineligible study of the first follow-up, which included 303 base year sample members who were ineligible to participate in the base year or first follow-up surveys. For each wave of NELS:88, all survey instruments and cognitive tests were administered to the core study (which included the OBEMLA oversample) and augmentation samples in an identical fashion; some by personal interviews, and others by telephone.

### 1.7.2 Instrument Supplements

The NELS:88 second follow-up instruments were supplemented in various ways by federal agencies. The National Science Foundation (NSF) sponsored supplemertal mathematics and science items on the student questionnaire and free response science and mathematics items on the school effectiveness study cognitive test. The U.S. Department of Education's Office of Bilingual Education and Minority Languages Affairs (OBEMLA), added questions about minority language use patterns and bilingual programs. Appendix A contains information on related NELS: 88 enhancements and state augmentations, as weli as data from other education studies which se available through NCES.

### 1.8 NELS:88 Data and Documentation

NELS: 88 base year, first follow-up, and second follow-up data are available in both public use and restricted use versions on both magnetic tape and on compact disc (CD-ROM). While this manual is specifically designed for use with the public release files, it is also appropriate for use with the restricted data.

Because multilevel microdata (that is, individual-level data from multiple, linkable sources) carries with it some risk of statistical disclosure of institutional or individual identities, the NELS: 88 data have been extensively analyzed to determine which iterns of information, used alone, in conjunction with other key variables, or in conjunction with public external sources such as school universe files, have significant disclosure potential. Variables that were found to pese significant disclosure risks were suppressed or altered to remove or substantially reduce such risks. For example, in some cases, continuous variables have been recast as categorical variables, $\mathrm{o}^{\circ}$. fine-grained categorical variables have been more grossly recategorized.

In a few instances, data elements have been suppressed or changed. Because of this, a particular school or individual student might be characterized in terms of a certain variabie on the resiricted use version of the NELS: 88 data, but be coded to missing on the public files, coded to an adjacent response
category, or included in a code which collapsed two or more response categories. These suppressions and recodes have been clearly labelled in the codebooks included in each data file user's manual.

While the extremely high value that is placed on confidentiality--not only by federal statute, but also by NCES and contractor standards--justifies these alterations of the data, it is recognized that some of these protections against disclosure may at times reduce the analysis potential of certain variables in the data set. For example, when only ranges of percentages are given for a variable, threshold points that may be important for some analyses may be obscured, or nonlinearities in relationships hidden. No matter how thoughtfully continuous variables are transformed into categorical form, different cut points for the categories may be desirable, depending on one's particular analytic purposes. While most suppressed data will have only a negligible effect on most analyses, there are times when the suppressed information is critical. For this reason, NCES also makes restricted use data files available to qualified researchers with a proven need for the data in its restricted use form. To obtain the restricted use data, it is necessary for an organization to obtain a licensure agreement from NCES. The agreement must be signed by the principal investigator and by someone authorized to commit the organization to the legal requirements. In addition, each professional or technical staff member with access to the data must sign and have notarized an affidavit of nondisclosure. Refer to section 7.3.2 for instructions for obtaining access to the NELS: 88 restricted use data files.

### 1.8.1 Base Year Jata Tapes and Documentation

Four public release tapes were produced for the NELS: 88 base year study, one for each study component--the student, school, parent, and teacher. A data file user's manual was produced for each of the public release data tapes. ${ }^{7}$ Additional forms of documentation produced include the NELS:88 Base Year Sample Design Report which assesses the sampling procedures for the base year survey. ${ }^{8}$ The Psychometric Report for the NELS: 88 Base Year Test Battery gives an in-depth description of the rationale, development, and statistical properties of the eighth-grade cogntive test battery. ${ }^{9}$ The NELS: 88 Base Year Final Technical Report provides detailed documentation of the methodology of the survey. ${ }^{10}$ Finally, Quality of the Responses of Eighth-Grade Students in NELS: 88 documents the reliability and validity of student responses. ${ }^{11}$ A number of additional NELS:88 analysis reports and special tabulations are available from NCES. Information on published and planned reports and tabulations is provided in Appendix B.

### 1.8.2 First Follow-Up Data Files and Documentation

Four public release data files were produced for the NELS: 88 first follow-up, one for each study component--the student, dropout, school, and teacher surveys. As with the base year data files, a data

7 Ingels, S.J.; Abraham, S.Y.: R=ق̈rıski, K.A.; Karr, R.; Spencer, B.D.; Frankel, M.R. March 1990; NCES 90-464, 90-466, 90-482 (ERIC ED 322-223), 90-484 (ERIC ED 322-222).
${ }^{8}$ Spencer, B.D.; Frankel, M.R.; Ingels, S.J.; Rasinski, K.A.; Tourangeau, R. August 1990; NCES 90-463, ERIC ED 325-502.

9 Rock, D.A., and Pollack, J.M. April 1991; NCES 91-468, ERIC ED 334-241.
10 Ingels, S.J.; Rasinski, K.A.; Frankel, M.R.; Spencer, B.D.; Buckley, P.; 1990; Chicago: NORC.
11 Kaufman, P.; Hasinski, K.A.; Lee, R.; West, J. September 1991; NCES 91-487, ERIC ED 339-722.
user's manual was provided for use with each public release first follow-up data file. ${ }^{12}$ The student data file user's manual encompasses both the 1988 and 1990 waves of the study.

Other first follow-up documentation, including an assessment of sampling and the psychometric properties of the cognitive tests are reported in the NELS: 88 First Follow-Up Final Technical Report. ${ }^{13}$ Special reports and tabulations based on first follow-up findings have either been published or are in preparation at this time. These reports, and their estimated release dates, are listed in Appendix B.

An electronic codebook released in the spring of 1993 is housed on CD-ROM and includes public use student, school, and teacher data from the base year and first follow-up waves of NELS:88. Also included in the first follow-up electronic codebook released on CD-ROM are public use data from the base year parent survey and dropout data from the first follow-up. The electronic codebook is MS-DOS based and menu driven. This on-line codebook system allows PC or PC-compatible computer users to:

- search a list of relevant variables based on key words or variable names;
- view frequencies for each variable;
- view question text;
- write SAS or SPSS control card files which can be used to construct a data system file; and,
- generate a codebook of selected variables.

Documentation includes an instruction guide to codebook operation and a technical appendix which outlines computer system requirements for codebook use.

### 1.8.3 Second Follow-Up Tapes, Electronic Codebook on CD-ROM, and Documentation

Five user's manuals have been produced for the NELS: 88 second follow-up public release files, one to accompany each of the following components: student, dropout, parent, teacher, and school. Each manual furnishes the user with general information and documentation both about NELS:88 and a specific public release data file. Although the five user's manuals are written for use with the public release data files, they may also be utilized with the restricted use files. Additional manuals will be produced for use with the transcript and school effectiveness study restricted use data files.

The second follow-up magnetic tapes and ECB/CD-ROM comprise all components of the second follow-up survey, as well as updated base year and first follow-up files. The student cognitive test scores have been updated for the second follow-up release of the base year, first follow-up, and second followup files, and the ECB features windows with both weighted as well as unweighted frequencies and percentages. A user's guide is available for the ECB and CD-ROM products.

[^5]Other second follow-up restricted data files, such as the high school transcript survey, the school effectiveness study (SES), and the early graduate supplement, also appear on CD-ROM but not in the ECB format. These files can be downloaded to floppy diskette or hard drive on a PC, and/or uploaded to mainframe or other machines. The files can be converted to systems files for use with standard statistical software packages. Chapter VII of this manual contains additional information on the magnetic tape and CD-ROM releases.

Additional forms of second follow-up documentation, including an in-depth assessment of sampling and non-sampling error, the sampling design, the psychometric properties of the cognitive tests, and various analysis reports are planned. These reports, and their estimated release dates, are listed in Appendix B.

## II. Data Collection Instruments

This chapter provides a brief description of the survey instruments and cognitive tests used in the NELS:88 second follow-up. The data collection instruments for the second follow-up were similar in content and form to those utilized in the prior waves. The instruments consisted of a teacher, student, dropout, parent, and school administrator questionnaire, and cognitive tests for students and dropouts. The new student supplement, added in the first follow-up to elicit demographic information from newly freshened students, was again administered in the second follow-up. An early graduate supplement was added for students who graduated from high school before their in-school data collection session in the spring of 1992.

Instrument development was guided by the research objectives of NELS:88. Questionnaires were designed to meet the longitudinal goals of the study, and items were chosen based on their utility in predicting or explaining future outcomes as measured in the second follow-up or later survey waves. All of the questionnaires employed in the base year, first follow-up, and second follow-up surveys were framed to provide continuity and consistency with earlier NCES education longitudinal studies, as well as to address new areas of policy concern and to reflect recent directions in theory. Where appropriate, NELS:88 drew test and questionnaire content from NLS-72, HS\&B, and other NCES studies, such as the National Assessment of Educational Progress (NAEP) and the Schools and Staffing Study (SASS), to ensure a common standard of measurement that would permit comparisons with other important data sources, and maximize the utility of NELS:88 data. For example, NELS:88 mathematics tests were designed so that NELS:88 and NAEP test scores can be equated, and so that HS\&B and NELS:88 mathematics test results can be equated as well. Appendix E of the NELS: 88 Second Follow-Up: Student Component Data File User's Manual contains an outline of the items which overlap between the NELS:88 base year, first follow-up, and second follow-up student questionnaires, the NLS-72 base year student questionnaire, and the base year HS\&B senior cohort student questionnaire.

A field test of the NELS:88 second follow-up conducted in 1990 and 1991 examined survey instruments and procedures and played a key role in instrument development. The second follow-up field test included six survey components: the school administrator, student, the cognitive test battery, dropout, and parent surveys, and the transcript component. ${ }^{1}$ Upon completion of field test data collection, the information gathered was used to inform planning for the main study. Analysis of field test data was also used to improve the measurement properties of test and questionnaire items, as well as to identify items which needed to be modified or deleted for reasons of instrument length or item format. A detailed description of the second follow-up field test can be found in the Field Test Report: National Education Longitudinal Study of 1988 Second Follow-Up. ${ }^{2}$

Because of the similarity between the second follow-up documents and the base year and first follow-up instruments, the content areas of the base year and first follow-up questionnaires are not described in this manual. However, Appendix E of the NELS: 88 Second Follow-Up: Student Component Data File User's Manual provides a comparative overview of the items used in the base year and first follow-up student and dropout questionnaires, and identifies differences in and ad: ions to thematic areas in the second follow-up survey instruments. Appendix C of this manual provides an overview of the

[^6]content areas of the second follow-up student and teacher instruments. Since longitudinal data users may benefit from being able to take into account the data that will be collected in 1994, a description of the NELS:88 third follow-up questionnaire topic areas can be found in Appendix N of the NELS: 88 Second Follow-Up: Student Component Data File User's Manual.

### 2.1 Teacher Questionnaire

The NELS: 88 teacher component was designed to provide teacher information that can be used to analyze the classroom and teacher influences on NELS: 88 students, including their effect on longitudinal student outcomes. The design of this component does not provide a stand-alone analysis sample of teachers, but instead permits specific teacher characteristics and practices to be related directly to the learning context and educational outcomes of sampled students. The teacher questionnaire is a critical instrument for investigating the student's specific learning environment.

In the second follow-up, teachers were asked to respond to the questionnaire items in relation to a specific list of sampled students enrolled in their classes. A thitty-minute questionnaire was collected for only one of the two cognitive test subjects, mathematics or science, if the student was enrolled in a class in one of the subjects. In the base year, either a mathematics or science teacher was surveyed for each student. In the second follow-up, the subject area of the teacher report collected for students who were enrolled in both mathematics and science was the same as the base year subject area. However, if the student was enrolled in only one of the subject areas in the second follow-up, the mathematics or science teacher was surveyed regardless of whether it was a mathematics or science teacher who was surveyed for the student in the base year.

The teacher questionnaire attempts to illuminate questions of the quality, equality, and diversity of educational opportunity by obtaining information in the following four content areas:

- Teacher's assessment of the student's school-related behavior and academic performance, educational and career plans and goals. Respondents completed this section with respect to the sample members they instructed in a particular subject matter.
- Information about the class the teacher taught to the sample member (e.g., track assignments, instructional methods, homework assignments, and curricular contents). In this section of the instrument, classroom topic coverage ("Opportunity to Learn") items have been articuiated with the cognitive tests subjects.
- Information about the school social climate and organizational culture (e.g., teacher autonomy, participation in determining school policy, and relationships with the principal).
- Information about the teacher's background and activities (e.g., academic training, subject areas of instruction, years of teaching experience, and participation in professional growth activities).


### 2.1.1 Abbreviated Teacher Questionnaire

Near the close of the data collection period an abbreviated version of the second follow-up teacher questionnaire was administered over the telephone to teachers for whom a questionnaire had not been collected or for a total of 8.2 percent of the teacher sample. The shortened version of the original
instrument contained selected critical items of the full-length version of the questionnaire and other key policy-relevant items. Appendix $G$ lists the items included in the abbreviated teacher questionnaire.

### 2.1.2 Adapting the Teacher Questionnaire for Telephone Administration

Because the teacher data were collected through self-administration and telephone administration, a number of steps were taken in the second follow-up to minimize mode effects. Interviewers were trained to adapt the questions to make sense when read over the telephone. Additionally, teachers were asked to read along in the questionnaire during the telephone interview if they had a copy of the selfadministered version of the questionnaire available.

### 2.2 Relationship Between the Teacher Instrument and Other Second Follow-Up Instruments

The data collected by the teacher instrument is contextual data against which student outcomes and characteristics can be measured. The data collected by the teacher instrument does not comprise a stand-alone, generalizable data set. Researchers should use the teacher reports in conjunction with the data collected by the student and dropout questionnaires and cognitive tests. Like the teacher component, the school administrator survey also provides contextual data intended to be used with student data to facilitate measurement of student outcomes.

### 2.3 Student Questionnaire and Cognitive Tests

Sample members who attended school during the spring term of the 1991-92 school year were administered a student questionnaire, either at an in-school or off-campus survey session. Sample members administered a student questionnaire also included: those identified as dropouts at some earlier time but who returned to and remained in school during the spring term of 1992; and students who had left school but had already passed the General Educational Development test (GED) or had obtained some other equivalency certification. The sixty-minute, self-administered questionnaire collected information on a wide range of topics, including students' background, language use, home environment, perceptions of self, occupational or postsecondary educational plans, jobs and household chores, school experiences and activities, work, and social activities. Information collected by the second follow-up student questionnaire supplies a baseline for the study of the NELS: 88 cohort's transition to postsecondary education or entry into the labor market. The second follow-up student and dropout questionnaires were available in both English and Spanish. ${ }^{3}$

In addition to the student questionnaire, students completed a series of cognitive tests which were also administered at their in-school or off-c mpus survey sessions. The combined tests covered four subject areas and included 116 items to be completed in 85 minutes. The cognitive tests are briefly described below:

[^7]- Reading Comprehension (21 questions, 21 minutes)

This subtest contained five short reading passages or pairs of passages, with three to five questions about the content of each. Questions encompassed understanding the meaning of words in context, identifying figures of speech, interpreting the author's perspective, and evaluating the passage as a whole.

- Mathematics (40 questions, 30 minutes)

Test items included word problems, graphs, equations, quantitative comparisons, and geometric figures. Some questions could be answered by simple application of skills or knowledge, others required the student to demonstrate a more advanced level of comprehension and/or problem solving.

- $\quad$ Science ( 25 questions, 20 minutes)

The science test contained questions drawn from the fields of life science, earth science, and physical science/chemistry. Emphasis was placed on understanding of underlying concepts rather than retention of isolated facts.

- History/Citizenship/Geography (30 questions, 14 minutes)

American history questions addressed important issues and events in political and economic history from colonial times through the recent past. Citizenship items included questions on the workings of the federal government and the rights and obligations of citizens. The geography questions touched on patterns of settlement and food production shared by other societies as well as our own.

NORC's subcontractor, the Educational Testing Service (ETS), developed the cognitive test battery for the second follow-up. Six forms of the cognitive test battery were produced in the second follow-up, each comprising a different combination of mathematics and reading difficulty levels. Each sample member's test form was determined by his or her scores on the base year and/or first follow-up mathematics and reading tests; freshened students and first follow-up nonrespondents received the intermediate version of the second follow-up cognitive test battery. The purpose of the multilevel design of the second follow-up cognitive test battery was to guard against ceiling and floor effects which may occur when testing must span four years of schooling. This adaptive approach tailors the difficulty of the reading and mathematics tests to the ability of the respondent, thereby leading, given limitati ns in testing time, to a more accurate measurement than a single level design.

Psychometric properties of the cognitive tests are discussed in the forthcoming NELS: 88 Second Follow-Up Final Psychometric Report, the forthcoming NELS: 88 First Follow-Up Final Technical Report, and the Psychometric Report for the NELS:88 Base Year Test Battery," all obtainable from NCE ${ }^{\text {r. }}$.

### 2.4 Dropout Questionnaire

During the data collection period from January through October 1992, a dropout questionnaire was administered to sample members who, based on data gathered through administration of a status

[^8]screener, were not in an academic program leading to a high school diploma and had not received a GED by the spring of 1992. The dropout questionnaire collected data about the last school attended by the sample member and the school's climate, easons for leaving school, and actions school personnel, parents, and friends took when the respondent stopped going to school. Respondents also reported on their likelihood of returning to and graduating from high school, and described their current activities, employment history, and future plans. The hour-long, self-administered questionnaire was normally ccmpleted with an NORC interviewer present, at either a group or single survey session and was available in both Engiish and Spanish. However, in some cases the dropout questionnaire was administered as a telephone interview.

In addition to the dropout questionnaire, an 85-minute cognitive test battery was also administered to dropouts when possible. Because of the difficulty in collecting test data from dropouts, and because data from many dropouts was collected in telephone interviews which preclude testing, the NELS: 88 second follow-up achieved a comparatively low ( 41 percent) cognitive test completion rate for dropouts.

The dropout questionnaire was designed to facilitate comparisons with the NELS:88 second follow-up student questionnaire, the first follow-up dropout questionnaire, and the HS\&B 1982 dropout questionnaire. This item overlap with the student questionnaire permits users to contrast factors such as school environment, family life, aspirations, and self-perceptions of students with the responses of dropouts. The overlap of 1982 and 1992 dropout items facilitates comparison of contemporary dropouts with those of a decade before. 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. To facilitate the use of school contextual data with dropout data, on the restricted use CD-ROM delivery of the second follow-up data, a link is provided between a dropout and the first or second follow-up school the dropout last attended.

### 2.5 Adapting Student and Dropout Questionnaires for Telephone Administration

To adapt the second follow-up student and dropout questionnaires for telephone interviewing, two abbreviated versions of the instruments were administered during the final weeks of data collection. Adaptation of the student and dropout questionnaires for telephone administration was guided by the need to preserve each question's original meaning while wording each question so that it made sense when read aloud. One abbreviated version of the student and dropout questionnaires excluded a small number of questions which did not lend themselves to being read aloud. A second abbreviated version of the questionnaires was administered to sample members who explicitly refused to complete the full length instrument and consisted mainly of locator information and key items. The mode of administration for the abbreviated instruments was primarily telephone interview; however, a small percentage of abbreviated questionnaires were completed by personal interview.

### 2.6 New Student Supplement

Because basic demographic information collected by the base year student questionnaire were not collected again in the first and second follow-up student questionnaires, this information was collected in a new student supplement for students who participated in the study for the first time in the second follow-up. The self-administered supplement was available in inth English and Spanish and took approximatcly 15 minutes to complete. It contained demographic questions such as birthdate, sex, family socioeconomic status, and race/ethnicity about students and their families.

### 2.7 Early Graduate Supplement

NELS:88 participants who graduated fro. high school prior to data collection in the spring term of 1992 completed the second follow-up early graduate supplement to the student questionnaire. The intent of this supplement was to document the reasons for and the circumstances of early graduation, the adjustments required to finish early, and respondents' activities compared with those of other school survey members. The items for the second follow-up early graduate supplement were modeled on those used in the HS\&B sophomore cohort early graduate supplement administered in the HS\&B first follow-up in 1982.

### 2.8 School Administrator Questionnaire

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. This school information describes the overall academic climate in terms of specific school practices and policies as well as enrollments and educational offerings. The information obtained through the school administrator questionnaire provides supplemental data to that provided by the student questiomaire so that student outcomes can be considered in terms of school measures.

In the second follow-up, a self-administered, forty-five minute school administrator questionnaire was completed by the school principal, headmaster, or other knowledgeable school official designated by the school administrator of NELS:88 schools.

The questionnaire was divided into five content areas as described below:

- General school characteristics, such as grade span, school and tweifth-grade enrollment sizes, and school control and demographic characteristics. In addition, questions were asked about college preparatory services and vocational programs offered to twelfth graders.
- General student characteristics of the twelfth-grade class, including average daily attendance rates, ethnic and racial composition, percentage of students with limited English proficiency, and numbers of students receiving special school services.
- Teaching staff charesteristics encompassing such areas as the number of full-time and part-time faculty, departmentalization of faculty, salary levels, and evaluation of teachers.
- School policies and programs including requirements for minimum competency and proficiency tests, and programs for language minority students.
- Schooi governance and climate such as administration practices, school reforms, types of parental involvement, student behavioral problems within school, and areas of principal's control.

The questionnaire was designed so that the first four sections could be answered either by the school principal or by a designee who was able to provide the requested information. Only the principal could answer the last section which asked for his or her subjective opinions regarding the school environment.

### 2.9 Parent Questionnaire

The parent questionnaire was designed to collect infor ration from parents about factors that influence educational attainment and participation. The objective of the parent questionnaire was to provide data that could be used primarily in the analysis of student and dropout behaviors and outcomes, and only secondarily as a data set by itself. The questions focused on family background and socioeconomic characteristics, and on the character of the home educational support system. In addition, the parent instrument collected data related to parental behaviors and circumstances with which the student or dropout may not be familiar, such as parental education and occupation. The questionnaires also contained more sensitive questions about income, postsecondary educational costs and financial aid decisions, and religious affiliation. English and Spanish language versions of the questionnaire were made available to parents in both the base year and second follow-up.

In the second follow-up, a self-administered forty-minute questionnaire was mailed to parents of both students and dropouts. One focus of the second follow-up questionnaire was postsecondary educational costs and financial aid decisions. Because this information was not available to most parents until the spring of 1992, the parent questionnaire was mailed to parents in Mey 1992. The instructions in the questionnaire and accompanying letter directed the most knowledgeable parent or guardian, defined as the parent who knows the most about the student's or dropout's educational activities and related behaviors, to complete the questionnaire. In accordance with this definition, the respondent was self-selected.

## III. Sample Design and Implementation; Survey Error Assessment

This chapter describes the design and procedures used for selecting schools and students into the NELS:88 base year, first follow-up, and second follow-up samples and for selecting the second 'sllow-up teacher sample. It provides information on the calculation of sample weights and the relative efficiency of the sample design. This chapter also provides information about procedures used to adjust sample weights for nonresponse and about the effect of unit and item nonresponse and other potential sources of bias on estimates.

### 3.1 NELS:88 Sample Design

The following section describes the sample design of NELS:88, from its base year inception through the first and second follow-ups. Beginning from a straight forward two-stage stratified sample, the complexities of the NELS:88 sample design have grown exponentially with each subsequent wave.

### 3.1.1 Base Year Sample Design

The NELS: 88 base-year survey employed a two-stage, stratified sample design, with schools as the first-stage unit and students within schools as the second-stage unit. Within each stratum, schools were selected with probabilities proportional to their estimated eighth-grade enrollment to achieve virtual self-weighting. In addition, schools were oversampled in certain special strata so that policy-relevant subgroups would be adequately represented in the sample. Within each school approximately 26 students were to be randomly selected (typically, 24 regularly sampled students and two, on average, OBEMLA-supplement Hispanic and Asian/Pacific Islander oversampled students). In schools with fewer than 24 eighth graders, all eligible students were selected. Because of the incidence of small schools in the NELS:88 sample, the average--within school sample size for the base year--was 25 students (or 23 participating students). From a national frame of about 39,000 schools with eighth grades, a target sample size of 1,032 schools was set. Some 1,052 schools-- 815 public and 237 private--participated and provided usable eighth-grade student data.

NORC's sampling frame was the school database compiled by Quality Education Data, Inc. (QED) of Denver, Colorado. The QED list contained information about whether a school was urban, suburban, or rural. NORC used this information for stratification purposes. The QED list did not at that time contain information about the racial/ethnic composition of individual public schools usable for the NELS:88 sampling frame. Racial/ethnic composition data were obtained from Westat, Inc. in its capacity as an NORC subcontractor for the NELS:88 base year ctudy. As part of their work on the National Assessment of Educational Progress (NAEP), Westat had obtained data from the Office of Civil Rights (OCR) and from other sources (e.g., district personnel) that identified those schools with a minority enrollment of greater than 19 perceni. Use of this data set facilitated the explicit stratification and allocation of schools with very large percentages of black or Hispanic students. Stratification information on whether a school was public, Catholic (private), or other private was obtained from the QED list and lists of private schools. Readers who desire more detail on the base year sample desigri should consult the NELS: 88 Base Year Sample Design Report.

### 3.1.2 First Follow-Up Sample Design

There were three basic objectives for the NELS: 88 first follow-up sample design. First, the sample was to include approximately 21,500 students who were in the eighth-grade sample in 1988 (including base year nonrespondents). This longitudinal cohort was to be distributed across 1,500
schools. Second, the sample was to constitute a valid probability sampie of all students currently enrolled in the tenth grade in the 1989-1990 school year. This entailed freshening the sample with students who were tenth graders in 1990 but not in the eighth grade during the 1987-1988 school year. Third, the first follow-up was to include a sample of students who had been deemed ineligible for base year data collection (because physical, mental, or linguistic barriers prevented them from participating) so that those able to take part could be added to the first follow-up student sample, and demographic and school enrollment information could be obtained for them.

Longitudinal Cohort. The general sample design strategy for this component of the sample involved subsampling students selected for the base year with non-zero probabilities related to characteristics of their 1990 schools. Base year students who had dropped out of school between 1988 and 1990 were subsampled with certainty (their probabilities of selection were set equal to one). Base year students attending school in 1990 were subsampled with probabilities related to the number of other base year students attending the same school. Base year students who were reported to be attending a school with at least 10 other base year students were sampled with certainty. All other students were sampled with probabilities greater than zero, but less than one.

Including nonrespondents, the NELS:88 base year sample comprised 26,432 students. Of these, 96 were deemed out of scope for the 1990 first follow-up (including students who had died or moved out of the United States). Among the remaining 26,336 students, 348 were found to have dropped out of school; all of these students were selected into the first follow-up with certainty (probability of selection equal to one). ${ }^{1}$

Distribution of Students in Schools. It was determined that the remaining pool of 25,988 students were distributed among 3,967 schools. ${ }^{2}$ As had been anticipated, the distribution of these students among schools was highly skewed. It was found that approximately 75 percent of the students ( 19,568 of 25,988 ) were attending approximately 23 percent ( 908 of 3,967 ) of the schools; each of these schools included at least 11 base year students. All of these 19,568 students were included in the first follow-up with certainty. The remaining 6,420 students were distributed among 3,059 schools with 10 or fewer members of the base year sample. Their sampling probabilities for the first follow-up depended on the number of base year students the school contained. The efficiency of this design relative to one with no subsampling at all was 66.5 percent. ${ }^{3}$ These schools--or, more precisely, clusters of base year students--were subsampled to achieve the final NELS: 88 first follow-up school sample, after the conclusion of the 1989 spring term. There were 1,468 schools ( 1,506 student clusters) selected.

[^9]However, the schools at which the first follow-up teacher survey and school administrator survey were conducted were a specific subset of the NELS: 88 schools. This subset was the schools selected via their student populations during the subsampling of the eighth-grade cohort after the spring term of 1989, if and only if a NELS:88 student remained enrolied in the school when student data collection was conducted during the spring of 1990 .

### 3.1.3 First Follow-Up Sample Enhancements and Modifications

Freshened Sophomore Sample. The second sampling objective was to create a valid probability sample of sturients enrolled in tenth grade in the 1989-1990 school year; this goal was achieved by a process called freshening. The freshening procedure was carried out so that students who were not enrolled in the eighth grade in the U.S. in 1988 had a chance of being selected for the sample.

The freshening process could yield zero, one, or more than one new sample member in a given school. A total of 1,229 new students were added to the tenth-grade sample-on average, just less than one student per school. Some of these freshened students were dropped in the subsampling process described below either because they themselves were not included in the subsample or because the base year student to whom they were linked was not included. Some 1,043 students selected through the freshening procedure remained in the final first follow-up sample.

Subsampling the Eighth-Grade Cohort and Freshened Sophomore Samples. After the initial selection of the longitudinal cohort, the combined longitudinal-freshened sample was further subsampled. The students dropped from the first follow-up as a result of subsampling were also excluded in the second follow-up. Two categories of sample members were subsampled: 1) students who had transferred out of the school from which they had initially been selected for the first follow-up sample; and 2) first follow-up nonrespondents who were classified as potential dropouts. NORC selected a 20 percent subsample of transfer students and a 50 percent sample of "potential dropouts." Table 3.1.3-1 lists the first follow-up sample by race and meais of entry into the sample.

Sample of Base Year Ineligibles. The NELS:88 base year sample excluded students for whom the NELS: 88 survey instruments would be unsuitable (i.e., students with a mental disability and students who are not proficient in English) and students whose physical or emotional problems would have made participation in the survey unduly difficult. A final sample of 653 of these students were selected for a followback study of these students. The eligibility status of these students was reassessed, their school enrollment status and basic demographic characteristics were determined, and student questionnaire data were obtained from those deemed able to complete a questionnaire. Further detail on sample eligibility in the base year is provided in the NELS:88 Base Yenr Sample Design Report and in the forthcoming NELS: 88 First Follow-Up Final Technical Report. Chapter III of the NELS: 88 Second Follow-Up: Student Component Data File User's Manual includes additional detail about sample freshening, student subsampling, and base year sample ineligible, students.

### 3.1.4 Second Follow-Up Sample Design

There were five basic objectives for the NELS: 88 second follow-up sample design. First, the sample was to constitute a valid probability sample of all students enrolled in the twelfth grade in the 1991-1992 school year. This entailed freshening the sample with students who were twelfth graders in 1992 but were not in the eighth grade in the U.S. in the 1987-88 school year, just as the first follow-up sample had been freshened in 1989 to achieve a 1990-91 representative sample of sophomores. Additionally, it was necessary to reassess the eligibility status of selected students found in previous

Table 3.1.3-1
First follow-up sample by race breakdown*

|  | First Follow-Up <br> Initial Selections | Freshened <br> Sample | Dropped in final <br> Subsampling $^{\mathbf{b}}$ | Final <br> Sample |
| :--- | ---: | :---: | :---: | ---: |
| All | 21,474 | 1,229 | 1,997 | $20,706^{\circ}$ |
| Asian/Pacific Islanders | 1,367 | 89 | 141 | 1,315 |
| Hispanics | 2,828 | 246 | 323 | 2,751 |
| American Indians | 278 | 28 | 32 | 274 |
| Blacks | 2,265 | 235 | 280 | 2,220 |
| Whites | 14,349 | 554 | 1,061 | 13,842 |
| Missing/Refused | 387 | 77 | 160 | 304 |

* Figures in this table represent the first follow-up constructed variable frequencies. This variable-race identified at the time of sampling-is not the same variable included on the data files and reported in the codebooks. This variable was used because it was the only race variable that was constructed for initial sample members dropped in final subsampling.
${ }^{\text {b }} 1,821$ members of the eighth-grade longitudinal cohort and 169 freshened tenth graders were dropped in Phase 3 subsampling. In addition, 7 members of the eighth-grade longitudinal cohort were discarded because they were selected in error during the base year.
- 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 on page 26 of section 3.1.2 of the Second Follow-Up: Student Component Data File User's Manual, under the subheading "Subsampling the Eighth-Grade Cohort and Freshened Sophomore Samples."
waves to be ineligible, and to include them in the cohort if they were determined to be eligible for the second follow-up. Second, to continue the examination of the dropping out phenomenon, dropouts were to be retained with certainty. Third, it was highly desirable for policy analysis purposes to retain the maximum number of Hispanics, Asians, and American Indians from the first follow-up sample. Fourth, to minimize nonresponse bias first follow-up nonrespondents were to be retained with certainty. Fifth, the sample was to be clustered in 1,500 schools from which contextual data-including school administrator, teacher, and transcript data--would be collected. It was hoped that these goals could be achieved with minimal loss to both sample efficiency and effective sample size.

Longitudinal Cohort. When second follow-up tracing of cohort members was completed, it was found that the first follow-up sample (that is, the sum of base year respondents and nonrespondents retained after first follow-up subsampling and first follow-up freshened students) was much more widely dispersed than had been anticipated. After eliminating the locations of the "known" dropouts ( $N=1,564$ ) from consideration (dropouts were sampled with certainty), the remaining eligible sample of students
( $N=18,726$ ) was dispersed among 3,224 schools/locations. ${ }^{4}$ Including dropouts, there were 4,788 locations. Once non-school locations associated with dropouts, early graduates, institutionalized sample members, home study students, and unlocatable sample members were subtracted from the total, there were 2,258 school sites.

It was clear that even if no attempt were made to satisfy the second goal--retention with near certainty of Hispanics, Asians, and American Indians from the first follow-up sample--that the fifth goal of achieving a cluster of students in 1,500 schools could not be met without significant losses in sample efficiency, effective sample size, or both. Table 3.1.4-1 shows the distribution of students eligible for second follow-up sampling (excluding dropouts) by school size, as well as the number of schools with at least one sample member who was either Hispanic, Asian, or American Indian. The data in the table indicated that to achieve disproportionate retention of minority students most of the schools containing these students would have to be selected, leaving few additional sample selections to distribute among the remaining school sites and contradicting the initial sampling plan to include with certainty any school with at least five NELS: 88 sample members enrolled at the sehiool.

After consideration of several alternative allocations--taking into account the negative effects of subsampling on sample efficiency, the strong desire to retain as many Hispanics, Asians, and American Indians as possible, and the substantial investment made in two prior rounds in obtaining student, parent, teacher, and school data for those students who would have been subsampled out--it was decided to include all first follow-up sample members in the second follow-up sample.

Initial Selection of the Second Follow-Up School Sample. All first follow-up sample members remaining after subsampling were included in the second follow-up (all sample members dropped from the first follow-up due to subsampling were also excluded from the second follow-up). Additionally, the teacher, school administrator, and transcript components were limited to a maximum of 1,500 schools. For this reason it was still necessary to select a sample of schools, although the students falling outside that sample would not be excluded from the study. For students ini the 1,500 schools selected, the full range of data-student, teacher, school administrator, parent, and transcript data-were collected; for the students in a school not among those selected, only student and parent data were collected.

A total of 2,258 schools were identified in the second follow-up tracing of the NELS: 88 first foliow-up sample; 1,500 of these were targeted for contextual data collection. In the spring of 1991, interviewers traced students to schoois, and all 1,030 schools identified as having four or more first follow-up sample members enrolled were included in the school-level sample with certainty (i.e., probability of 1.0 ). Prior to the fall of 1991 the contextual school sample was finalized through the following sampling process. A random sample of 45 of the 60 (probability $=0.75$ ) schools containing three sample members was selected. A random sample of 104 of the 160 (probability $=0.65$ ) schools containing two first follow-up sample members was selected for retention. Finally, a random sample of

4 In the second follow-up, dropouts were defined differently for sampling purposes than for data collection purposes. (See the NELS:88 Second Follow-Up: Dropout Component Data File User's Manual, section 4.3.1 for further details regarding the definition of dropouts for data collection and assignment of questionnaire.) For sampling purposes, dropouts comprised all individuals who were classified in the first follow-up as ever having dropped out-that is, dropouts (individuals who were not enrolled in school in the spring term of 1990) and stopouts (spring term 1990 students with a recorded 1988-1990 dropout episode), regardless of their school enrollment status as of the second follow-up spring term 1991 tracing effort. In other words, dropouts who had since returried to school and stopouts who remained in school were still counted as dropouts for sampling purposes, along with institutionalized individuals and the additional dropouts identified during second follow-up tracing.

Table 3.1.4-1
Clustering of first follow-up sample members eligible for second follow-up (schools [ $N=2,258$ ] and non-school locations)

| School Size | Total Schools | Total Schools With API,HIS,AI | Total Schools Without |
| :---: | :---: | :---: | :---: |
| 1 | 1974 | 579 | 1395 |
| 2 | 160 | 70 | 90 |
| 3 | 60 | 25 | 35 |
| 4 | 53 | 35 | 18 |
| 5 | 38 | 14 | 24 |
| 6 | 26 | 17 | 9 |
| 7 | 27 | 17 | 10 |
| 8 | 33 | 20 | 13 |
| 9 | 21 | 10 | 11 |
| 10 | 36 | 22 | 14 |
| 11 | 43 | 31 | 12 |
| 12 | 35 | 20 | 15 |
| 13 | 47 | 37 | 10 |
| 14 | 51 | 35 | 16 |
| 15 | 57 | 41 | 16 |
| 16 | 53 | 37 | 16 |
| 17 | 82 | 48 | 34 |
| 18 | 72 | 48 | 24 |
| 19 | 77 | 58 | 19 |
| 20 | 65 | 43 | 22 |
| 21 | 55 | 43 | 12 |
| 22 | 40 | 31 | 9 |
| 23 | 32 | 27 | 5 |
| 24 | 22 | 21 | 1 |
| 25 | 13 | 12 | 1 |
| 26 | 6 | 6 | 0 |
| 27 | 6 | 5 | 1 |
| 28 | 5 | 3 | 2 |
| 29 | 7 | 6 | 1 |
| 30 | 4 | 2 | 2 |
| 31 | 5 | 5 | 0 |
| 32 | 2 | 1 | 1 |
| 33 | 1 | 1 | 0 |
| 34 | 1 | 1 | 0 |
| 35 | 2 | 2 | 0 |
| 36 | 3 | 3 | 0 |
| 37 | 1 | 1 | 0 |
| 38 | 1 | 0 | 1 |
| 40 | 1 | 1 | 0 |
| 41 | 2 | 1 | 1 |
| 44 | 1 | 0 | 1 |

Table 3.1.4-1 (cont.) Clustering of first follow-up sample members eligible for second follow-up (schools [ $N=2,258$ ] and non-school locations)

| School Size | Total <br> Schools | Total Schools <br> With API,HIS,AI | Total Schoo <br> Without |
| :---: | :---: | :---: | :---: |
| 45 | 1 | 1 | 0 |
| 50 | 1 | 1 | 0 |
| 53 | 1 | 1 | 0 |
| 60 | 1 | 1 | 0 |
| Total | 3224 | 1383 | 1841 |

Note: known school-leavers are not included in the numbers above.

321 of the 1,008 (probability $=0.31845$ ) schools identified as containing one first follow-up sample member was selected for retention in the sample. In the fall of 1991 interviewers confirmed the enrollment of students at schools previously identified as enrolling three or fewer NELS:88 students.

School Sample for Freshening Purposes. Like the first follow-up student and school samples, the movement of students among schools resulted in a somewhat amorphous base from which to select schools and collect data. Students could have transferred any time between the time they were traced to a specific school in the spring of 1991 to the fall of 1991, when they were freshened in the fall of 1991, and when student and school administrator data were collected during the spring of 1992. It was possible for students to transfer to either a school that had been identified as a NELS: 88 second follow-up sampled school or to a non-NELS:88 school.

Because students may have transferred between schools at any time during the spring or fall of 1991, freshening did not necessarily occur at each of the 1,500 sampled schnols in the second follow-up. Freshening occurred only at those schools enrolling NELS: 88 sample members as of the first day of the 1991-1992 school year. ${ }^{\text {s }}$

School Sample for Purpeses of the Teacher Survey. The school sample for the purposes of collecting contextual data from teachers included a subset of the 1,500 contextual schools at which NELS:88 sample members were still enrolled at the beginning of student data collection in January 1992. However, by the end of second follow-up data collection, there were only 1,374 contextual schools at which at least one student was enrolled. The second follow-up teacher sample is distributed in 1,264 of

[^10]the 1,374 contextual schools. ${ }^{6}$ Figure 3-1 provides an illustration of the longitudinal sample design of the base year, first follow-up, and second follow-up cohorts and their inclusion in the second foliow-up contextual sample.

Users should note that teacher data from this sample of schools, to be used in analysis with second follow-up student data, must be used with a weight, F2CXTWT, calculated separately for the students included in the contextual components sample. If that weight is not applied, there will be a potential for systematic bias with respect to those factors associated with attendance at schools with fewer NELS: 88 students. For example, students who are more likely to transfer to different schools will be underrepresented if the weight is not applied.

### 3.1.5 Second Follow-Up Teacher Sample

The second follow-up teacher sample included one mathematics or science teacher of each student in the contextual components sample who was also enrolled in mathematics or science at the time of second follow-up data collection. Because teachers were selected based on whether they taught one of these subjects in a contextual school, the teacher sample does not constitute a strict probability sample of teachers. The student is the appropriate level of analysis, and users are advised to employ the teacher data as a contextual data source which informs student-level analyses.

The second follow-up teacher sample was designed to articulate with the collection of student questionnaires and the administration of student cognitive tests. Because most learning by twelfth-grade students occurs in the fall term of their senior year and because these students sometimes disengage from their high school career in the spring term, student data collection was scheduled as early as possible during the spring term of the 1991-1992 academic year: most in-school data collection sessions occurred in January, February, and March of 1992.

This "frontloading" of second follow-up student data collection was unlike the base year and first follow-up when student data collection in those rounds was concentrated in March through June. The spring term teacher was selected for the base year and first follow-up teacher surveys in order to parallel the student data collection schedule in those rounds. Second follow-up data were collected for most students in January through March of 1992, but some in-school data collection sessions were scheduled on or after April 1, 1992. Teachers were selected for the teacher survey in a way that reflected the span of time across which in-school data collection sessions were scheduled. For students whose in-school data collection session was scheduled for before April 1, 1992, the fall term teacher was selected for the teacher survey. For students eligible for the teacher survey in schools with in-school data collection sessions on or after Aprii 1, 1992, the spring term teacher was surveyed. ${ }^{7}$ However, the resulting distribution of the teacher sample indicated that 80.0 percent of the students had the same selected teacher

[^11]Figure 3-1: NELS:88 8th grade spring defined cohort status distribation in first and second follow-ups


[^12]for both the fall and spring terms. Another 17.5 percent of students were instructed by the fall term teacher oniy. A total of 2.5 percent of students were instructed by the spring term teacher only.

Students in the second follow-up contextual sample who were enrolled in either a mathematics or a science class were included in the second follow-up teacher survey. Unlike the base year and first follow-up teacher surveys in which up to two teachers per student ware included in the teacher sample, the second follow-up teacher survey only selected one teacher--either in mathematics or science --for each student enrolled in at least one course in these subject areas. In the fall of 1991, the names of the mathematics and science teachers of NELS:88 students in the 1,500 contextual schools were collected. For any schools at which the spring term teachers were surveyed, the names of the wachers of the NELS:88 stuodents were collected in early 1992. For students enrolled in only one course, that one mathematics or science teacher for the student was selected for the teacher sample. If a student was enrolled in both a mathematics and a science class, one of the teachers was selected based on the base year assigned subject area combination for the student. For freshened students added to the first or second follow-up who were enrolled in both mathematics and science in the second follow-up, the subject area combination of the student's linked partner was used to determine which teacher should be selected for the teacher survey. When a student was enrolled in more than one course in the selected subject area, the following decision rule was invoked to determine the selected teacher: first, the teacher who instructed the more advanced course was selected; second, the teacher of the course in which the student spent more time was selected; and finally, one of the teachers was selected randomly.

Although the second follow-up teacher sample was primarily defined in the fall of 1991, the inclusion of teacher data on the teacher file was limited to student participants who were in the contextual sample. Data collected from teachers of student nonparticipants or students who were not included in the final contextual sample were excluded from the teacher file.

Table 7.2.2-1 in Chapter VII highlights key similarities and differences between the base year, first follow-up, and second follow-up teacher files.

### 3.2 Calculation of Weights

The general purpose of weighting survey data is to compensate for unequal probabilities of selection and to adjust for the effects of nonresponse. Weights are often calculated in two main steps. In the first step, unadjusted weights are calculated as the inverse of the probabilities of selection, taking into account all stages of the sample selection process. In the second step, these initial weights are adjwited to compensate for nonresponse; such nonresponse adjustments are typically carried out separately within multiple weighting cells. This is the process that was applied to weighting NELS:88 data in all rounds.

### 3.2.1 Calculation of Base Year Sample Weights

The base year weights were based on the inverse of the probabilities of selection into the sample and on nonresponse adjustment factors computed within weighting cells. Two different weights were calculated to adjust for the fact that not all sample members have data for all instruments. The weight BYQWT applies to 24,599 student questionnaires (and is also used in conjunction with base year parent data), while BYADMWT applies to the 1,035 completed school administrator questionnaires. These weights project to the population of approximately $3,008,080$ eligible eighth graders in public, Catholic, and other private schools in 1988.

The base year weighting procedures consisted of two basic stages:
Stage 1. Calculation of a preliminary base year weight based on the inverse of the product of the probabilities of selection for the base year sample.

Stage 2. Adjustment of this preliminary weight to compensate for "unit" nonresponse, that is, for noncompletion of an entire school questionnaire or student questionnaire. The unit varied depending upon the weight being adjusted.

The nonresponse-adjusted school weight was derived as the product of the school's preliminary weight times a nonresponse adjustment factor intended to adjust for the fact that 17 sampled schools did not return a completed questionnaire. The preliminary weight for students was based upon the inverse of the probability that the student's school was selected into the sample multiplied by the inverse of the probability that the student was sampled within the school. The nonresponse-adjusted student weight was derived as the product of the student's preliminary weight times a nonresponse adjustment factor intended to adjust for the fact that some of the sampled students did not participate, that is, did not return a completed questionnaire. Statistical properties of the base year weights are presented in Table 3.2.1-1.

Each school appearing on the NELS:88 base year school file, and each student appearing on the NELS:88 student file, has a value for the final weight variable. The weight represents the probability of selection into the sample, in addition to a factor that adjusts for nonresponse. Thus, the weight serves the purpose of allowing a particular case to represent other nonsampled cases within its sampling stratum, and to represent nonresponding cases similar to it in various respects. Because separate final student and school weights have been provided, the construction of each will be considered separately in the following discussion.

Table 3.2.1-1
NELS:88 base year statistical properties of sample case weights

| Weight | School <br> BYADMWT | Student <br> BYQWT |
| :--- | :---: | ---: |
| Mean | 37.46 | 122.29 |
| Variance | $2,109.17$ | $4,359.16$ |
| Standard deviation | 45.92 | 66.02 |
| Coefficient of variation $(\times 100)$ | 122.59 | 53.99 |
| Minimum | 1.54 | 2.44 |
| Maximum | 387.30 | 836.91 |
| Skewness | 2.69 | 2.18 |
| Kurtosis | 9.47 | 16.32 |
| Sum | $38,774.12$ | $3,007,779$ |
| Number of cases | 1,035 | 24,599 |


#### Abstract

Base Year School Weights. The final school weight, BYADMWT, was derived using a multistage process. First, an initial weight-which represented the inverse of the school's selection probability--was attached to each school record in a file containing records for all eligible schools in the NELS:88 sample. A logistic regression procedure was used to estimate in terms of a probability of nonresponding the degree to which each of the responding schools resembled a nonresponding school. This estimated probability of nonresponse was the first adjustment factor applied to a school's weight.


Next, a polishing procedure-multi-dimensional raking-further adjusted the weights to sum to known population totals within strata. Estimating the nonresponse probability for each of the responding schools was possible because key background information on almost all of the nonresponding schools was available.

The final result of these procedures was a weight for each of the responding schools adjusted to compensate for nonresponse. For the purpose of adjusting the school weight, a nonresponding school was defined as a school for which both school administrator questionnaire data and student questionnaire data were unavailable.

Base Year Student Weights. The final student weight, BYQWT, was also derived using a multistage process. A design weight for each eligible student on a participating school's sample roster represented the student's probability of selection within the school. A student-level nonresponse adjustment factor was calculated by forming weighting cells based upon the combination of certain levels of variables representing school type, region, ethnicity, and gender. For each student, the product of a preliminary school weight and the student's design weight was formed. (The preliminary school weight was slightly different from BYADMWT. BYADMWT was adjusted to accommodate the 17 schools for which school administrator questionnaire data were unavailable though student questionnaire data had been obtained. The preliminary school weight eliminated this step in the adjustment process. Thus, it is appropriate for application to the 1,052 schools with student questionnaire data available). This product was summed for participating and nonparticipating students within weighting cells. The ratio of the sums for all sampled students to participating students was used as the nonresponse adjustment factor for each student's design weight.

### 3.2.2 Calculation of First Follow-Up Sample Weights

Two weights were developed for the overall NELS: 88 first follow-up sample. The first, or basic, weight applies to all members of the first follow-up sample who completed a first follow-up questionnaire, regardless of their participation status in the base year. The basic weight (F1QWT) allows projections to the population consisting of all persons wino were either in the eighth grade during the 1987-88 school year or in the tenth grade during the 1989-90 school year. Thus, this population encompasses both populations of prime analytic interest--the population of 1990 tenth graders (including those who were not eighth graders in 1988) and the 1988 eighth-grade population (excluding any additional 1990 tenth graders). By selecting the appropriate sample members, analysts can use this basic weight to make unbiased projections to the first of these populations (i.e., 1990 tenth graders). The seconi, or panel, weight applies to all members of the first follow-up sample with complete data from both rounds of the study. The panel weight (F1PNLWT) can be used to make projections to the other key analytic population-1988 eighth graders (excluding those ineligible for base year data collection).

In the first follow-up a contextual weight was not developed for use with the school administrator and teacher data. Because students were subsampled in the first follow-up and all NELS:88 schools they attended were included in the school adrninistrator sample, a contextual school weight was not necessary.

Analysts who are interested in performing analyses of first follow-up student data in conjunction with the first follow-up school administrator data should use the first follow-up basic student weight, F1QWT. In the second follow-up, students were not subsampled, but only a subset of schools attended by the NELS:88 cohort was included in the school administrator sample, and a special contextual weight, F2CXTWT, was developed for cross-sectional analysis with second follow-up school data. Analysts who are interested in comparing both first follow-up and second follow-up contextual data for students should refer to the following section for a complete description of the uses of the second follow-up contextual weight, F2CXTWT.

### 3.2.3 Calculation of Second Follow-Up Weights

Explanation of Weights. Eight weights were developed for inclusion on the data files. They include:

F2QWT This cross-sectional weight applies to all members of the second follow-up sample who completed a second follow-up questionnaire, regardless of their participation status in previous rounds. It allows projections to the population consisting of all persons who were either in the eighth grade during the 1987-88 school year, in the tenth grade during the 1989-90 school year, or in the twelfth grade an the 1991-92 school year. By selecting the appropriate sample members with the flag G12COHRT, analysts can use F2QWT to make unbiased projections to such populations as 1992 twelfth graders.

F2CXTWT This cross-sectional weight applies to students who attended the schools selected for inclusion in the teacher and school administrator components and who completed a second follow-up questionnaire. The population was restricted to early graduates and students who were in the schools during spring data collection. This weight allows analysts to generate national statistics using the school administrator and teacher data despite the bias against small cluster sizes in sample selection.

F2PNLWT This panel weight applies to sample members who completed a questionnaire in all three rounds of NELS:88. This can be used to make projections to the population of 1988 eighth graders.

F2F1PNWT This panel weight applies to all sample memibers who completed both a first follow-up and a second follow-up questionnaire, regardless of base year status. This allows projections to the population consisting of persons who were in the eighth grade in 1988 or in the tenth grade in 1990. By selecting appropriate sample members with the flag F2F1PNFL, analysts can use F2F1PNWT to make projections to such populations as 1990 tenth graders.

F2TRSCWT This cross-sectional weight applies to all early graduates, dropouts, students in sampled schools during spring data collection, and all sample members who were both ineligible for all three rounds of NELS:88 and were in the twelfth grade during the 1991-92 school year for whom we received a transcript.

F2TRP1WT This panel weight applies to sample members who were participants in 1988, 1990, and 1992 (all three rounds of NELS:88) and for whom transcript data are
available. $F 2^{r}$, , P1WT allows analysts to perform panel analyses using transcript data in conjunction with 1988, 1990, and 1992 test and questionnaire data.

F2TRP2V/is This panel weight applies to sample members who were participants in 1990 and 1992 (the first and second follow-up) and for whom transcript data are available. F2TRP2WT allows analysts to perform panel analyses using transcript data in conjunction with 1990 and 1992 test and questionnaire data.

F2PAQWT This cross-sectional weight applies to all students for whom a parent questionnaire was collected during the second follow-up.

The Second Follow-Up Contextual Weight: Cross-sectional and Panel Analyses. F2CXTWT is to be used in cross-sectional analyses of second follow-up teacher and school data in conjunction with the student and dropout data. A contextual panel weight was not developed for analysis of contextual data across rounds of NELS:88. Researchers who are interested in using prior rounds of teacher or school administrator data in conjunction with second follow-up contextual data should use the second follow-up contextual weight, F2CXTWT, instead. Due to factors such as nonresponse in prior rounds, this weight is not as precise as a contextual panel weight but is a functional approximation. ${ }^{8}$

Process for Calculation of Second Follow-Up Weights. A basic four-step process was defined for the calculation of all eight questionnaire weights. The first step, developing a classification scheme, was done at the beginning of the weighting process for all students in the sample. The values remained static and were used for all weights. Steps 2 through 4 were followed for all weights, but the results of each were tailored according to the characteristics of each weight's specific population.

Step 1. Develop a classification scheme.
All sample members were divided into sample groups depending on their status during data collection for each round of NELS:88. Freshened students were assigned the status of their linked student. Students whose status was unknown had their status imputed based upon the distribution of status across others in their base year, first, or second follow-up categories and, where group size permitted, race and gender were also considered. The basic classifications for a single round are:

1. Eligible, dropout as of survey date
2. Eligible, in school, in expected grade
3. Eligible, in school, not in expected grade
4. Ineligible
a. in school, in expected grade
b. in school, not in expected grade
c. not in school

[^13]5. Out of scope (deceased or out of country)
6. Eligible, freshened, dropout as of survey daie
7. Eligible, freshened, in school
8. Ineligible, freshened

In this classification scheme, "dropout" (following the High School and Beyond definition) refers to a student who has left a diploma-granting high school program. This included members who were not pursuing an education at all, home study students, members who were continuing their education in a non-traditional setting (e.g., preparing for the GED examination), and institutionalized sample members. There are two exceptions to this general rule. First, early graduates were included in the "in school" category. Second, because sample members in non-traditional schools during the first follow-up were classified as students then, they were treated as such during the calculation of their first follow-up status.
"Ineligible" refers to members who were not surveyed due to a language barrier or a mental or physical incapacity. "Expected grade" means tenth grade in the first follow-up and twelfth grade or early graduate in the second follow-up.

Step 2. Establish second follow-up design weight.
The design weight reflects the selection probabilities for each case for a given population. Sample members may have multiple design weights that vary depending upon the weight that is being calculated. For the weights unaffected by school sampling (F2QWT, F2PNLWT, F2F1PNWT) and for the dropouts, early graduates, and ineligible twelfth graders in F2TRSCWT, the design weight used is equal to the first follow-up design weight. ${ }^{9}$ Second follow-up freshened students take on the first follow-up design weight of the student they were linked to in the freshening process. When sample members are included due to their association with a sampled school in F2TRSCWT and for all members in the F2CXTWT population, it is equal to the first follow-up design weight divided by their school's second follow-up selection probability. For students represented in the parent sample, the calculation of F2PAQWT uses the first follow-up design weight divided by the parent's second follow-up selection probability.

Step 3. Adjust for second follow-up nonresponse.
Nonresponse adjustment cells were based upon combinations of the classification values from step 1 as well as race (Hispanic, API, other, unknown), and gender for the members of that weight's population. The second follow-up design weight for each responding sample member was inflated by a factor equal to the inverse of the weighted response rate for their celi. This yielded their nonresponse adjusted weight. This step was performed independently for each weight calculated. For second followup freshened students the nonresponse adjusted weight serves as their final weight.

[^14]Step 4. Perform multidimensional raking.
Sample members who were not freshened in the second follow-up had their second follow-up nonresponse adjusted weight further adjusted through a raking step. The total sum of the weights and percentage distributions that were used in raking were developed as follows:
a) Targets were developed that used the second follow-up expanded sample weight. The second follow-up expanded weight is a weight that was calculated for every sample member in order to estimate national dropout rates. ${ }^{10}$ It was used in developing total sum of weights targets to ensure consistency in dropout rates derived when using questionnaire weights. These targets were calculated separately for each of the eight questionnaire weights and reflected the characteristics of each weight's inference population. Two types of target numbers were developed. The sum of expanded weights for a given questionnaire weight's inference population was used as the target total population for that questionnaire weight. Weighted frequency distribrtions using the expanded weights associated with a questionnaire weight's inference population were calculated for the following: dropout rates between base year and first follow-up; dropout rates between first follow-up and second follow-up; and first foilow-up status (from step 1) and second follow-up status (from step 1).
b) Additional percentage targets were developed for raking using first follow-up weights. Calculated independently for each of the eight weights according to the characteristics of each inference population, these targets used F1QWT for sample members who had been eligible for the first follow-up questionnaire or the first follow-up design weight for those who were not. Weighted frequencies calculated using these weights were used as target distributions. These target categories included race (white, black, Hispanic, API, American Indian, unknown), gender, base year school region, base year school type, and base year school urbanicity.

Results of Weighting. To check the second follow-up contextual weight, its statistical properties were analyzed. Table 3.2.3-2 displays the mean, variance, standard deviation, coefficient of variation, minimum, maximum, skewness, and kurtosis for the weight. Tables showing results for the remaining weights can be found in the student, transcript (transcript weight), and parent (parent weight) data file user's manuals and the NELS:88 Second Follow-Up Sample Design Report.

### 3.3 Standard Errors and Design Effects

In this section we discuss the calculation of standard errors as a measure of sampling variability in survey results; the standard error is an estimate of the expected difference between a statistic from a particular sample and the corresponding population value.

10 For sample members not freshened in the second follow-up, the process involved using a multidimensional raking procedure to adjust the second follow-up design weight where the marginal target categories were 'zased on roster race (A.PI, Hispanic, other, unknown) and gender, base year schocl type, base year school region, base year school urbanicity, and the status values from the classification scheme described above in step 1. Target margins for the expanded weight were calculated using the first follow-up expanded sample weight (a similar weight developed in the first follow-up for estimating the 1988-90 dropout rate) for students for whom one was calculated and first follow-up design weights for the first follow-up sample members who did not receive a first follow-up expanded weight (such as the freshened). Second follow-up fresheried students have their second follow-up design weight as their expanded sample weight. This step was performed for the sample as a whole.

Table 3.2.3-2
Statistical properties of the second follow-up contextual weight

## WEIGHT

Mean
Variance
Standard Deviation
Coefficient of Variation (X 100)
Minimum
Maximum
Skewness
Kurtosis
Sum
Number of Cases

## F2CXTWT

171.77
102513.57
320.18
191.05
1.98
i2025.09
19.14
543.71

2,695,994.30
2,695,15,695

Survey Standard Errors. Because the NELS: 88 sample design involved stratification, disproportionate samplisg of certain strata, and clustered (i.e. multi-stage) probability sampling, the resulting statistics are more variable than they would have been had they been based on data from a simple random sample of the same size.

The calculation of exact standard errors for survey estimates can be difficult and expensive. Popular statistical analysis packages such as SPSS (Statistical Program for the Social Sciences) or SAS (Statistical Analysis System) do not calculate standard errors by taking into account complex sample designs. Several procedures are available for calculating precise estimates of sampling errors for complex samples. Procedures such as Taylor Series approximations, Balanced Repeated Replication (BRR), and Jackknife Repeated Replication (JRR) produce similar results. ${ }^{11}$ Consequently, it is largely a matter of convenience which approach is taken. For NELS:88, NORC used the Taylor Series procedure to calculate the standard errors.

Design Effects. The impact of departures from simple random sampling on the precision of sample estimates is often measured by the design effect (designated as DEFF). For any statistical estimator such as a mean or a proportion, the design effect is the ratio of the estimate of the variance of a statistic derived from consideration of the sample design to that obtained from the formula for simple random samples. The square root of the design effect (also called the root design effect, and designated as DEFT) is also useful. The following formulas define the desiga effects and root design effect:

$$
\begin{aligned}
& \text { 1) } \quad \text { DEFF }=\frac{(\text { DESIGN-SE })^{2}}{(\text { SRS-SE })^{2}} \\
& \text { 2) } \quad \text { DEFT }=\frac{\text { DESIGN-SE }}{\text { SRS-SE }}
\end{aligned}
$$

[^15]where DESIGN-SE designates the standard error of an estimate calculated by taking intc account the complex nature of the survey design, and SRS-SE designates the standard error of the same estimate calculated as if the survey design was a simple random sample.

### 3.3.1 Base Year Standard Errors and Design Effects

Selection of Base Year Items. Standard errors and design effects were selected for 30 means and proportions based on the NELS: 88 base year student, school, and parent data. ${ }^{12}$ The 30 variables from the student questionnaire were selected to overlap as much as possible with those variables examined in High School and Beyond. The remaining variables from the student questionnaire and from the parent and school questionnaires were selected randomly from each topical section of each questionnaire. Standard errors and design effects were calculated for each statistic both for the sample as a whole and for selected subgroups. For both the student and parent analyses, the subgroups were based on the student's sex, race and ethnicity, school type (public, Catholic, and other private), and socioeconomic status (lowest quartile, middle two quartiles, and highesi quartile). For the school analysis, the subgroups were based on two levels of school type (public and combined private) and eighth-grade enrollment (at or below the median and above the median).

### 3.3.2 First Follow-Up Standard Errors and Design Effects

Standard errors and aesign effects were also calculated for 30 means and proportions based on the NELS: 88 first follow-up student and dropout data. ${ }^{13}$ The goal was to estimate standard errors/design effects for all respondents including dropouts, on the one hand, and separately for dropouts, on the other. Because a special contextual weight was not constructed in the first follow-up, standard errors and design effects were not calculated separately for the school component.

### 3.3.3 Second Follow-Up Standard Errors and Design Effects

Standard errors and design effects were also calculated for 30 means and proportions based on the NELS: 88 second follow-up student, dropout, and parent data. As in the first follow-up analysis, the goal was to estimate standard errors/design effects for all respondents including dropouts and separately for dropouts.

Selection of Second Follow-Up Items. The same selection criteria were used for all components in selecting the items for standard error and design effect analysis. The first criterion was whether a question had been used in the NELS:88 base year analyses of standard errors and design effects. Because some items included in the base year standard error and design effect analysis were not repeated in the second follow-up, it was necessary to select new items for the analysis. Policy relevance was the criterion for selecting the remaining items. This criterion was applied in order to ensure that variables that are important to analysts, thus likely to have a higher frequency of use, were represented. These remaining items consisted primarily of critical items in the student questionnaire. For the contextual

[^16]sample, standard errors and design effects were calculated using the contextual weight for the same 30 variables employed for the student component standard error and design effect analysis discussed in Chapter III of the NELS: 88 Second Follow-Up: Student Component Data File User's Manual.

Results. Standard errors and design effects were calculated for each of the items for the sample as a whole and for selected subgroups. The subgroups were based on the respondent's sex, race/ethnicity, school type (public, Catholic, and other private), socioeconomic status (lowest quartile, middle two quartiles, and highest quartile), and urbanicity (urban, suburban, and rural. The standard errors and design effects were calculated using the second follow-up contextual weight, F2CXTWT. (A description of the contextual weight is presented in section 3.2.3.) Results for the student questionnaire items are shown in Tables 3.3.4-1 and 3.3.4-2.

### 3.4 Additional Sources of Nonobservational Error

Analysis of survey error is important for understanding the potential bias in making inferences from an obtained sample to a population. Sampling errors occur because the data are collected from a sample rather than a census of the population. Sampling error analyses for NELS:88 (documenting standard errors of measurement and design effects for key variables) were presented earlier in this chapter (see section 3.3). In this section, other sources of nonobservational error are discussed.

Nonobservational error results from measurements not being taken from a portion of the population. ${ }^{14}$ Several factors comprise nonobservational error, including nonresponse biases caused by unit and item nonresponse and undercoverage. Nonresponse is readily quantified. While many data quality factors are difficult to measure in the nonexperimental context of large-scale survey administration, NELS:88 offers the possibility of comparing reports from multiple sources, thereby permitting some approximate but useful validity parameters. Following is a discussion of nonobservational error in the teacher component in terms of nonresponse. A detailed discussion of student undercoverage appears in the NELS: 88 Second Follow-Up: Student Component Data File User's Manual.

### 3.4.1 Second Follow-Up Unit Nonresponse

Unit nonresponse occurs $\mathrm{F}^{*}$ en an individual respondent (such as a teacher, student, or school administrator) declines to participate, or when the cooperation of a school cannot be secured. In the base year, an analysis of school-level nonresponse suggested that, to the extent that schools can be characterized by size, control, organizational structure, student composition, and so on, the impact of nonresponding schools on the quality of the student sample is small (for details, see the NELS: 88 Base Year Sample Design Report, pp. 33-39). School nonresponse has not been assessed in the second followup for two reasons. First, there was very little school-level nonresponse-the school administrator questionnaire completion rate exceeded 97 percent. Second, the second follow-up sample was studentdriven, unlike the base year sample. Hence, even if a school refused, the individual student was pursued outside of school.

The effect of student-level nonresponse within the responding schools was not assessed in the base year, although males, blacks, and Hispanics tended to be nonparticipants more often than females, whites or Asians. The effects of individual nonparticipation in the base year, first and second follow-ups will be systematically examined, and reported in future NELS:88 documentation.

[^17]Table 3.3.4-1
Standard errors and design effects for second follow-up student questionnaire data for students in the contextual sample ( $N=\mathbf{1 5 , 6 9 5}$ )

## Students in Contextual Sample

| Survey item (or composite variable) |  | Esti- <br> mate | $\begin{gathered} \text { Design } \\ \text { S.E.: } \end{gathered}$ | DEFF | DEFT | N | $\begin{aligned} & \text { SRS } \\ & \text { S.E. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| There are many gangs in school | F2S7H | 16.58 | 0.723 | 5.830 | 2.414 | 15425 | 0.299 |
| I cut or skipped classes | F2S9B | 2.33 | 0.076 | 6.010 | 2.452 | 15433 | 0.031 |
| High school program - college prep | F2S12Ab | 42.12 | 0.972 | 6.031 | 2.456 | 15561 | 0.396 |
| High sct:jol prgram - voc/tech prgms | F2S12Ad | 14.92 | 0.584 | 4.182 | 2.045 | 15561 | 0.286 |
| Time watching TV during week | F2S35A | 78.47 | 0.692 | 4.261 | 2.064 | 15031 | 0.335 |
| Being successful in line of work | F2S40A | 98.62 | 0.400 | 18.367 | 4.286 | 15578 | 0.093 |
| Level schl R's mother wants R cmplte | F2S42B | 48.01 | 0.917 | 4.824 | 2.196 | 14318 | 0.418 |
| Level school R anticipates completing | F2S43 | 32.98 | 0.843 | 4.858 | 2.204 | 15108 | 0.382 |
| At age 30 R expects to be a manager | F2S64Bf | 5.47 | 0.347 | 3.456 | 1.859 | 14853 | 0.187 |
| At age 30 R expects to be technician | F2S64Bp | 5.49 | 0.344 | 3.389 | 1.841 | 14853 | 0.187 |
| I feel good about myself | F2S66A | 93.68 | 0.340 | 2.790 | 1.670 | 14293 | 0.204 |
| Luck more important than hard work | F2S66C | 10.85 | 0.495 | 3.601 | 1.893 | 14217 | 0.261 |
| Something always prevents success | F2S66F | 22.21 | 0.673 | 3.720 | 1.929 | 14191 | 0.349 |
| Plans hardly ever h )rk out | F2S66G | 19.44 | 0.737 | 4.905 | 2.215 | 14139 | 0.333 |
| I do not have much to be proud of | F2S66L | 14.52 | 0.593 | 3.979 | 1.995 | 14128 | 0.297 |
| Chances R's life better than parents | F2S67K | 61.62 | 0.897 | 4.773 | 2.185 | 14031 | 0.411 |
| Number friends plan to attend college | F2S69E | 54.82 | 0.997 | 5.674 | 2.382 | 14137 | 0.419 |
| Relationship with fthr/mthr R's child | F2S79 | 15.97 | 2.106 | 1.626 | 1.275 | 492 | 1.642 |
| Amt earn/hour current/mst recent job | F2S91 | 5.46 | 0.054 | 9.000 | 3.000 | 9300 | 0.018 |
| Amt earn from job R spends to go out | F2S92B | 15.43 | 0.750 | 5.178 | 2.276 | 12009 | 0.330 |
| Amt earn from job R spends on rent | F2S92D | 1.52 | 0.164 | 2.147 | 1.465 | 11957 | 0.112 |
| Last 2 yrs family memb in drug rehab | F2S96P | 6.99 | 0.335 | 2.641 | 1.625 | 15305 | 0.206 |
| Who decides if R can have job | F2S98C | 52.52 | 0.966 | 4.983 | 2.232 | 13315 | 0.433 |
| R's futr faml to be simlr to own faml | F2S100F | 38.54 | 0.953 | 4.923 | 2.219 | 12840 | 0.430 |
| English is native language | F2S107 | 10.36 | 0.801 | 10.778 | 3.283 | 15596 | 0.244 |
| How well does R speak English | F2S109B | 5.11 | 1.034 | 3.378 | 1.838 | 1531 | 0.563 |
| Reading IRT-estimated number right | F2TXRIRR | 32.97 | 0.240 | 7.111 | 2.667 | 12887 | 0.090 |
| Mathematics IRT-estmted nmbr right | F2TXMIRR | 48.21 | 0.346 | 7.662 | 2.768 | 12902 | 0.125 |
| Science IRT-estimated number right | F2TXSIRR | 23.28 | 0.143 | 6.760 | 2.600 | 12816 | 0.055 |
| Hist/Cit/Geo IRT-estmted nmbr right | F2TXHIRR | 34.77 | 0.122 | 6.738 | 2.596 | 12753 | 0.047 |
| Mean |  |  |  | 5.452 | 2.264 |  |  |
| Minimum |  |  |  | 1.626 | 1.275 |  |  |
| Maximum |  |  |  | 18.367 | 4.286 |  |  |
| Standard deviation |  |  |  | 3.090 | 0.570 |  |  |
| Median |  |  |  | 4.798 | 2.191 |  |  |

[^18]Table 3.3.4-1
Mean design effects (DEFFs) and root design effects (DEFTs)
for second follow-up student questionnaire data for students in contextual sample ( $N=\mathbf{1 5 , 6 9 5}$ )

| Group | Mean DEFF | Mean DEFT |
| :--- | :---: | :---: |
|  |  |  |
|  |  |  |
| All Respondents | 5.452 | 2.204 |
|  |  |  |
| Male $^{\text {a }}$ | 4.787 | 2.152 |
| Female | 5.227 | 2.130 |
| White |  |  |
| Black |  |  |
| Hispanic | 5.409 | 2.229 |
| Asian/Pacific Islander | 3.093 | 1.714 |
| American Indian/ | 3.881 | 1.932 |
| Alaskan Native | 3.486 | 1.834 |
|  |  |  |
| Public schools | 1.613 | 1.253 |
| Catholic schools |  |  |
| Other private schools | 4.992 | 2.162 |
|  | 14.923 | 1.646 |
| Low SES |  | 3.423 |
| Middle SES | 4.081 |  |
| High SES | 3.507 | 1.959 |
|  | 7.082 | 1.843 |
| Urban | 5.020 | 2.462 |
| Suburban | 5.710 | 2.175 |
| Rural | 4.536 | 2.273 |
|  |  | 1.978 |

[^19]
### 3.4.2 Second Follow-Up Item Nonresponse

Analysis of survey error is important for understanding potential bias in making inferences from an obtained sample to a population. Sampling and nonsampling errors are the key constituents of total survey error. Sampling error is quantified through the standard errors and design effects for key variables. There are various sources and types of nonsampling measurement error, including estimate error or bias associated with unit (individual) nonresponse and item nonresponse. This section reports specifically on nonsampling error as a function of item nonresponse. In addition to its role as a potential source of bias, item nonresponse also has the effect of diminishing the number of observations that can be used in calculating statistics from affected data elements and thus increases sampling variances. Since item nonresponse is an important potential end uncorrected source of data bias, it is necessary to measure its impact so that analysts can properly take potential response biases into account.

Item nonresponse occurs when a respondent fails to complete certain items on the survey instrument. While bias associated with unit nonresponse has been controlled by making adjustments to case weights, item nonresponse has generally not been compensated for in the NELS: 88 teacher component data set. There are two exceptions to this generalization.

The first exception is machine editing, through which, occasionally, certain nonresponse problems are rectified by imposing inter-item consistency, particularly by forcing logical agreement between filter and dependent questions. Thus, for example, the missing response to a filter question can often be inferred if the dependent question has been answered. Because the edited files were used in the nonresponse analysis reported below, this adjustment to item nonresponse is reflected in the results of the analysis.

The second exception is that some key student-level classification variables have been constructed in part from additional sources of infcrmation when student data are missing. Thus, data from school records (for example, student sex or race/ethnicity as given on the sampling roster) or other respondent sources (for example, the new student supplement) have been used to replace missing student data. Because composite variables were not included in the nonresponse analysis, this adjustment of missing data is not reflected in the statistics reported below.

A further point to note is that there may be some hidden nonresponse in the NELS:88 questionnaires that is impossible to quantify. This is the case because for a few questions, a "mark all that apply" format was used. While such a format results in slightly less burden on the respondent, it also makes it impossible to distinguish between a negative response and nonresponse. This conflation of negative response and nonresponse creates the potential for nonresponse biases that cannot be measured and thus cannot become the basis for precise warnings to users about the limitations of data.

A final point to note is that, implicitly, unit nonresponse is a further source of missing item data-that is, nonparticipating teachers complete no questionnaire items. Because no special teacher weight adjusts for teacher-level nonresponse, analysts cannot compensate for the bias that arises if nonrespondents would have answered the questionnaire differently than respondents. For this reason, "total response" should be thought of as the survey (unit) response rate times the item response rate. For the second follow-up teacher survey, the student-level, teacher coverage rate is 90.7 percent, and the item response rate is 89.4 percent. Together they yield a total response of 81.1 percent.

Two objectives structure this item nonresponse analysis. One objective is to quantify mean questionnaire nonresponse overall. A second objective is to describe nonresponse patterns in terms of
questionnaire item characteristics. In order to realize the first objective, average nonresponse rates were calculated for each item. In order to fulfill the second objective, nonresponse was measured as a function of three characteristics: 1) position in the questionnaire; 2) topic; and 3 ) whether the item was contingent on a filter.

## Population and Data File Definitions.

## Definition 1: "Item"

For purposes of this analysis, "item" refers to each data element or variable. For a question composed of multiple subparts, each subpart eliciting a distinct response is counted as an item for item nonresponse purposes. Thus, a single question that poses three subquestions is treated as three variables.

## Definition 2: "Response Rate"

NCES standards stipulate that item response rates ( Ri ) "are to be calculated as the number of respondents for which an in-scope response was obtained (i.e., the response conformed to acceptable categories or ranges), divided by the number of completed interviews for which the question (or questions if a composite variable) was intended to be asked.":
weighted \# of respondents with in-scope responses

In-scope responses were considered to be valid answers (including a "don't know" response when this was a legitimate response option). Out-of-scope responses were multiple responses to items requiring only a single response, refusals, and missing responses.

## Definition 3: "Analysis Populations"

Item nonresponse analysis population. Each student who completed a student questionnaire and for whom a teacher report in mathematics or science is included on the teacher component data file.

## Definition 4: "Teacher Questionnaire Data File"

The public use teacher file with machine-edited, student-weighted data were used as the basis for the analysis. Nonresponse rates of composite and other constructed variables were not examined in this analysis.

## Definition 5: "Nonresponse"

For the teacher questionnaire several numerical reserved codes were used to categorize nonresponse. The reserved codes and definitions appear below. The first three-reserved codes 6,7 and 8 --define out-of-scope or illegitimate nonresponse, and were used as the basis for this nonresponse analysis.

## $6=$ Multiple Response. For an item that required one response only, the respondent marked more than one response, and the multiple response could not be resolved.

$7=$ Refused Critical Item. Respondent was unwilling to answer the question at the time of the questionnaire administration and upon nonresponse follow-up by survey administrators.
$8=$ Missing. The response datum is illegitimately missing. That is, a datum that should be present for this respondent is missing.
$9=$ Legitimate Skip. The response datum is legitimately missing. That is, owing either to responses to preceding filter questions or to other respondent characteristics data for this item should not be present for this respondent. Responses under reserved code 9 were not included in the nonresponse analysis.

DK $=$ "Don't Know". "Don't Know" is often used as a nonresponse code. In the NELS: 88 data set, "Don't Know" is embedded as a legitimate response category in some of the questionnaire items. For purposes of this analysis, "Don't Know" was not classified as a nonresponse.

Item-level Nonresponse. Table 3.4.1-1 shows descriptive statistics for teacher questionnaire item nonresponse overall and for items grouped into categories depending upon their position in the questionnaire, the topic they addressed, and whether they were part of a skip or filter pattern.

The mean item nonresponse rate for the NELS:88 second follow-up teacher questionnaire is 10.6 percent. Mean teacher item nonresponse compares favorably with other second follow-up questionnaire item nonresponse rates, for example student ( 12.1 percent) and school administrator ( 15.5 percent).

During the survey's closing stages, one math or science teacher of 715 NELS: 88 second followup students ( 6.6 percent) was administered an abbreviated questionnaire by telephone. Abbreviated teacher questionnaires were administered when necessary to gain teacher cooperation. The teacher abbreviated survey consisted primarily of items designated as critical. While administration of abbreviated questionnaires necessarily decreases mean item response, teacher mean item nonresponse remains well below student and school administrator mean item nonresponse. Appendices F and G list the critical items in the teacher questionnaire and the abbreviated teacher questionnaire items respectively.

Higher levels of teacher survey item response can be attributed to two factors: fewer teacher items dependent on a filter question, and more teacher questionnaire critical items than either the student or dropout questionnaires. The following paragraphs examine these factors more closely.

Item-level Nonresponse by Item Placement and Characteristic: Teacher Questionnaire. Respondent burden associated with the length of the second follow-up teacher questionnaire may have contributed to item nonresponse. Mean item nonresponse in the final third of the teacher questionnaire is 15.8 percent, compared with 6.7 percent in the first third and 9.2 percent in the second third.

Item Nonresponse by Topic. Most teacher questionnaire topics appear to be subject to uniform nonresponse rates as displayed in table 3.4.1-1. Topics which exhibit high item nonresponse rates usually eccur at the end of the instrument and are usually dependent on a filter item. One example of this phenomenon is the group of questions which ask teachers to describe teacher enrichment programs (F2T4_18 -- F2T4_21). Most of these items occur on the last page of the questionnaire. Respondent burden was a likely contributor to nonresponse in these items. Additionally, nonresponse at the filter question which precedes the teacher enrichment items was carried through to the dependent items, compounding nonresponse in the dependent items.

Table 3.4.1-1
Percent nonresponse on the teacher component data file by various item characteristics

|  | Average | Standard <br> Deviation | Minimum | Maximum | Number <br> of Items |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Domain | 10.59 | 8.60 | 0.00 | 42.02 | 414 |
| Overall |  |  |  |  |  |
| Position | 6.65 | 6.12 | 0.00 | 23.76 | 138 |
| First Third | 9.32 | 2.98 | 0.00 | 19.83 | 139 |
| Second Third | 15.83 | 11.53 | 0.00 | 42.02 | 137 |
| Last Third |  |  |  |  |  |
| Topic (in order of appearance in the questionnaire) |  |  |  |  |  |
| Student Information | 3.80 | 3.41 | 0.07 | 8.39 | 27 |
| Class Information | 7.35 | 6.44 | 0.00 | 23.76 | 111 |
| School Climate \& Practices | 9.56 | 2.89 | 0.00 | 16.89 | 114 |
| Teacher Background \& Activities | 14.66 | 11.02 | 0.00 | 42.02 | 162 |
| Filtered |  |  |  |  |  |
| No | 7.64 | 3.78 | 0.00 | 19.83 | 245 |
| Yes | 14.86 | 11.41 | 0.00 | 42.02 | 169 |

Section two, "Class Information," question 16 (F2T2_16), is an exception. This item asks math teachers to answer a mathematical word problem. Math teachers avoided this question in large numbers ( 23.8 percent) when compared to the mean item nonresponse rate for the "Class Information" section ( 7.3 percent). During data collection, many teachers expressed their displeasure with question 16. This displeasure undoubtedly contributed to nonresponse in F2T2_16.

Item Nonresponse by Dependence on a Filter Question. Second follow-up teacher questionnaire nonresponse is twice as great in items dependent on a filter question. Dependent items carry with them missing data from the corresponding filter item. Teacher questionnaire filter items would probably have benefitted from the High School \& Beyond practice of making nearly all filter items critical and thus subject to retrieval. The nonresponse rates reported here for items dependent on a filter question are inflated to the extent that the rates contain "hidden skips." Hidden skips are those missing responses that would have been skips had the respondent answered the appropriate filter item. Unfortunately it is not possible to quantify hidden skips.

Teacher survey item response rates may be higher relative to second follow-up student and dropout item response rates because fewer items are dependent on a filter question. Only 40.8 percent (169 items) of the teacher questionnaire's items are dependent on a filter compared with 46.7 percent ( 224 items) in the dropout questionnaire, and 50.9 percent ( 287 items ) int the student questionnaire.

Teacher Survey Item-Level Nonresponse by Critical Items. The nonresponse rate for teacher survey critical items is 7.2 percent, well above the rate found in the second follow-up student questionnaire ( 3.3 percent) or the second follow-up dropout questionnaire ( 4.2 percent). The teacher instrument contains 165 critical items, triple the number in the student questionnaire ( 50 items), and well
above the number ( 110 items) in the dropout instrument. While a longer retrieval interview made it more difficult to retrieve all of the teacher critical items, the greater number of items designated as critical nay have contributed to the increased overall teacher response rate. Table 3.4.1-2 lists the weighted and unweighted nonresponse rates for the critical items.

Summary and Conclusions. Second follow-up teacher questionnaire item response rates benefitted from the inclusion of fewer items dependent on a filter question, and more critical items than either the student or dropout questionnaires. Mean weighted teacher questionnaire total response, 81.1 percent, is well within the NCES standard. NCES's standard asserts that total weighted response (unit nonresponse multiplied by item nonresponse) should be at least 70 percent. Second follow-up teacher questionnaire total response compares favorably with second follow-up student questionnaire total response ( 80.1 percent) and second follow-up dropout questionnaire total response ( 77.4 percent).

Table 3.4.1-2
Nonresponse for critical items in the teacher questionnaire
Item
Number

| Weighted | Unweighted |
| :---: | :---: |
| Percent | Percent |
| Not Responding | Not Responding |


| F2T2 3 | 0.98\% | 0.90\% |
| :---: | :---: | :---: |
| F2T2-4 | 0.54\% | 0.70\% |
| F2T2 5 | 0.27\% | 0.44\% |
| $\mathrm{F} 2 \mathrm{~T} 2^{-7} \mathrm{~A}$ | 0.54\% | 0.72\% |
| F2T2 7 B | 0.54\% | 0.72\% |
| F2T2-7C | 0.54\% | 0.72\% |
| F2T2 7 D | 0.54\% | 0.72\% |
| F2T2-7E | 0.54\% | 0.72\% |
| F2T2 7 F | 0.54\% | 0.72\% |
| F2T2-14A | 1.65\% | 1.63\% |
| F2T2-14B | 1.53\% | 1.61\% |
| F2T2-14C | 1.63\% | 1.60\% |
| F2T2-14D | 1.92\% | 1.80\% |
| F2T2-14E | 1.83\% | 1.70\% |
| F2T2_14F | 1.76\% | 1.87\% |
| F2T2_14G | 1.64\% | 1.63\% |
| F2T2 14 H | 2.01\% | 1.99\% |
| F2T2-14I | 1.78\% | 1.83\% |
| F2T2_14J | 1.83\% | 1.87\% |
| F2T2_15A | 1.83\% | 1.60\% |
| F2T2 15B | 2.34\% | 1.92\% |
| F2T2-15C | 2.05\% | 1.68\% |
| F2T2_15D | 2.11\% | 1.82\% |
| F2T2 15E | 2.17\% | 1.83\% |
| F2T2-15F | 2.20\% | 1.78\% |
| F2T2-15G | 2.52\% | 2.07\% |
| F2T2_15H | 2.21\% | 1.85\% |
| F2T2-15I | 2.47\% | 2.16\% |
| F2T2_15J | 2.35\% | 2.04\% |
| F2T2_15K | 2.50\% | 2.04\% |
| F2T2 18A | 5.99\% | 6.99\% |
| F2T2_18B | 6.84\% | 7.34\% |
| F2T2_18C | 6.43\% | 7.57\% |
| F2T2 18D | 6.47\% | 7.44\% |
| F2T2_18E | 6.30\% | 7.34\% |
| F2T2_18F | 6.98\% | 7.52\% |
| F2T2_18G | 6.99\% | 7.44\% |
| F2T2-18H | 6.43\% | 7.49\% |
| F2T2-19A | 0.96\% | 1.51\% |
| F2T2-19B | 0.91\% | 1.49\% |
| F2T2-19C | 1.13\% | 1.67\% |
| F2T2_19D | 1.17\% | 1.67\% |

Note: For a list of the actual questions, refer to Appendix F.

Table 3.4.1-2 (cont.)
Nonresponse for critical items in the teacher questionnaire

|  | Weighted | Unweighted |
| :--- | :---: | :---: |
| Item | Percent <br> Number | Not Responding |$\quad$ Nof Responding


| F2T2_19E | 1.40\% | 1.84\% |
| :---: | :---: | :---: |
| F2T2-19F | 1.16\% | 1.67\% |
| F2T2-19G | 1.18\% | 1.67\% |
| $\mathrm{F} 2 \mathrm{~T} 2^{-19 \mathrm{H}}$ | 1.15\% | 1.67\% |
| F2T2-191 | 1.15\% | 1.72\% |
| $\mathrm{F} 2 \mathrm{~T} 2-19 \mathrm{~J}^{-1}$ | 1.16\% | 1.74\% |
| F2T2-20 | 0.04\% | 0.08\% |
| F2T2-20A | 7.60\% | 10.84\% |
| $\mathrm{F} 2 \mathrm{~T} 2^{-20 \mathrm{~B}}$ | 7.85\% | 11.28\% |
| F2T2-20C | 7.73\% | 10.84\% |
| F2T2-20D | 8.02\% | 11.10\% |
| F2T2-20E | 7.92\% | 11.01\% |
| F2T2-20F | 7.99\% | 11.10\% |
| F2T2-20G | 7.91\% | 11.01\% |
| $\mathrm{F} 2 \mathrm{~T} 2-20 \mathrm{H}$ | 8.04\% | 11.19\% |
| F2T2-201 | 7.90\% | 11.01\% |
| F2T2-21 | 0.04\% | 0.08\% |
| F2T2-21A | 20.06\% | 21.99\% |
| F2T2-21B | 19.78\% | 22.08\% |
| F2T2 21 C | 21.09\% | 23.13\% |
| F2T2 21D | 20.85\% | 22.96\% |
| F2T2 21 E | 21.10\% | 23.22\% |
| F2T2 21 F | 21.09\% | 23.31\% |
| F2T2 21G | 21.32\% | 23.13\% |
| F2T2-21H. | 21.76\% | 23.75\% |
| F2T2-211 | 21.85\% | 23.75\% |
| F2T2-21J | 21.42\% | 23.13\% |
| $\mathrm{F} 2 \mathrm{~T} 2^{-22}$ | 0.04\% | 0.08\% |
| F2T2 22 A | 11.60\% | 12.92\% |
| F2T2 22 B | 11.43\% | 12.69\% |
| F2T2-22C | 11.53\% | 12.75\% |
| F2T2-22D | 11.47\% | 12.75\% |
| F2T2-22E | 11.31\% | 12.35\% |
| F2T2-22F | 11.56\% | 12.87\% |
| F2T2-22G | 11.05\% | 12.41\% |
| F2T2-22H | 11.41\% | 12.69\% |
| F2T3-13A | 8.38\% | 8.13 \% |
| F2T3-13B | 9.95\% | 8.90\% |
| F2T3-13C | 8.73\% | 8.27\% |
| F2T3-13D | 8.54\% | 8.19\% |
| F2T3_13E | 8.43\% | 8.22\% |

Note: For a list of the actual questions, refer to Appendix F.

Table 3.4.1-2 (cont.)
Nonresponse for critical iterss in the teacher questionnaire

| Item Number | Weighted Percent Not Responding | Unweighted Percent Not Responding |
| :---: | :---: | :---: |
| F2T3_13F | 8.87\% | 8.73\% |
| F2T3-i6A | 8.19\% | 8.01\% |
| F2T3_16B | 8.24\% | 8.07\% |
| F2T3-16C | 8.31\% | 8.09\% |
| F2T3-16D | 8.36\% | 8.17\% |
| F2T3-16E | 8.35\% | 8.10\% |
| F2T3-16F | 8.23\% | 8.10\% |
| F2T3-16G | 8.83\% | 8.63\% |
| F2T3-16H | 8.54\% | 8.36\% |
| F2T3-161 | 8.65\% | 8.55\% |
| F2T3-16J | 8.68\% | 8.54\% |
| F2T3-16K | 8.30\% | 8.16\% |
| F2T3-16L | 8.36\% | 8.20\% |
| F2T3_16M | 8.72\% | 8.67\% |
| F2T3-16N | 8.37\% | 8.21\% |
| F2T3-160 | 8.46\% | 8.20\% |
| F2T3-16P | 8.32\% | 8.12\% |
| F2T4_1 | 1.08\% | 1.20\% |
| F2T4-2 | 1.58\% | 1.61\% |
| F2T4-3 | 9.69\% | 9.79\% |
| F2T4_4A | 8.02\% | 7.80\% |
| F2T4-4B | 8.09\% | 7.89\% |
| F2T4-5 | 8.26\% | 8.06\% |
| F2T4-6 | 8.13\% | 7.84\% |
| F2T4- ${ }^{-1}$ | 11.73\% | 11.42\% |
| F2T4.7B | 19.82\% | 19.12\% |
| F2T4-8A | 8.16\% | 7.94\% |
| F2T4-8B | 8.16\% | 7.94\% |
| F2T4-8C | 8.16\% | 7.94\% |
| F2T4_8D | 8.15\% | 7.94\% |
| F2T4-8E | 8.16\% | 7.94\% |
| F2T4-8F | 8.16\% | 7.94\% |
| F2T4 8 G | 8.16\% | 7.94\% |
| F2T4-9A1 | 8.05\% | 7.85\% |
| F2T4-9A2 | 8.05\% | 7.85\% |
| F2T4-9B1 | 8.05\% | 7.85\% |
| F2T4-982 | 8.05\% | 7.85\% |
| F2T4-9Cl | 8.05\% | 7.85\% |
| F2T4 9 C 2 | 8.05\% | 7.85\% |
| F2T4-9D1 | 8.05\% | 7.85\% |
| F2T4-9D2 | 8.05\% | 7.85\% |
| F2T4_9E1 | 8.05\% | 7.85\% |
| F2T4_9E2 | 8.05\% | 7.85\% |

Note: For a list of the actual questions, refer to Appendix F.

Table 3.4.1-2 (cont.)
Nonresponse for critical items in the teacher questionnaire

|  | Weighted <br> Percent <br> Item | Unweighted <br> Percent <br> Number |
| :--- | :---: | :---: |
| Not Responding | Not Responding |  |


| F2T4_9F1 | 8.05\% | 7.85\% |
| :---: | :---: | :---: |
| F2T4-9F2 | 8.05\% | 7.85\% |
| F2T4-9G1 | 8.05\% | 7.85\% |
| F2T4-9G2 | 8.05\% | 7.85\% |
| F2T4-9H1 | 8.05\% | 7.85\% |
| F2T4-9H2 | 8.05\% | 7.85\% |
| F2T4-911 | 8.05\% | 7.85\% |
| F2T4-912 | 8.05\% | 7.85\% |
| F2T4-10 | 0.00\% | 0.00\% |
| F2T410A1 | 13.22\% | 12.48\% |
| F2T410A2 | 13.22\% | 12.48\% |
| F2T410B1 | 13.22\% | 12.48\% |
| F2T410B2 | 13.22\% | 12.48\% |
| F2T410C1 | 13.22\% | 12.48\% |
| F2T410C2 | 13.22\% | 12.48\% |
| F2T410D1 | 13.22\% | 12.48\% |
| F2T410D2 | 13.22\% | 12.48\% |
| F2T410E1 | 13.22\% | 12.48\% |
| F2T410E2 | 13.22\% | 12.48\% |
| F2T410F1 | 13.22\% | 12.48\% |
| F2T410F2 | 13.22\% | 12.48\% |
| F2T410G1 | 13.22\% | 12.48\% |
| F2T410G2 | 13.22\% | 12.48\% |
| F2T410H1 | 13.22\% | 12.48\% |
| F2T410H2 | 13.22\% | 12.48\% |
| F2T41011 | 13.22\% | 12.48\% |
| F2T41012 | 13.22\% | 12.48\% |
| F2T4_11A | 0.00\% | 0.00\% |
| F2T4-11B | 0.00\% | 0.00\% |
| F2T4-11C | 0.00\% | 0.00\% |
| F2T4-11D | 0.00\% | 0.00\% |
| F2T4-11E | 0.00\% | 0.00\% |
| F2T4-11F | 0.00\% | 0.00\% |
| F2T4_11G | 0.00\% | 0.00\% |
| F2T4-11H | 0.00\% | 0.00\% |
| F2T4_11I | 0.00\% | 0.00\% |
| F2T4-11J | 0.00\% | 0.00\% |
| F2T4_11K | 0.00\% | 0.00\% |
| F2T4_11L | 0.00\% | 0.00\% |

Note: For a list of the actual questions, refer to Appendix F.

## IV. Data Collection

This chapter describes the data collection procedures for all components of the NELS:88 second follow-up: student and dropout, teacher, school administrator, parent, and academic transcript and course offerings. The design of the second follow-up closely resembled that of the first follow-up and was executed in three phases which spanned two years. Self-administration and telephone administration were the primary modes of data collection for the components of the second follow-up. Although data collection did not occur for the teacher component until the third phase of the study in 1992, pre-data collection activities related to the teacher component were conducted in the first and second phases of the study in 1991. Phase three was conducted i 1992 and constituted the data collection effort. Figure 4-1 summarizes the activities conducted during the three phases of the second follow-up.

### 4.1 Second Follow-Up Pre-Data Collection Activities

Phase 1. Conducted from January through June 1991, phase 1 involved securing state, district, and school-level cooperation for the study as well as tracing sample members. State cooperation with NELS:88 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 1951.

Tracing sample members served two purposes: defining the schools to be included in the second follow-up sampling process and locating sample members for data collection. As in the first follow-up, the second follow-up study was designed such that only students attending a school included in the second follow-up school sample would receive the full complement of contextual data including teacher and school administrator reports. To maximize the number of students to receive the full complement of contextual data, interviewers attempted to trace all sample members to either their first follow-up school of atteridance or to a new school. Once students were traced to a school, the second follow-up school sample was drawn such that the greatest number of students would be included in the school sample and receive the full complement of contextual data.

The second purpose of tracing related to data collection. Interviewers attempted to trace students to their first follow-up or new school of attendance, and prior to the beginning of phase 2 the sample of second follow-up schools was finalized. 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. Through tracing students to a first follow-up school, a new school, or a home address, and through the selection of the schools to be included in the second follow-up school sample, interviewers were able to forecast whether a student's data would be collected through a second follow-up school or if a sample member would need to be conkacted separately during data collection. 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.

Phase 2. From September to December 1991, phase 2 pre-data collection activities occurred for all components of the study, and some phase 1 activities continued. District and school-level cooperation was 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
Figure 4-1: Second follow-up data collection phase diagram

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

and sample members who had left school were also traced again to their school of attendance or to a home address. Table 4.1-1 summarizes the results of district and school contacting and student tracing in phases 1 and 2.

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 selested for the base year sampling frame. See Chapter III of the NELS: 88 Second Follow-Up: Student Component Data File User's Manual for a complete discussion of freshening the student sample.

Table 4.1-1
Summary of NELS:88 second follow-up district/diocese and school contacting

|  | Eligible <br> Sample ${ }^{\mathbf{2}}$ | Agreed to Participate | Cooperation Rate |
| :---: | :---: | :---: | :---: |
| District/Diocese |  |  |  |
| Contacting: |  |  |  |
| Public | 862 | 853 | 99.0\% |
| Catholic/ |  |  |  |
| Other Private | 52 | 52 | 100.0\% |
| Total | 914 | 905 | 99.0\% |
| School Contacting: |  |  |  |
| Public | 1155 | 1145 | 99.1\% |
| Catholic/ |  |  |  |
| Other Private | 232 | 228 | 98.3\% |
| Total | 1387 | 1373 | 99.0\% |

* 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 NELS: 88 schools whose students were included in the contextual sample.

Data were collected for the contextual components (the teacher, school administrator, parent, academic transcript, and course offerings components). To identify the sample for the teacher survey, they compiled the names of mathematics and science teachers of the student sample members. Interviewers alerted school administrators to the questionnaire that they would receive during data collection. Interviewers collected parent address and telephone information for the parent survey. 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. After the tracing of sample members was comnleted, 97.3 percent ( $N=20,623$ ) of the 21,188 second follow-up sample members had been located. .igure 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 dermed ineligible to participate in the second followup 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).

### 4.2 Second Follow-Up Data Collection Activities

Phase 3. Data collection for the second follow-up was conducted from January through December 1992. Although the data collection periods of the individual components of the study were staggered, there was a high degree of overlap between the data collection periods of the individual components, and most data were collected from January through June 1992, the spring term of the 19911992 academic year. Figure 4-3 shows the field periods of each component of the study.

Most of the components of the survey utilized more than one mode of data collection, usually self-administration and telephone administration of the survey instruments. In some cases abbreviated versions of the instruments were implemented as discussed in Chapter II of this manual.

### 4.3 Teacher Survey

The teacher suryey was designed to articulate with the student cognitive tests and included one mathematics or science teacher of students at NELS: 88 sampled schools when the student was enrolled in one of these classes. To minimize the amount of time between the collection of the student and teacher data, either the fall or spring term teacher was selected depeniding on when student data were collected at a school, and the questionnaires were mailed to the teachers in two waves.

Eighty percent of sampled students at NELS:88 schools who were enrolled in a mathematics or science class were instructed by the same mathematics or science teacher during the entire 1991-1992 academic year, and 20.0 percent were instructed by different teachers in the fall and spring. Of the 20.0 percent who were instructed by different teachers, 17.5 percent of students were instructed by fall term teacher, and 2.5 percent of students were instructed by only the spring term teacher. For students who had different mathematics or science teachers in the fall or spring term, the fall term teacher was mailed a questionnaire in early February if the in-school data collection session at a stident's school was scheduled for a date before April 1, 1992. If the data collection session was scheduled on or after April 1 , then the spring term teacher was mailed a questionnaire in early March 1992. Since must: in-school data collection occurred during January through March of 1992, teachers of most students were mailed a questionnaire in early February. This design was based on the assumption that, if the student's fall and spring teachers were different, in the first three months of the spring term, the fall term teacher would be more familiar and able to assess the student than the spring term teacher would be. On or after April 1, it was assumed that the spring term teacher had sufficient exposure to the student in order to make a full assessment of the student and that three months after the beginning of the spring term, the fall term teacher might have difficulty recalling the student's performance.

After identifying whether the fall or spring term teacher would be selected for the teacher survey, the subject area of a student's teacher report was determined. If the student was enrolled in only one class out of the two subject areas, mathematics or science, then the one teacher was selected. However,

Figure 43 NELS：88 second follow－up data collection field periods by component

| Figure 43 NELS：88 second follow－up data collection field periods by component |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1992 |  |  |  |  |  |  |  |  |  |  |  |
|  | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | Nov | DEC |
| Cohort | ॥, | \％．．．．．． | §． |  | 【．．．．．． | \．．．．．． | －－－－ | － | －－－－－－－－－－ | $\cdots--\cdots-\cdots-\cdots$ |  |  |
| Scheol |  |  | \．．．．．．．．． | 【．．．．．．．．．． |  | ऑ．．．．．． | －－－－－－－－－1 |  |  |  |  |  |
| Parent ${ }^{\text {a }}$ |  |  |  |  | K. | \．．．．． |  |  |  |  | 【． | －－－－－－－－1 |
| Teacher |  | $\stackrel{\pi}{\\|}$ |  | ॠ．．．． |  | K. | －－－－－－－－－1 |  |  |  |  |  |
| Transcripts |  |  |  |  |  |  | \．．．．．．． |  |  |  | \＄． |  |

：：：：：：：：：：：：：：：＝Main data collection period

## Low level of data collection

－The NELS：88 second follow－up parent questionnaire included questions about postsecondary educational costs and financial aid decisions． Because this information is not available to many parents until the end of their teenager＇s senior year，parent data collection began in May 1992，to ensure that parents could answer these questions fully．
$\because 1$
if the student was enrolled in both mathematics and science, the subject area of the teacher report was the same as the base year selected subject for the student. Some students who were enrolled in both a mathematics and a science class were added to the first follow-up or second follow-up through freshening. For the freshened students who were enrolled in both mathematics and science, the subject area of the student's teacher report was the base year selected subject of the student's linked partner in the freshening procedure.

Two weeks after the teacher questionnaires were mailed, nonresponding teachers were prompted for the return of the questionnaire with a postcard reminder. Beginning two weeks after the postcard reminder was mailed to teachers, nonresponding teachers were prompted for the return of the questionnaire over the telephone. Interviewers attempted to interview over the telephone any teachers who did not respond within two weeks after the postcard and telephone prompts. Figure 4-4 shows the number and percentage of the 5,657 teachers on the file who completed a self-administered questionnaire, a telephone-administered questionnaire, and a telephone-administered abbreviated questionnaire. Figure 4-5 illustrates the mode of completion of the teacher instrument for the 10,861 students who were eligible for the teacher component, and for whom student data are also available.

To minimize mode effects between self-administration and telephone administration of the instrument, interviewers were trained to adapt the questions to make sense when read over the telephone. Additionally, teachers were asked to read along in the questionnaire during the telephone interview if they had the copy of the questionnaire mailed to them.

### 4.4 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 data collection procedures were very similar to those used in the first follow-up. Student questionnaires and cognitive tests in math, science, reading, and social studies were administered at in-school, group data collection sessions averaging approximately 9 students.

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. Interviewers reviewed the questionnaires to ensure that ail 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.

At the end of the survey session, arrangements were made to conduct make-up sessions for students who were scheduled but unable to attend the initial survey session or whose schedules required that they leave before completing both instruments. 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

Figure 4-4
NELS:88 second follow-up teacher questionnaires completed by mode of administration for teacher with at least one student participant ( $N=5,657$ )

## 7.7\%

Abbreviated Version
Telephone Administered
Questionnaires

$$
(N=440)
$$

78.3\%

Self-Administered.
Questionnaires
( $\mathrm{N}=4432$ )

Figure 4-5
NELS:88 second follow-up mode of completion of teacher data for student participants eligible for and included on the teacher public use data file ( $N=\mathbf{1 0 , 8 6 1}$ )*

*Note: The total student sample size for the teacher public use data file is 15,695 . Of this total, 10,861 students were enrolled in a mathematics or science class and were terefore eligible for the teacher study. The remaining 4,834 students were not enrolled in a mathematics or science class and were ineligible for the teacher study. The variable F2SUBJCT in the teacher codebook contained in Appendix I illustrates this distribution.
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 student sample members only an abbreviated version of the studert or dropout questionnaire was collected, or 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 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.

### 4.5 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 foilow-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 by Figure 4-6. The first were high school students who were enrolied in a school which offered programs ending in the granting of a diploma. These students were administered the student questionnaire and 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 returned to 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 nis or her alternative program, a student questionnaire was collected from the student. 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.

Figure 4-6: Alternative educational paths through high school


Note: A within-round dropout-returnee is, in NELS: 88 parlance, a "stopout." During the second followup, a stopout was defined as a sample member who had dropped out of school at some point in the 19901991 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

The fourth type were dropouts receiving no academic instruction. 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 NELS: 88 Second Follow-Up: Dropout Component Data File User's Manual.

### 4.6 School Effectiveness Study

Because the NELS:88 second follow-up core study was conducted at 97.8 percent of the schools at which the school effectiveness study was conducted, data were collected for students in these schools using the same data collection procedures as second follow-up cohort students.

Self-administered student questionnaires and cognitive tests were administered to SES students through buth 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 randomily selected for each school in either mathemptics 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. The teacher, parent, transcript, and course offerings components were also conducted for the SES sample members. A more detailed discussion of the school effectiveness study will be presented in forthcoming documentation, which will accompany the release of those data.

### 4.7 Followback Study of Excluded Students

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 in the NELS: 88 Second Follow-Up Student Component Data File User's Manual 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 (FSES) 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 $1987-8 \%$ school $\because$ ar, 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 both Spanish and 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 first follow-up eligibility rules 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:

- $\quad$ 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.

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.

### 4.8 School Administrator Survey

In February 1992, school administrator questionnaires were mailed to the principal or headmaster of selected NELS: 88 schools with second follow-up sample members still in attendance. Completed selfadministered questionnaires and telephone interviews were collected from February through June 1992. For any interviews conducted after the end of the 1991-1992 academic year, school principals were asked to refer to the previous academic year.

As in the first follow-up the school principal or headmaster could delegate all but one of the sections to another knowledgeable school official. The school principal was specifically required to complete the fifth section of the questionnaire on school governance and school climate.

Two weeks after the school administrator questionnaire was mailed to principals and headmasters, a postcard was mailed to all principals asking them to return the questionnaire if they had not already completed and returned it. Two weeks after the postcard reminder was mailed, interviewers began prompting nonresponding principals over the telephone for the return of the questionnaire. About three weeks after each principal was prompted for the reiurn of the questionnaire over the telephone, interviewers began calling nonresponding school administrators to attempt to collect the questionnaire over the telephone. An abbreviated version of the school administrator questionnaire was administered to nonresponding principals near the end of the data collection period.

Because questionnaires from school principals were completed in two different modes of data collection, by self-administration and telephone administration, a number of steps were taken to minimize any mode effects. Telephone interviewers were trained to adapt the questions in a way' which made sense when asked over the telephone. If a school administrator had a copy of the questionnaire, he or she was encouraged to read along in the questionnaire as the interviewer asked the questioris over the telephone.

### 4.9 Parent Survey

In May 1992, parent questionnaires were mailed to all parents and guardians of students and dropouts who had completed a student or dropout questionnaire. The self-administered questionnaires instructed the parent or guardian who was most knowledgeable about the teenager's current living situation and educational plans to complete the questionnaire. Accordingly, the parent sample was selfselected.

The timing of the second follow-up parent survey was different from the timing of the base year parent survey due to differences in the content of the questionnaires. Because the second follow-up parent questionnaire included questions on financial aid for postsecondary education and this information is not available to most families until late in the spring of teenagers' twelfth grade, the parent survey was not conducted at the same time as the student and dropout surveys. However, parent respondents were asked to refer to the spring of 1992 when completing the questionnaire. The base year parent survey was conducted concurrently with the student data collection.

Two weeks after the questionnaires were mailed, a postcard reminder was mailed to all parents. For parents who had already completed the questionnaire, the postcard thanked them for their
participation. For parents who had not yet returned their questionnaire, the postcard asked them to complete and mail the questionnaire to NORC at their earliest convenience. Starting two weeks after the postcard reminder was mailed to parents, telephone interviewers began prompting nonresponding parents over the telephone for their completed questionnaire. Telephone interviews were attempted with a subsample of parents who did not respond to the posicard and telephone prompts.

To minimize mode effects between self-administration and telephone administration of the instrument, interviewers were trained to adapt the questions to make sense when read over the telephone. Additionally, parents were asked to read along in the questionnaire during the telephone interview if they had the copy of the questionnaire mailed to them.

Special steps were taken to ensure comparable completion rates for the parents of minoritylanguage (Hispanic and Asian/Pacific Islander) sample members. In the initial mailing of questionnaires to parents, both English and Spanish questionnaires were mailed to parents of Hispanic students and dropouts so that an Hispanic parent could complete the questionnaire in the language with which the parent was more comfortable. Spanish-speaking interviewers were trained to administer the questionnaire over the telephone in Spanish when necessary. As in the base year parent survey when 575 Spanishlanguage questionnaires ( $2.5 \%$ of all parents and $23.0 \%$ of Hispanic parents) were completed, 373 Spanish-language parent questionnaires ( $2.1 \%$ of all parents and $21.6 \%$ of Hispanic parents) were completed during the second follow-up.

While a native language questionnaire was not available to Asian and Pacific Islander parents, parents who spoke the most common Asian languages were prompted over the telephone for the return of the questionnaire by a native speaker. The languages in which these parents were prompted included Chinese, Japanese, Tagalog, Korean, and Vietnamese. In the respondent's native language, Asian telephone interviewers explained why the parent's participation in the study was important and encouraged them to seek the assistance of another adult for completing the English version of the questionnaire; however, no translation of the questionnaire into these languages was conducted over the telephone.

### 4.10 Academic Transcripts

In August 1992, transcript survey materials were mailed to the principals of the NELS:88 and non-NELS:88 schools attended or most recent y ? ttended by sample members of the student cohort. Because of the variability in transcript format across schools, explicit instructions for transcript preparation were provided. School staff were asked to retrieve from alternate sources any data elements that were not included on the school's transcripts. Transcript preparers were also asked to note any transfers of students to new schools after data collection, to facilitate the pursuit of additional records from transfer schools.

Two weeks after survey materials were mailed, nonresponding principals were prompted for the return of transcripts with a postcard reminder. Principals who did not return transcripts within three weeks of the postcard prompt were piompted over the telephone. Telephone prompting of nonresponding principals continued from October 1992, to February 1993. Field visits to schools requesting assistance in the preparation of transcripts were conducted in February and March 1993.

### 4.11 Second Foilow-Up Data Collection Results

Tables 4.11-1 through 4.11-2 summarize the data collection results for the NELS: 88 second follow-up study.
Table 4.11-1 NELS:88 second follow-up component survey completion rates by selected characteristics

|  | ```Student sample \\ Completion rates Weighted Unweighted``` |  | Student <br> 12th grade test ${ }^{-1}$ <br> Compiction rates Weighted Unweighted |  | Dropout/Alternative ${ }^{\text {b }}$ <br> sample <br> Completion rates <br> Weighted Unweighted |  | Dropout/Alternative <br> 12th grade test ${ }^{\circ}$ <br> Completion rates <br> Weighted Unweighted |  | School questionnaire ${ }^{d}$ Completion rates Weighted Unweighted |  | Tcacher questionnaire ${ }^{\circ}$ Completion ratos Weighted Unweighted |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 91.0 | 92.5 | 76.6 | 78.8 | 88.0 | 87.6 | 41.7 | 40.3 | 98.3 | 98.2 | 90.8 | 90.7 |
| Participated | 16,842 |  | 13,267 |  | 2,378 |  | 959 |  | 15,409 |  | 9,853 |  |
| Selected | 18,209 ${ }^{\prime}$ |  | 16,842 |  | 2,714 |  | 2,378 |  | 15,695 |  | 10,861 |  |
| School type |  |  |  |  |  |  |  |  |  |  |  |  |
| Public | 94.7 | 95.3 | 76.8 | 78.9 | NA | NA ${ }^{\text {l }}$ | NA | NA ${ }^{\text {l }}$ | 98.4 | 98.4 | 91.1 | 90.9 |
| Catholic | 98.4 | 98.0 | 79.7 | 84.5 | NA. | NA | NA | NA | 96.6 | 96.7 | 87.9 | 89.1 |
| Other private | 94.8 | 95.5 | 73.1 | 75.6 | NA | NA | NA | NA | 98.5 | 97.2 | 88.0 | 90.3 |
| Urbanicity ${ }^{\text {e }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Suburban | 94.4 | 95.2 | 74.9 | 75.7 | NA | NA | NA | NA | 98.5 | 98.2 | 90.4 | 90.1 |
| Rural | 95.5 | 95.5 | 82.4 | 85.3 | NA | NA | NA | NA | 99.8 | 98.0 | 93.2 | 92.8 |
| Region ${ }^{\text {2 }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| South | $\bigcirc 3.4$ | 95.8 | 77.7 | 81.7 | NA | NA | NA | NA | 98.2 | 98.4 | 91.7 | 91.5 |
| Midwest | 96.1 | 95.8 | 78.6 | 80.7 | NA | NA | NA | NA | 98.5 | 98.7 | 92.8 | 93.0 |
| West | 92.9 | 95.4 | 72.2 | 74.2 | NA | NA | NA | NA | 98.7 | 98.6 | 90.4 | 89.3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Asinn/PI | 91.7 | 92.7 | 75.2 | 75.5 | 74.7 | 82.4 | 47.6 | 35.7 | 98.2 | 98.9 | 91.3 | 91.0 |
| Hispanic | 86.6 | 89.8 | 73.9 | 76.6 | 88.3 | 87.5 | 35.6 | 36.1 | 98.8 | 98.9 | 88.6 | 89.0 |
| Black | 88.1 | 90.5 | 74.6 | 77.1 | 84.8 | 83.6 | 37.2 | 38.7 | 98.3 | 98.0 | 87.0 | 88.8 |
| Whito | 93.5 | 94.2 | 77.8 | 80.1 | 89.7 | 89.5 | 44.2 | 42.4 | 98.3 | 98.0 | 91.8 | 91.3 |
| Am. Indian | 90.3 | 86.5 | 74.0 | 74.3 | 97.6 | 95.8 | 51.5 | 49.3 | 98.7 | 98.7 | 83.8 | 84.6 |
| Refused/Missing ${ }^{\text {i }}$ | 28.5 | 33.2 | 22.2 | 31.1 | 55.9 | 61.5 | 23.5 | 25.0 | 97.9 | 97.8 | 95.7 | 91.3 |

- 12th-grade cognitive tost coverago rate for each student whe completed a questionnaire
- Alternative completers could have completed either a student or dropout questionnaire, depending on status during data collection. 350 altornative sample members
- 12th-grade cognitive tost coverage rato for each dropout who completed a questionnairo.
d Second follow-up school questionnairo coverago rato for each student who completed a questionnaire and was enrolled in an eligible contextual school.
Second follow-up teacher questionnairo coverage rate for each student who completed a questionnaire and was enrolled in either a mathematics or science class. 565 unlocatablo cases were assumod Refers to the second follow-up school.
- Not Applicable-Completion rates by school type, urbanicity, and rogion are calculated based on the school a student attonded in the second follow-up. Becauso dropouts are not linked to schools on the public use magnetic tape, it is not possible to calculate combined atudent and dropout completion rates for these subgroips.
Refused/Missing refors only to the status of a sample mombor's ethnicity. It does not refer to samplo mombers who did no participate in the socond follow-up.
Table 4.11-2 NELS:88 second follow-up completion rates for base year-first follow-up panel participants by selected characteristics ${ }^{2}$

- These panel completion rates are the proportion of base yoar-first follow-up completera for whom a second follow-up questionnaire was completed but oxcludes base year nonparticipants. Refor to section 4.3.7 of the NELS:88 Second Follow-Up: Student Component Data File User's Manucal for information on altornative approachos to
F1 and F2 student questionnaire calculating panol completion rates.


## V. Data Control and Preparation

This chapter describes the procedures used to control teacher data before transforming responses from second follow-up questionnaires into a data file. Several procedures were implemented to prepare these documents for data capture, including monitoring the receipt of completed questionnaires, editing completed questionnaires, retrieving missing data, and preparing the documents for archival storage. Data preparation activities spanned the entire length of the NELS:88 second follow-up teacher survey, beginning with tracing and securing school cooperation, through monitoring and machine editing, and ending with the preparation of public use data files.

### 5.1 Monitoring and Receipt Control Procedures

Questionnaire data were tracked and receipted for all respondent populations. Once a teacher questionnaire was returned by a respondent, the completion status of the questionnaire for that teacher was entered into the microcomputer based Survey Management System (SMS). The database identified the status of each teacher questionnaire in the sample and stored the date that data for each respondent was received.

### 5.2 In-house Editing and Data Retrieval

Editing was conducted to review completed questionnaires, to identify problems requiring policy decisions, and to prepare the questionnaires for data entry. After each questionnaire was logged into the SMS, it was edited for missing critical items. Critical items were questions judged as having important policy relevance. A complete listing of critical items appears in Appendix F.

Critical items were retrieved for questionnaires in which responses to one or more of the critical items were missing, illegible, or contained multiple codes when only one was required. Interviewers called respondents and attempted to elicit a response to the missing critical item(s). If an error could not be resolved in this way, then the appropriate code was assigned to the question to indicate missing, multiple, or refused responses.

### 5.3 Data Capture and Archival Storage

Data entry for the teacher questionnaires was performed hrough an optical mark reading procedure by Questar Data Systems, Inc. All teacher questionnaires rore photographed onto microfilm. After the questionnaires were scanned, the booklets were microfilmed and then destroyed. The rolls of microfilmed questionnaires were returned to NORC for archival storage.

## VI. Data Processing of the Teacher Questionnaires

Data processing activities spanned the entire length of the NELS:88 second follow-up teacher survey, beginning with tracing and securing school cooperation, development of the teacher sample, through receipt control and machine editing, and ending with the preparation of public and privileged use data files and user's documentation. This chapter describes the post-conversion steps taken to ensure that coded responses to the second follow-up teacher questionnaire are valid and consistent.

### 6.1 Machine Editing and Data File Preparation

Conventions for editing, coding, error resolution, and documentation adhered as closely as possible to the procedures and standards previously established for HS\&B and NLS-72.

The teacher data were optically scanned and detection of out-of-range codes was completed. The data were converted to machine-readable form, and a raw data tape was generated. Sequences of logical machine edits and visual inspection of the cutput included: resolving inconsistencies between filter and dependent questions, supplying the appropriate missing data codes for questions left blank, detecting illegal codes and converting them to missing data sodes and investigating inconsistencies or contradictions in the data. Frequencies and crosstabulations for each variable were inspected before and after these steps to verify the accuracy and appropriateness of the automated machine sditing processes.

Inconsistencies between filter and dependent questions were resolved in the machine editing process. In most instances, dependent questions that conflicted with the skip instructions of a filter question contained data that, although possibly valid, were superfluous. For instance, respondents sometimes indicated "no" to a filter question and then continued to answer "no" to subsequent dependent items. When a filter question indicated that subsequent questions(s) should have been skipped, the subsequent dependent questions were set to a value of legitimate skip, except for one situation. In the exception, if the dependent questions were answered in a manner that was inconsistent with the filter but consistent within the dependent items, the filter was back edited (changed) and made consistent with the dependent responses. If a multiple response, or if no answer was given to a filter question, the question was assigned the appropriate reserved code ("6" or "8," see below) and all subsequent questions that might have been skipped were processed as if the respondent should have answered them.

The frequency with which responses were recoded to legitimate skip for each skip pattern was closely monitored. Frequency distributions of responses before and after editing were inspected. All filter questions and their respective dependert items were displayed in crosstabulations so that staff could verify the accuracy of the recoding.

After improperly answered questions were converted to blanks, the teacher data were passed through a second step in the editing program that supplied the appropriate reserved codes to fill blank fields. Where a value was not provided by the respondent, a reserved code fills the field. The reserved electronic codes and their meanings are:

> 6=MULTIPLE RESPONSE
> $7=$ REFUSAL
> $8=$ MISSING
> $9=$ LEGITIMATE SKIP

If the field is longer than one column, the right-hand column contains one of the avove codes and the rest of the columns are filled with "9"s. Items with unusually high nonresponse or multiple responses were checked by verifying the data in the questionnaire on microfilm.

The conventions used to assign SAS and SPSS-X variable names are as consistent as possible with HS\&B and NLS-72. In those two surveys, variable names were assigned according to the survey wave in which they are created and the question number. A similar system was developed for NELS:88. For example, the variable name F2T2 9A refers to the second follow-up ("F2") teacher survey ("T"), part 2 ("2 "), question 9, part A ("9A"). When possible, the symbol "_" is used within the teacher survey variable names to separate the questionnaire part number from the question number. A user might otherwise incorrectly interpret the variable name as referencing question 29A, rather than part 2 , question 9 A .

### 6.2 CD-ROM Electronic Codebook

An electronic codebook (ECB) permits PC users to interact with all of the features of a conventional hardcopy codebook and its accompanying documentation. In a very large, complex survey such as NELS:88 with multiple highily elaborated codebook text files, the Compact Disc (CD) medium provides the necessary capacity to carry a tremendous amount of data in a very compact and convenient form. CD-ROM is a form that can be copied to and read by a microcomputer. The information on CDROM is "Read-Only." This feature protects the data on the disk from accidental alterations, such as a user unintentionally writing over the encoded information.

In addition to numerous hardcopy codebooks that accompany magnetic tape releases on NELS:88, ECBs are also now available to users. These permit users to search for variables based on key words and names. The ECB displays question text and frequencies for each variable in order to assist users in deciding which data elements may be useful in planned analyses. The ECB is also a tool for selecting variables for subsequent analysis, writing SAS or SPSS-PC code for file construction of the designated variables, and even generating a codebook of the chosen set of variables.

More detailed information on the features of the NELS:88 ECBs and the survey waves and components for which ECBs are available appears in Chapter VII.

## VII. Guide to the Data Files, Documentation and CD-ROM Electronic Codebooks

Feurteen NELS:88 study components are now available on magnetic tape or CD-ROM (Compact Disc Read-Only Memory) format. Magnetic tape and CD-ROM releases of the NELS: 88 data contain files that are specific to one survey wave and one component, such as the second follow-up student component data. Table 7-1 displays these NELS: 88 products, by study component and by survey year.

The student and dropout data sets are the central units of analysis in NELS:88. Each of the student data files may be examined as an independent entity or may be combined for observation of the maturation of the original student cohort over time. The student and dropout data files released in the second follow-up of NELS:88 may be combined with data from second follow-up surveys of parents, teachers and school administrators. The most powerful analyses are possible when students are viewed in the context of these fundamental influences across the four-year time frame that is now available. The NELS:88 files are designed to be merged and used to examine how differing student outcomes are related to various structural patterns, as measured by parental, teacher and other school influences, and/or the ways in which these change over time.

The contextual data files are dependent upon and subsidiary to the student and dropout files in NELS:88. The contextual data files are not stand-alone samples. The only exception is the base year school file, which is representative of eighth-grade American schools and their principals in 1988. For example, the second follow-up teacher survey is not a representative sample of American teachers, but rather is a sample of selected math and science teachers of the student cohort. Therefore, inferences from the teacher data file cannot be legitimately made if these data are viewed in isolation from the student files.

Several types of sta . nt sample members are included in the files; therefore, the user must take care to select the correct set. Among the types of sample members in the student data set are: 1) students who were added in the first or second follow-ups to freshen the sample; 2) sample members who have participated in one, two or all three waves of the survey; and 3) Base Year Ineligible sarniple members who were found to be eligible and subsequently included in the first and second follow-up surveys of NELS:88. ${ }^{1}$ Eight analytic populations, both cross-sectional and longitudinal, are now represented in the NELS:88 student sample. Different research questions apply to different student populations. In order to choose the correct NELS:88 student sample and produce accurate results, analysts must use the proper sample identification and questionnaire availability indicators as well as the correct statistical weight.

Section 7.1 introduces the reader to statistical software packages that can be used with the NELS:88 data sets and the importance of sample indicators and statistical weights in the production of accurate results. Section 7.2 includes a complete description of the content and organization of the second follow-up teacher data files. Finally, section 7.3 offers an explanation of the hardcopy codebook and an introduction to the electronic codebooks.

[^20]
### 7.1 Basics for Analyses: Second Follow-Up Questionnaire and Sample Indicators

The method for naming variables in NELS:88 follows a few simple patterns. "F2" refers to the second follow-up, "F1" refers to the first follow-up, and "BY" refers to the base year. An "F2" in the prefix means that the variable has been created in the second follow-up for second follow-up sample

Table 7-1
NELS:88 components and survey waves for which both magnetic tape and CD-ROM products are available

## Base Year

## Student

Dropout
School
Teacher
Parent
Transcript

## First Follow-Up

Number of Variables on Public Use Version

411
Not Applicable*
212
239
332
Collected in
Second Follow-Up ${ }^{\text {c }}$

695
562
$\div 34$
463
Not Collected ${ }^{\text {b }}$
Collected in Second Follow-Up ${ }^{\text {c }}$

## Second Follow-Up

| Student | Yes | 796 |
| :--- | :--- | :--- |
| Dropout | Yes | 574 |
| School | Yes | 429 |
| Teacher | Yes | 421 |
| Parent | Yes | 424 |
| Transcript | Yes | $--{ }^{-c}$ |

- Since by definition dropouts could only be identified and studied after the initial round of the survey, there is no base year dropout component.
b The parent component was only conducted during the base year and second follow-up.
- Transcripts collected during the second follow-up span the entire high school career. The transcript data are available in restricted use form only. The restricted use transcript file includes 236 studentlevel variables and 251 course-level variables.
members. This is an important distinction since some variables that measure the same concept have been created for data sets in more than one round of the survey. In addition, if new information becomes available--for example, for students who have not heretofore participated in NELS:88-certain ciassification variables are revised to reflect this new information. The riore recent the creation of a composite, the more likely that it contains the most accurate values.

Variable names designated for the second follow-up teacher files begin with "F2T" (second follow-up teacher) and indicate the part (1,2,3 or 4) of the questionnaire, as well as the question number within that part. For example, F2T3_10C, is question 10C from part 3 of the teacher questionuaire. The delimiter "_" separates the part number from the questionnaire item number. Exceptions to this naming convention are the four variables in the identification section: STU_ID (student ID), $\mathrm{F}_{2} \mathrm{TCH}$ _ID, F2SUBJCT, and F2CLS_ID (see section 7.2.1 below for more information on these key variables).

The procedures recommended for analysis of NELS:88 data with SAS or SPSS-X are outlined in Appendix D. Both the magnetic data tape releases and the CD-ROM media include files that contain the appropriate control cards for each of these statistical packages. Analysts who wish to create an SPSS-X system file from a SAS system file (or vice-versa) can do so and should seek suppori from their own computer support in order to obtain the necessary information.

Questionnaire Indicators and Statistical Weight. One of the first steps to take before running statistical analyses is to select the proper participation flags and weights. Relevant flags and weights are found on all component files: student, d:opout, school teacher, and parent files. NELS:88 data files are designed to be used as weighted data sets in all analysis, with teacher data designed to be linked to the student file. The complexity of the sample design of NELS: 88 virtually ensures inaccurate results if the data are analyzed on an unweighted basis. Clustering, multistage selection, and disproportionate sampling all contribute potential bias and various degrees of unreliability, which can be avoided by using the weights provided to analyze specific subsets of the sample. Sampling weights are discussed in detail in Chapter III. ${ }^{2}$

When the user combines a sample indicator with the appropriate weight, population estimates are produced. In order to accommodate contextual analyses, a special indicator for selection of the contextual sample, F2CXTFLG, has been constructed. It is the partner to the cross-sectional statistical weight that has been constructed for the contextual sample, F2CXTWT, and the two variables, both of which are included on the teacher file, should be used together. The teacher flag, F2TEQFLG, identifies the students in the contextual sample for whom teacher data are available on the second follow-up teacher file.

F2CXTFLG use for identifying sample members enroiled in an eligible contextual school (included in the school administrator and teacher components) and sample members in these schools who were also student participants.
$0=$ Sample member is not a member of the contextual components sample
$1=$ Sample member is a member of the contextual components sample and completed a second follow-up student questionnaire

[^21]$2=$ Sample member is a member of the contextual components sample but did not complete a second follow-up student questionnaire

F2CXTWT
use for producing weighted student contextual component statistics, in conjunction with either cross-sectional or longitudinal student analyses that also involve school administrator and/or teacher data. ${ }^{3}$

F2TEQFLG The teacher file includes student participants in the contextual sample regardless of whether or not the student received a teacher report. F2TEQFLG allows analysts to select the students on the file for whom teacher data are available. The values of F2TEQFLG are:
$0=$ The student was eligible for a teacher report, but student's teacher did not complete a teacher report for that student
$1=$ A teacher report is available for the student on the teacher file
$2=$ The student was not eligible for the teacher survey because the student was not enrolled in a mathematics or science course

Additionally, Figure 3-1 in Chapter III illustrates the status of NELS:88 longitudinal sample members from 1988 to 1992 and includes the numbers of these sample members for whom teacher data is available in the second followup.

Longitudinal Analyses with Teacher Data. Although F2CXTWT can be used for cross-sectional analyses of second follow-up teacher data with the student data, a contextual panel weight has not been constructed for NELS:88. In instances where there is an analyzable population of interest for which no specific weight has been produced, some existing weights may provide reasonable approximations. Refer to Chapter III for a complete discussion of F2CXTWT and the other NELS: 88 second follow-up weights.

### 7.2 Content and Organization of the Teacher Public Use Data File

The teacher public use data file consists of 15,695 records. There is one record for each student-teacher-subject combination. Records for student nonparticipants are not included on the second foliowup teacher data file. Variables on the data records that are drawn from the teacher questionnaire are ordered in the same sequence as they appear in the printed questionnaires. Appendix E contains a copy of the second follow-up teacher questionnaire. The questionnaire information and respondent results are also replicated in the hardcopy codebook that is displayed in Appendix I. The record layout that appears in Appendix H shows the order of the data elements in each record. Each item is referred to by its SAS (SPSS-X) variable name as defined in the controi cards provided with the data file.

Four files are provided for the second follow-up teacher component. They are:
3. Analyses that use 1992 teacher data with 1988 eighth graders in 1992 or with 1990 tenth graders in 1992 could utilize F2CXTWT to obtain an approximate estimate. Analysts may want to compare results from this weight with those produced by alternative approximations generated by the transcript-panel weights.

1. The second follow-up raw teacher data file with the following segments arranged in the indicated order:
a. Identification Information (positions 1-19)
b. Student Information from Part I of the questionnaire (positions 20-46)
c. Class Information from Part II of the questionnaire (positions 47-173)
i. Ratings common to all subject areas from Part II of the questionnaire, (positions 47-94)
ii. Subject specific class ratings from Part II of the questionnaire (positions 95173)
d. Teacher Background and Activities Information from Part III of the questionnaire (positions 174-292)
e. School climate information from Part IV of the questionnaire (positions 293-465) f. Constructed weights, flags, and composite variables including F2CXTWT, F2CXTFLG, and F2TEQFLG (positions 466-478)
2. SPSS-X control cards
3. SAS control cards
4. SAS system file

### 7.2.1 Identification Codes

The first variable on all of the raw data files, STU_ID, is a unique seven-digit student identification code. This number remains with the student or dropout throughout NELS:88. To link student records across two or more waves of the survey (1988, 1990, and 1992) or between survey components (student, dropout, teacher, school, parent, and transcript), analysts should use STU_ID.

The student ID code consists of a five-digit base year school ID followed by a two-digit student code. Though both sets of numbers were randomly assigned to maintain confidentiality, the IDs contain embedded linking, stratum and PSU information. ${ }^{4}$ Students added to the first or second follow-ups through freshening were linked to a core sample member. The base year school ID of the linked student was used as the root of the added student's ID. Thus, in all cases, the student ID links the students and dropouts to a base year school.

On the second follow-up public use teacher file, the seven-digit student identification number (STU_ID) is followed by three additional identifiers:

F2TCH_ID F2TCH_ID is a four-digit sequential identification code for the second follow-up teacher respondents. F2TCH_ID allows analysts to identify which students with teacher data were instructed by the sane teachers. A school identification code was imbedded in the first follow-up teacher identification code and a separate school ID is included on second follow-up restricted use teacher file. However,

[^22]in order to maintain confidentiality, a school ID number is not included on the second follow-up public use teacher file.

## F2SUBJCT

- 2 CLS_ID

F2SUBJCT is a one-digit code which indicates the subject area of a student's teacher report. The value ' $M$ ' indicates that the teacher instructed the student in a mathematics class and that the student's teacher was asked to complete the questions about the student's mathematics course ' $S$ ' indicates that the teacher instructed the student in a science course and that the student's teacher was asked to complete the questions about the student's science course. Of the teachers who reported on more than one NELS:88 student, a small percentage of them reported on different students in different subject areas. For these teachers, the value of F2SUBJCT on a student-teacher record is still determined by the subject area in which the teacher instructed that student.

F2CLS_ID is a two-digit code which allows analysts to identify which students instructed by the same teacher were enrolled in the same class. The teacher data are organized as one record per student which contains the tercher's report on the student, the course data for the student, and the information on the teacher' background and school characteristics for the student. About 25 percent of teachers instructed more than one student cligible for the teacher survey. If, for example, a teacher instructed two NELS:88 students in one class and two different students in another class, F2CLS_ID would indicate which students were enrolled in the first versus the second class.

Values 91 and 92 of F2CLS_ID identify seven students for whom a teacher report was collected; however, the class information section, part 2 of the questionnaire, was missing for these students. Value 91 indicates that the student's teacher report was from a mathematics teacher despite the missing class information section, and value 92 indicates that the student's teacher report was from a science teacher despite the missing class information section.

### 7.2.2 The Teacher Public Use File Record Layout

The logical record length, block size and record layout for the second follow-up teacher component data file is in Appendix H. The layout shows how variables are ordered within the records for each student record on the file. Items taken from the hardcopy questionnaire appear on each data record in the same order as they appear in the second follow-up teacher questionnaire contained in Appendix E.

The variables in the record layouts are identified by the SAS and SPSS-X variable names that have been designated for each data element. No more than eight characters may comprise a SAS or SPSS-X variable name. The first two characters of the variable names from the parent questionnaire indicate the survey wave in which the variable was created. Thus, BY in the prefix of the variable name indicates a base year questionnaire item, while F2 in the prefix of the name refers to the second followup. The third character in the variable name represents the NELS: 88 component, with "T" for the teacher component, " S " for student, " D " for dropout, " C " for the school component, and so on. F2T refers to the second follow-up teacher questionnaire as the source document for the second follow-up teacher survey. "F2T" is followed by the section namber of the questionnaire from which an item is taken. The naming scheme for items that report teacher responses is completed by the suffix of the
variable name, which consists of the question number and part. For example, F2T4 4A is question 4, part A from the fourth section (teacher background) of the second follow-up teacher questionnaire.

### 7.2.3 A Note about the Teacher Data File and Codebook

The teacher data file is structured at the level of student-teacher pairs. The objective of the teacher survey was to obtain a teacher report for each student eligible for the teacher survey. The frequencies displayed in the codebook represent distributions of student-teacher pairs. Each studentteacher record contains the student ID number, the teacher's rating of the student, the class information about the course in which the teacher instructed the student, and the teacher's report on the school climate and the teacher's background. If users choose to organize results at the course-level or at the teacherlevel, then the resulting Ns will consequently be different from those that are shown in the NELS:88 codebooks. Analysts should be aware that the teacher data organized at the level of courses or at the level of teachers do not constitute valid, stand-alone probability samples.

Because the student sample members constitute the basic unit of analysis in the NELS: 88 study design, a number of special considerations need to be taken when analyzing the teacher data. In this section considerations for teacher file usage are listed for the base year, first follow-up, and second follow-up teacher surveys. Table 7.2.2-1 highlights some key differences between the teacher surveys
in the three rounds of NELS.88.

## Special Considerations for Base Year Teacher File.

- The base year teacher file is made up of individual student-teacher records. Each record includes a teacher's rating of a student, the class information for the course in which the teacher instructed the student, and the teacher's report on the teacher's background and on the school characteristics.
- Although the base year teacher file is constructed at the level of student-teacher pairs, class-level and teacher-level data sets can be created using SAS and SPSS-X cards provided with the teacher data file. Refer to section 1.1.3 of the Base Year: Teacher Component Data File User's Manual for additional information about creating these data
sets.
- Over 95 percent of students were eligible for two teacher ratings because they were enrolled in both courses in their assigned combination of subject areas. The student is the appropriate unit of analysis for use with the teacher data. For students with ratings from two teachers, analysts may need to create two sets of variables, one set for the first student-teacher record and one set for the second student-teacher record.

Because class information pertains to one of four different subject areas for each teacherstudent record on the teacher file, analyses using BY2_17 to BY2_29 require sorting the sample by subject area as indicated by the variable, SUBJECT.
Table 7.2.2-1 NELS:88 Base year, first follow-up, and second follow-up teacher data filles: key similarities and differences

|  | Teachers per student | Level of data presentation | Subject combinstions | Subject substitutions | Term of teacher selectexil | Key linking variables |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Base Year | up to 2 teachers per student and no more than one teacher per subject area | one record per teacher-student pair: up to two records for each student | random assignment to math-English, mathsocial studies, sciznceEnglish, science-social studits | none | spring term | STU D, <br> SCH ID, <br> SUBJECT, <br> TEACH, CLASS |
| First <br> FollowUp | up to 2 teachers per student | teacher-student pairs | Each student's base year subject combination (mathEnglish, math-social studies, scienceEnglish, science-social studies) was implemented when possible; other subject combinations sometimes occurred. | If student not enrolled in one or both base year subjects, thin up to two substitutions used. | spring term | STU ID, TCH_ID, F1SCH_ID, F1subict, CLS_ID |
| Second FollowUp | up to 1 teacher per student | teacher-student pairs | math or science only, depending on student's base year subject area combination | none | mostly fall term to articulate with student data collection in early 1992 | STU_ID, F2TCH_D, F2SUBICT, F2CLS_ID |

## Special Considerations for First Follow-Up Teacher File.

- The appropriate level of analysis is the student. Unlike the base year teacher file, SAS and SPSS-X cards which facilitate creation of course-level and teacher-level data sets have not been provided. These data sets can still be constructed by using CLS_ID and TCH_ID. Users are advised that teacher and course-level data sets do not constitute valid, stand-alone probability samples.
- Eighty-nine percent of students received two teacher ratings in the first follow-up. When possible the teacher reports were collected in the same subject combination that was used for the student in the base year. If a student was not enrolled in both base year subjects, then up to two subject substitutions were implemented for the student. The results is that a total of ten different subject area combinations appear on the first follow-up teacher file. Refer to section 3.2 in the First Follow-Up: Teacher Component Data File User's Manual for the substitution rules and a list of the ten combinations subject areas.
- For the 89 percent of students who received two first follow-up teacher ratings, analysts may need to create two sets of variables, one for the first teacher and one for the second teacher.
- Unlike base year nomenclature, the first foliow-up variable names in the class information section of the questionnaire indicate when a question about the teacher's course is subject specific. For example, the ' $E$ ' in F1T2E19A indicates that the teacher reported on a NELS:88 student in an English class and that this question applies to that English class.
- Students who were freshened in the first follow-up were assigned the same base year subject area combination as their linked partner, and if they were not enrolled in one or both of the assigned subject areas, subject areas were substituted for them using the same substitution rules that were used for all first follow-up studenis.
- Teacher frequencies in the First Follow-Up Teacher Component Data File User's Manual were generated at the student level using the studerit weight and multiple teacher reports per student. Teacher frequencies in the Base Year Ieacher Component Data File User's Manual were generated at the teacher level (in addition to the student and course levels); hence, weighted percents were not reported. For the combined base year, first follow-up, and second follow-up electronic codebook, the NELS: 88 base year procedure--which does not utilize the student weight to produce teacher item response category percents--was consistently employed for the presentation of the 1988 to 1992 rounds.


## Special Considerations for Second Follow-Up Teacher File.

- Only one teacher report was collected for each studc.at enrolled in either a mathematics or a science class. For students who were enrolled in both mathematics and science, either mathematics or science was selected to provide maximum comparability with the student's selected subject combination in the base year. No additional subject substitutions were implemented.
- To avoid collecting data from twelfth graders near the end of their senior year when they were more likely to disengage from their high school carcers, most in-school data
collection sessions were scheduled for January through March of 1992. To ensure that the collection of teacher reports occurred close to student data collection and administration of cognitive tests, teacher data collection began in February 1992. The teacher questionnaire was collected from students' fall term teachers at schools with inschool data collection sessions through March, lecause the fall term teacher would have greater exposure to the student and be more able to provide a complete assessment of the student than the spring term teacher would have been ahle to provide. However, for the 8.1 percent of schools with in-school data collection sessions from April through June, the spring term teacher was surveyed.
- In the second follow-up, variables in the class information section of the survey instrument do not sposify whether a question is for a teacher instructing a NELS:88 student(s) in a mathematics or science class. Analyses involving F2T2_14 to F2T2_26, the subject-specific questions in the class information section, should be performed in conjunction with the variable F2SUBJCT which identifies the subject area of a student-teacher record.


### 7.2.4 Packaged Statistical Programs

The procedures recommended for analyses of NELS:88 data with SAS are outlined in Appendix D. SPSS-X can also be used and both the magnetic data tape releases and the CD-ROM media include files that contain the appropriate control cards for each of these statistical packages. Analysts who wish to create an SPSS-X system file from a SAS system file (or vice-versa) can do so and should seek support from their own computer support facilities in order to obtair the necessary information.

### 7.3 Guide to the NELS:88 Codebooks

The codebooks that have been provided for each wave of the survey fully describe and assist interpretation of each of the variables on each of the data files. The codebooks summarize all key information for each data elenient, including:

- the variable name, question number and content;
- the tape position and format on the file for each variable;
- valid and/or missing responses to each item; and,
- the unweighted frequency counts, percents, and weighted percents for each rerponse
category.

Two related types of codebooks are provided for NELS:88-a hardcopy and an electronic codebook (ECB). Both forms of the codebook chronicle the details analysts need to interpret properly the results of each item: the exact wording of the question that was presented to the respondent, the distribution of all legitimate answers among survey participants, the location and type of data element for each variable on the file, as well as names and labels provided for use with statistical software. For some items the basic presentation is supplemented with additional notes about using the data. The first type of codebook is the hardicopy codebook included in the NELS: 88 data user manuals. Hardcopy codebook displays are described and illusirated in section 7.3.1.

The second type of codebook is the NELS:88 electronic codebook (ECB). The electronic print files that are produced by the hardcopy codebook software are used as the foundation (the input files) for the ECB software. ECBs provide several advantages. First, the NELS:88 ECBs reside on CD-ROM (Compact Disc Read-Only Memory) and, given the right equipment and software, can be accessed by and copied to a user's personal computer. The NELS:88 data sets have also been released on CD-ROMs, a far more concentrated medium for archiving information than magnetic tapes. The PC mode is both more convenient and far less expensive than mainframe operations for most users. Second, ECBs permit users to scroll through the same variables and survey results found in all versions of the codebocis electronically. In addition, analysts interact with the ECB software to select only those data elements needed for the user's specific analyses. The result is a user-controlled subset of the variables that is fully equipped with the tools required for statistical analysis. The labor-intensive steps that were formerly required to accomplish these preliminary steps to analysis, such as typing in exact variatle names, have been rendered obsolete by the ECB system. Additional information on ECBs is given in section 7.3.2.

### 7.3.1 Hardcopy Codebooks in NELS:88 Data User's Manuals

Both the hardcopy and the ECB versions of the NELS: 88 codebooks contain the basic information available on each variable in the NELS: 88 data sets. Therefore, even those readers who plan to use ECBs should be familiar with the material in this subsection in order to take full advantage of the ECB.

Figure 7-1 is an illustration of the information provided in the codebooks for each data eiement. Each portion of this example is numbered and explained below.

Figure 7-1
An entry in the teacher public use codebook.

## 1) Question 4_6

2) Tape Pos. 303-303
3) Format: I1
4) F2T4_6 (5) ER\&PLOYMENT STATUS IN THIS SCHOOL/SYSTEM
5) What is your employment status in this school or school system?

| 7) | RESPONSE | 8) CODES | 9) FREQ | PER- <br> 10) CENT | WGTD <br> 11) PCT |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Regular full-time position. | 1 | 8923 | 56.9\% | 97.8\% |
|  | Regular part-time position | 2 | 139 | 0.9\% | 2.0\% |
|  | Substitute teacher | 3 | 19 | 0.1\% | 0.2\% |
| 12) | RESERVED CODES: <br> No teacher quex Missing |  |  |  |  |
|  |  |  | 5842 | 37.2\% |  |
|  |  | 8 | 772 | 4.9\% | (MISS) |
|  | Totals: |  | 15695 | 100.0\% | 100.0\% |

Figure 7-1 (cont.)
An entry in the teacher public use codebook

## Explanations:

1. Question number: The question number shown includes the teacher questionraire part number and item number and is taken directly from the teacher questionnaires. Iems such as the statistical weight have variable names that reflect their content.
2. Tape position: This item gives the starting and ending tape position of each variable on the data
tape.
3. Variable format: This item indicates the type of variable, its width, and the number of positions following the implicit decimal point, if any.
4. SAS and SPSS-X variable name: Each variable in the data set is identified by a unique SAS and SPSS-X variable name. In the teacier component data sets, when space allows, the survey wave (F2) and the questionnaire part and item number are used in the variable name. Users should refer to the variable by its SAS (SPSS-X) variable name in any computing procedures, rather than by its question number.
5. SAS (SPSS-X) variable label: A short variable label appears after the variable name. This label is the same as the variable label in the SAS (SPSS-X) data definition cards on the tapes or CD-
ROM.
6. Original question wording: This reproduces the exact question wording as it appeared in the questionnaire.
7. Response categories: This item provides either the original response categories in the case of questionnaire items or the recoded or constructed response categories for special variables such as a statistical weight. For display in the codebooks, continuous or very sensitive variables have been recoded to collapse all valid values into one or a few response categories. This allows the codebook tables to show the frequency counts, unweighted percentages, and adjusted weighted percentages for continuous variables without printing each distinct value that the variable can take. These value labels are not the same as those on the SAS (SPSS-X) data definition cards. Condensed value labels that do not cause truncation problems are provided with the data definition cards.
ð. Response codes: This item provides the actual numeric codes triat appear on the data tipe in the tape position specified (except for continuous variables, where the actual values that appear on the tape have been recoded to produce the frequency counts and percentages). Certain codes, discussed below, are reserved to indicate missing data, legitimate skips and so forth.
8. Frequency counts: This item shows the unweighted frequency counts for all records that were processed, including records that have missing data codes, legitimate skips, and so forth.
9. Unweighted per: ntage frequencies: This column displays the frequency counts of item F2'T4_6 as percentages. All records that were processed are included.

Figure 7-1 (cont.)
An entry in the teacher public use codebook
11. Weighted percentage frequencies: This column displays percentages based on response counts weighted up to the relevant population. Cases with reserved code values are excluded from the computation.
12. Reserved codes: In this data set cartain codes, termed "reserved codes" have been chosen to always stand for certain situations. These reserved codes and their interpretations are:
$6=$ multiple response more than one response where only one response was called for
$7=$ refusal $\quad$ respondent refused to answer an item or refused to resolve a multiple response where only one was called for, either at the time of que itionnaire administration or during telephone follow-up.
$8=$ missing data data that should be present for this respondent is missing, but respondent did not necessarily refuse to provide data
$9=$ legitimate skip $\quad$ because of responses to preceding questions, data for this item should not be present for this respondent; that is, the value is legitimately missing

These reserved codes are the same as those used in the NLS-72 and HS\&B surveys. The codes as listed above apply to variables with single-column data fields. For variables with fields sreater than one column, the left-most columns are filled with 9's (e.g., 96, 996, 9996).

Note that in the example shown in Figure 7-1, sample members who were in the contextual components sample but who were not enrolled in a mathematics or science course at the time of second follow-up data collection are shown on a separate line from other missing cases.

Finally, additional comments and notes may be included and displayed below the standard information in the codebooks described in Figure 7-1. These comments alert researchers to the potential for nonresponse bias, a relation to another similar variable or composite, a recoding of a continuous variable in order to improve the codebook presentation, or to recodes or suppressions of sensitive data for confidentiality purposes.

### 7.3.2 The NELS:88 Electronic Codebook System (ECB)

The electronic codebook combines the convenience, simplicity and cost efficiencies of personal computers (PCs) with CD-ROM technology. Thousands of NELS: 88 variables, the extensive statistical software programs and commands that transform the data in analyses, and electronic versions of data user manuals reside on a single CD-ROM. All are accessible with the MS-DOS operating system and statistical and word processing software that the user is likely already accustomed to working with on his or her own PC; however, a user must already have access to PC-SAS or SPSS-PC. Virtually all steps that must be undertaken prior to actual analysis on the data files may now be conducted within the ECB.

The ECB software is designed to acquaint the user with the available survey measures and responses by means of on-line, fully documented codebooks. Users may browse through the documentation, searching on both variables names, labels, and question text to find items that are suitable for the research question at hand. The final version of the ECB includes weighted and unweighted frequency distributions. Users can move quickly in the ECB between questionnaire items, sample indicators, composite variables, or between components of the study and may select variables of interest, up to 255 variables per session. A window shows how many variables have been tagged at any one time. The process culls a set of variables, and only those variables, that are appropriate to the user's own research issue. Since variable names and labels are already in electronic form on the ECB, onerous tasks (such as typing in this information) that were formerly necessary are eliminated. The ECB permits users to write SAS-PC or SPSS-PC program code and/or command statements in order to construct system files of the selected variables. Finally, a print file of a codebook containing the frequencies for only the tagged items is another ECB option. The print file may subsequently be used to generate individualized hardcopy codebooks of the selected variables, providing a convenient reference during subsequent data analyses.

In order to use the new ECB technology, the following are required:

- a NELS:88 Compact Disc;
- a CD-ROM reader, used to read or copy the NELS:88 CD-ROM to a personal computer;
- an IBM-compatible personal computer (PC), mininally a 286 system;
- up to 10 Mb space on the PC for the full ECB system; and, ${ }^{5}$
- a substantial amount of space for the data files. Although up to 165 Mb is required for all publicly-available base year, first follow-up and second follow-up data sets, it is not necessary to copy and/or analyze all of these files simultaneously.

The NELS: 88 Compact Disc includes instaliation precedures, programs and files required by the codebook system, the raw data files and data user manuals (in WordPerfect format).

Different Versions of the ECBs. Table 7.3.2-1 lists three versions of the NELS: 88 ECBs that have been created for NELS: 88 .

The base year school sample is representative of all schools in the nation enrolling eighth graders in 1988. On the first follow-up ECB which includes base year files, information reflecting these schools has been released at two levels of analysis: aggregated at the level of the school (one record for each school), as well as distributed at the level of the students who attended those schools (one record for each such student). However, the second follow-up ECB only includes the base year school data at the level of the student.

The 1994 release of the first follow-up data contains minor adjustments to the cases that are included on the files. For example, sample members found to have been sampled into the study in error

[^23]have been deleted, and base year ineligible students found to be eligible in the first or second follow-up have been added. A few of the first follow-up variables have also been updated for the second follow-up release of the first follow-up data. Such adjustments are possible in longitudinal studies as new information becomes available or technical advancements become feasible.

Although Table 7.3.2-1 includes both the interim and final versions of the second follow-up CDROM, this manual primarily discusses the contents of the final version of the second follow-up CD-ROM. The final second follow-up ECB encompasses thirteen of the major component files through the second follow-up of NELS:88. (The fourteenth major component dataset, the transcript files, appears on the final restricted-use CD-ROM that is not in the ECB format.) Cognitive test variables on all three waves of the survey have been refined and the first follow-up cases have been enhanced by the deletion of ineligibles and the addition of survey-eligible BYI sample members. Both the restricted use and public use CD-ROMs display a weighted and an unweighted frequency window.

Table 7.3.2-1
Three versions of the NELS:88 electronic codebooks

## ECB Version

First Follow-Up ECB

## Survey Waves and Components

base year, first follow-up
(all components)
base year, first follow-up, and second follow-up, (student and dropout)
base year, updated first follow-up, and second follow-up (student, dropout, school, parent, and teacher) ${ }^{6}$

## User Version

public use only
public use only
public use and restricted use

[^24]A number of restricted-use ASCI files are also available on a separate CD-ROM; these files are not in electronic codebook format. These files include 1) the transcript component data file, data file user's manual, and files of SAS and SPSS control cards for transcript data, 2) all first follow-up and second follow-up School Effectiveness Study data files and control cards, 3) the second follow-up early graduate student supplement, 4) the cognitive test item file which is also on the restricted use CD-ROM that contains the ECB, 5) the expanded sample file, and 6) selected zip code-level community contextual variables drawn from the 1990 Census files for NELS: 88 schools. Contents of this CD-ROM are more fully described in the NELS: 88 Second Follow-Up Final Technical Report.

Magnetic tape versions of the public use data can be ordered from the U.S. Department of Education, Information Technology Branch at (202) 219-1522. The NELS:88 public use data on ECB/CD-ROM, which includes documentation for the ECB, can be ordered by calling Peggy Quinn at (202) 219-1743. The ECB is a qualitative advance over older approaches to complex data sets. The ease with which the pre-analysis phase is handled by the ECB is expected to increase both the number and types of users drawn to the NELS: 88 database and, consequently, the variety of research topics addressed. Additional development of the ECB concept is expected to add useful enhancements. Critiques and suggestions on the ECB, the hardcopy codebook and other elements of the NELS: 88 data user manuals are welcome. Please address your comments to:

Peggy Quinn<br>U.S. Department of Education<br>Office of Educational Research and Improvement<br>National Center for Education Statistics<br>555 New Jersey Avenue, N.W.<br>Room 410H<br>Washington D.C. 20208<br>Fax (202) 219-1728

NELS:88 restricted use data on magnetic tapes and on CD-ROM are available at no charge on a restricted loan basis to individuals and/or institutions that obtain an approved licelise agreement from NCES. To request a license agreement, the individual and/or institution must provide the following information:

- The title of the survey to which access is desired.
- A detailed discussion of the statistical research project that necessitates accessing the restricted NCES survey data.
- The name and title of the most senior official having the authority to bind the organization to the provisions of the license agreement.
- The name and title of the principal project officer who will oversee the daily operations.
- The number, name, and title of professional and technical staff who will access the survey data base. Each professional or technical staff member with access to the data is required to sign and have notarized an affidavit of nondisclosure.
- The estimated loan period necessary for accessing the NCES survey data base.

The desired computer product specifications, such as medium (9-track tape, CD-ROM, PC diskette), code convention (ASCII, EBCDIC, SAS), etc.

To obtain further details and a license agreement form please write to:
Alan W. Moorehead
Data Security Officer
Statistical Standards and Methodology Division
U.S. Department of Education

Office of Educational Research and Improvement
National Center for Education Statistics
555 New Jersey Avenue, N.W.
Room 408
Washington D.C. 20208
ph. (202) 219-1920

## APPENDICES

Appendix A

## NELS:88-Related Data Files Available from the National Center for Education Statistics

## Studies and Files Related to NELS:88

In addition to the core sample and survey described in the main text, several other supplemental components were undertaken and data files generated under the auspices of NELS:88. In the base year survey, these included: several state augmentations; a supplement of hearing-impaired students, funded by Gallaudet University; a supplement of Reformed Christian schools that are members of the Christian Schools International Organization, funded by the Barnabas Foundation; and the NELS:88 Enhancement Survey of Middle Grades Practices, funded by the Office of Research in the Office of Educational Research and Improvement (OERD), through the Johns Hopkins University Center for Research on Effective Schooling for Disadvantaged Students (CDS). The first follow-up wave of NELS:88 also included supplemental components: the state augmentations, continued from the base year; the School Effectiveness Study, supported by funds from the John D. and Catherine T. MacArthur Foundation, and by NCES; and the Base Year Ineligible study (BYI), also sponsored by NCES. The second follow-up wave of NELS:88 included continuations of the base year and first follow-up state augmentations; the school effectiveness study; the continuation of the first follow-up Base Year Ineligibles study; and the continuation of the Christian schools supplement. These auxiliary data files greatly expand and enrich the analytic uses of the study.

In the base year, the NCES-sponsored core sample of 1,052 participating schools and 24,599 participating students was increased to 1,242 participating schools and 28,397 participating students, respectively, as a result of the state augmentations and Christian schools supplements. The first follow-up School Effects Augmentation added some 6,400 students to the initial base year retained sample of 21,474 students. The second follow-up added over 1,300 SES students to replace students lost due to attrition (such as transfers and dropouts).

Data for the state augmentations and other supplements discussed below do not appear on the NCES public release files for NELS:88.

## Christian Schools Supplement

A sample of Reformed Christian schools that are members of the Christian Schools International (CSI) Organization was drawn to supplement the NELS: 88 base year school sample. The sample was selected from CSI schools with probability proportional to eighth-grade size. Two disproportionately large school units were double-sampled. Of the initially contacted 58 schools, 41 schools agreed to participate. (Due to the double-sampling of the two schools, the number of sampling units was 43.) Students, parents, teachers, and school administrators were surveyed. Students completed both the cognitive test battery and the questionnaire during the in-school survey sessions held in their schools. Base ycar sample members and their parents were surveyed again in the second follow-up.

## State Augmentations and Supplements

In an effort to enhance the statistical precision of their state samples, four states sponsored sample augmentations in the base year by adding schools and students in their states. Three of these states also sponsored instrument supplements in the form of additional questions pertaining to policy issues of interest to their states.

Three of the four states which augmented their samples in the base year continued to provide funds in the first follow-up for following and collecting data for the initial base year state augmentation samples which were retained in the first follow-up, and two states continued to sponsor instrument supplements in the first follow-up. The second follow-up continued the augmentation supplements in these two states.

## Hopkins Enhancement Survey of NELS:88 Middle Grades Practices

The Survey of Middle Grades Practices enhanced the NELS:88 base year school questionnaire by collecting new information to monitor middle grades reform in the schools attended by NELS: 88 eighth graders. The questionnaire for this supplemental survey was designed by the Center for Research on Effective Schooling for Disadvantaged Students (CDS) of the Johns Hopkins University and the data collection was conducted by NORC. The school principals who provided base year information in the NELS:88 school questionnaire were asked to participate in this enhancement survey between late October 1988 and February 1989. The enhancement survey augmented the information in the base year school questionnaire with additional information on school organization, guidance and advisory periods, rewards and evaluations, curriculum and instructional practices, interdisciplinary teams of teachers, transitions and articulation practices, involvement of parents, and other practices recommended for middle grades r$r$ form.

Included in the enhancement survey was an alternative version of an item on classroom organization. This item from the Hopkins Enhancement Survey data was appended to the base year school file. It should be noted that the original question on the organization of classroom instruction (see base year school codebook, BYSC18, in the NELS: 88 Base Year: School Component Data File User's Manual was asked during the 1987-1988 school year, while the correction item was asked during, and references, the 1988-1989 school year.

## Past Studies and Data Files Related to NELS:88 Available from NCES

Data from the earlier NCES longitudinal studies--NLS-72 and HS\&B--may also be of interest to users of the NEL.S:88 data. These data sets are of special interest for researchers interested in crosscohort comparisons between the sophomores of NELS:88 first follow-up (1990) and HS\&B base year (1980), and, in the future, comparisons of the 1992 NELS: 88 seniors and the HS\&B sophomore and senior cohorts in 1982 and 1980, and NLS-72 seniors in 1972.

In addition to the core surveys for HS\&B and NLS-72, described in Chapter I, records studies were undertaken, including the collection of the high school transcripts ${ }^{1}$ of the sophomore cohort and the collection of postsecondary education transcript ${ }^{2}$ and financial aid data for the seniors. Data files for these studies and other HS\&B data, such as parent surveys, school surveys, teacher comments, etc., are

[^25]described below. Users manuals or other forms of documentation are available from NCES for all the data files. These auxiliary data files greatly expand the analytic capabilities of the core data sets, and researchers are encouraged to become familiar with them.

## HS\&B Base Year Files

The Language File contains information on each student who, during the base year, reported some non-English language experience either during childhood or at the time of the survey. This file contains 11,303 records (sophomores and seniors combined), with 42 variables for each student.

The Parent File contains questionnaire responses from the parents of about 3,600 sophomores and 3,600 seniors who are on the Student File. Each record on the Parent File contains a total of 307 variables. Data on this file include parents' aspirations and pians for their children's postsecondary education. The NELS:88 Second Follow-Up: Parent Component Data File User's Manual contains a crosswalk between the items included in the HS\&B parent surveys and the NELS: 88 base year and second follow-up parent surveys.

The Twin and Sibling File contains base year responses from sampled twins and triplets; data on non-sampled twins and triplets of sample members; and data from siblings in the sample. This file ( 2,718 records) includes all of the variables that are on the HS\&B student file, plus two additional variables (family ID and SETTYPE--type of twin or sibling).

The Sophomore Teacher File contairs responses from 14,103 teachers on 18,291 students from 616 schools. The Senior Teacher File contains responses from 13,683 teachers on 17,056 students from 611 schools. At each grade level, teachers had the opportunity to answer questions about HS\&B-sampled students who had been in their classes. The typical student in the sample was rated by an average of four different teachers. Preliminary analyses by NCES indicate that the files contain approximately 76,000 teacher observations of sophomores and about 67,000 teacher observations of seniors.

The Friends File contains identification numbers of students in the HS\&B sample who were named as friends of other HS\&B-sampled students. Each record contains the IDs of sampled students and IDs of up to three friends. Linkages among friends can be used to investigate the sociometry of friendship structures, including reciprocity of choices among students in the sample, and to trace friendship networks.

## Merged HS\&B Base Year, First, Second, Third, and Fourth Follow-Up Files

The First Follow-Up Sophomore File contains responses from 29,737 students and incuudes both base year and first follow-up data. This file includes information on school, family, work experiences, educational and occupational aspirations, personal values, and test scores of sample participants. Students are also classified in terms of high school status as of 1982 (that is, dropout, same school, transfer, or early graduate).

The First Follow-Up Senior File contains responses from 11,995 individuals and includes both base year and first follow-up data. This file includes information from respondents concerning their high school and postsecondary experiences and their work experiences.

The Second Follow-Up Sophomore File has all base year, first follow-up, and second follow-up data for 14,825 members of the sophomore cohort. Data cover work experience, postsecondary
schooling, earnings, periods of unemployment, and so forth, for the sophomore cohort, who by this time had been out of high school for two years.

The Second Follow-Up Senior File encompasses all base year, first follow-up, and second follow-up data for the 11,995 individuals who constitute this follow-up sample. Data cover work experience, postsecondary schooling, earnings, periods of unemployment, and so forth, for the senior cohort, who by this time had been out of high school for four years.

The Third Follow-Up Sophomore File includes all base year, first follow-up, second follow-up, and third follow-up data for the 14,825 members of the sophomore cohort. Data cover marriage and family formation, work experience, postsecondary schooling and interest in graduate degree programs, earnings, periods of unemployment, and alcohol consumption for this cohort, who by 1986 had been out of high school for four years.

The Third Follow-Up Senior File includes all base year, first follow-up, second follow-up, and third follow-up data for the 11,995 individuals who constitute this follow-up sample. Data cover marriage and family formation, work experience, postsecondary schooling and interest in graduate degree programs, earnings, periods of unemployment, and alcohol consumption for the senior cohort, who by 1986 had been out of high school for six years.

The Fourth Follow-Up Sophomare File includes all base year, first, second, third, and fourth follow-up data for the 14,825 members of the sophomore cohort. Data cover marriage and family formation, work experience, postsecondary schooling, earnings, and periods of unemployment for this cohort, who by 1992 had been out of high school for ten years. HS\&B fourth follow-up data are scheduled to be released in 1994.

## Other HS\&B Files

The High School Transcript File describes the coursetaking behavior of 15,941 sophomores of 1980 throughout their four years of high school. Data include a six-digit course number for each course taken, along with course credit, course grade, and year taken. Other items of information, sucn as grade point average, days absent, and standardized test scores, are also contained on the file.

The Offerings File contains school information, course offerings, data for 957 schools. Each course offered by a school is identified by a six-digit course number. Other information, such as credit offered by the school, is also contained on each record.

The Updated School File contains base year data ( 966 completed questionnaires) and first follow-up data ( 956 completed questionnaires) from the 1,015 participating schools in the HS\&B sample. First follow-up data were requested only from those schools that were still in existence in the spring of 1982 and had members of the 1980 sophomore cohort currently enrolled. Each high school is represented by a single record that includes 230 data elements from the base year school questionnaire, if available, along with other information from the sampling files (e.g., stratum codes, case weights).

The Postsecondary Education Transcript File for the HS\&B seniors contains transcript data on dates of attendance, fields of study, degrees earned, and the titles, grades, and credits of every course attempted at each school attended, coded into hierarchical files with the student as the highest level of aggregation. Although no survey forms were used, detailed procedures were developed for extracting and processing information from the postsecondary school transcripts that were collected for all members
of the 1980 senior cohort who reported attending any form of postsecondary schooling in the first or second follow-up surveys. (Over 7,000 individuals reported over 11,000 instances of school attendance.)

The Postsecondary Education Transcript File for the HS\&B sophomores includes transcript data for over 6,000 members of the 1980 sophomore cohort who reported in the follow-up survey that they had attended a postsecondary institution. The data file created for this study includes detailed information about program enrollments, periods of study, fields of study pursued, specific courses taken, and credits earned. An updated transcript file is being prepared as part of the 1992 HS\&B fourth follow-up.

The Senior Financial Aid File contains financial aid records from postsecondary institutions respondents reported attending and federal racords of the Guaranteed Student Loan Program and of the Pell Grant program.

The Sophomore Financial Aid File includes data on postsecondary financial aid experiences for 1980 sophomores who attended a postsecondary institution. Financial aid data were collected from federal records of the Guaranteed Student Loan and Pell Grant programs, and GSL disbursement data from guarantee agencies participating in the Guaranteed Student Loan program.

The HS\&B HEGIS and PSVD File contains the postsecondary school codes for schools HS\&B respondents reported attending in the first and second follow-ups. In addition, the file provides data on institutional characteristics, such as type of institution, highest degree offered, enrollment, admissions requirements, tuition, and so forth. This file pennits analysts to link HS\&B questionnaire data with institutional data for postsecondary schools attended by respondents.

## NLS-72 Files

The NLS-72 Base Year Through Fourth Follow-Up (1979) File contains data from the base year through fourth follow-up for over 23,000 respondents. Data include school experiences and test results during the base year and subsequent activities related to work, postsecondary schooling, milicary service, family formation, and goals and aspirations.

The NLS-72 Fifth Follow-Up File consists of the results of the fifh follow-up survey, carried out in 1986, when sample members were about thitiy-two years old. Data include work experience going back to 1979, postsecondary schooling, extensive family formation history, periods of unemployment, goals and aspirations, and selecte ' attitudes. Records in this file can be linked through student ID to those in the NLS-72 Base Year Thsough Fourth Follow-Up (1979).

The NLS-72 Teacher Supplement File contains the responses of the portion of the fifth follow-up NLS-72 sample who had obtained teacher certification and/or had teaching experience. Data include certification history, subjects taught, years of experience, attitudes toward teaching as a career, and subsequent work experiences of those who had left teaching. These data can be linked through the respondent ID to the NLS-72 Fifth Follow-Up File and to the NLS-72 Base Year Through Fourth Follow-Up File.

## The Posisecondary Education Transcript Study of the NLS-72 Sample contains transcript data

 on dates of attendance, fields of study, degrees earned, and the titles, grades, and credits of every course attempted at each school attended, coded into hierarchical files with the student as the highest level of aggregation. Although no survey forms were used, detailed procedures were developed for extracting and pri essing information from the postsecondary school transcripts that were collected in 1984 for allmembers of the NLS-72 cohort who reported attending any form of postsecondary schooling in any of the firsi through fourth follow-up surveys. (Over 14,000 individuals reported over 24,000 instances of school attendance.)

## Appendix B

National Center for Education Statistics, Longitudinal and Household Studies Branch, NELS:88 Publisations

## NCES NELS:88 Publications

## ANALYSIS REPORTS.

Hafner, A., Ingels, S.J., Schneider, B., and Stevenson, D.L. A Profile of the American Eighth Grader, June 1990; NCES 90-458.

Hoachlander, E.G. A Profile of Schools Attended by Eighth Graders in 1988, September 1991; NCES 91-129.

Bradby, D. Language Characteristics and Academic Achievement: A Look at Asian and Hispanic Eighth Graders in NELLS:88, February 1992; NCES 92-479.

Horn, L., and Hafner, A. A Profile of American Eighth-Grade Mathematics and Science Instruction, June 1992; NCES 92-486.

Horn, L., and West, J. A Profile of Parents of Eighth Graders, July 1992; NCES 92-488.
Kaufman, P., and Bradby, D. Characteristics of At-Risk Students in NELS:88, August 1992; NCES 92-042.

McMillen, M. Eighth to Tenih Grade Dropouts, 1992; NCES 92-006.
Owings, J., and Peng, S. Transitions Experienced by 1988 Eighth Graders, 1992. NCES 92-023.
Green, P.J. High School Senions Look to the Future, 1972 and 1992, 1993; NCES 93-473.
McMillen, M., Hausken, E., Kaufman, P., Ingels, S., Dowd, K., Frankel, M. and Qian, J. Dropping Out of School: 1982 and 1992, Issue Brief Series, 1993; NCES 93-901.

Rasinski, K.A., Ingels, S.J., Rock, D.A., Pollack, J. America's High School Sophomores: A Ten Year Comparison, 1980-1990, 1993; NCES 93-087.

Green, P.J., Dugoni, B.L., Ingels, S.J., and Camburn, E. A Profile of the American High School Senior in 1992, NCES, forthcoming, 1994; NCES 94-384.

Ingels, S.J., Plank, S.B., Schneider, B., and Scott, L.A. A Profile of the Americari High School Sophomore in 1990, NCES, forthcoming, 1994.

Myers, D., and Heiser, N. Students' School Transition Paiterns between Eighth and Tenth Grades Based on NELS:88, forthcoming 1994; NCES 94-137.

Rasinski, K.A. The Effect of High School Vocational Education on Academic Achievement Gain aud High School Persistence: Evidence from NELS:88, 1994; Report to the Office of Research, U.S. Department of Education.

Rock, D.A., Owings, J.A., and Lee, R. Changes in Math Proficiency Between 8th and 10th Grades. Statistics in Brief series, 1994, NCES 93-455.

Scott, L.A., Rock, D.A., Pollack, J.M., and Ingels, S.J. Two Years Later: Cognitive Gains and School Transitions of NELS: 88 Eighth Graders, NCES, forthcoming, 1994.

## RELEASED E.D. TABULATIONS.

Rasinski, K.A., and West, J. NELS:88: Eighth Graders' Reports of Courses Taken During the 1988 Acadernic Year by Selected Student Characteristics, July 1990; NCES 90-459.

Rock, D.A., Pollack, J.M., and Hafner, A. The Tested Achievement of the National Education Longitudinal Study of 1988 Eighth-Grade Class, April 1991; NCES 91-460.

## USER'S MANUALS/TECHNICAL REPORTS/METHODOLOGY MONOGRAPHS.

Ingels, S.J., et al. NELS:88 Base Year Field Test Report. 1987. Chicago: NORC. ERIC ED 289897.

Ingels, S.J., Abraham, S., Rasinski, K.A., Karr, R., Spencer, B.D., and Frankel, M.R. NELS:88 Base Year Data File User's Manuals:

STUDENT COMPONENT: March 1990; NCES 90-464
PARENT COMPONENT: March 1990; NCES 90-466
SCHOOL COMPONENT: March 1990; NCES 90-482
TEACHER COMPONENT: March 1990; NCES 90-484
Ingels, S.J., Rasinski, K.A. Frankel, M.R., Spencer, B.D., and Buckley, P. NELS: 88 Base Year Final Technical Report, 1990; Chicago: NORC.

Spencer, B.D., Frankel, M.R., Ingels, S.J., Rasinski, K.A., and Tourangeau, R. NELS: 88 Base Year Sample Design Report, August 1990; NCES 90-463.

Dowd, K.L., et al. NELS: 88 Second Follow-Up Field Test Report. 1991. Chicago: NORC. ERIC ED 335-418.

Rock, D.A., and Pollack, J.M. Psychomeiric Report for the NELS: 88 Base Year Test Battery, April 1991; NCES 91-468.

Kaufman, P., Rasinski, K.A., Lee, R., and West, J. Quality of Responses of Eighth-Grade Students to the NELS:88 Base Year Questionnaire, September 1991; NCES 91-487.

Ingels, S.J., Scott, L.A., Lindmark, J.T., Frankel, M.R., and Myers, S.L. NeLS: 88 First Follow-Up Data File User's Manuals:

STUDENT COMPONENT: SCHOOL COMPONENT: DROPOUT COMPONENT: TEACHER COMPONENT:

April 1992; NCES 92-030
May 1992; NCES 92-084.
November 1992; NCES 92-083
November 1992; NCES 92-085

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## UPCOMING NEIS:88 REPORTS AND TECHNICAL DOCUMENTATION.

> Technical Report: NELS:88 Second Follow-Up Psychometric Report Technical Report: NELS:88 Second Follow-Up Final Technical Report
> Technical Report: NELS:88 Second Follow-Up Sample Design Report
> Selected Methodological Monographs
> Statistical Analysis Report: America's High School Seniors: A Twenty Year Comparison, 1972-1992
> Technical Report: NELS:88 Second Follow-Up School Effectiveness Study Data File User's Manual
> Statistical Analysis Report: Science and Mathematics Teaching and Learning

## Appendix C

## NELS:88 Content Areas and Research Issues

## Content areas and corresponding questions in NEL.S:88 second follow-up

CONTENT CATEGORY: 1. EQUITY/ACCESS/CHOICE

|  | Student | Tencher |
| :---: | :---: | :---: |
| School programs | 12B Accoss into current high school program <br> 13-14 Special programs, Talent <br> Search and Upward Bound <br> 23B Vocational teacher practice | 1-17 Has spoken to guidance counselor or another teacher about student's academic performance, behavior <br> ll-6 How many students in ciass are from minority racial/othnic groups il-12 What percent of ciass time is spent on various types of instruction, discipline, administration, tests |
| Mathomatics class | 19-22 Mathematics teacher/class | I-17 Feellings about explaining "whys" of mathematics |
| Sclences class | 15-18 Sclence teacher/class | \|1-23-26 Description of sclence class facllities, oquipment and its condition, availability of consumabie supplies |
| Transition from school to collogo/ work | 50 Why not continue oducation right away <br> 53-54 Who/what services at school helped in job search <br> 64-65 Career expectations <br> 91 Hourly pay rate | -18 Written job recommendation for studient <br> -19 Discussed college programs and college and career choices with student |
| Applying for colleges | 44 Plans for taking college admissions, placement tests <br> 45 Preparations for ACT/SAT <br> 57 Help from school in applying for colleges <br> 58 Steps taken to learn about applying for financial ald 59-61 Choosing a school 62-63 Study fieids desired/most likely to pursue | 1-18 Written rocommendation for student for postsecondary institution |
| Teaching staff characteristics | 7 School climats and teacher interaction | N-2 Race/othnlcity of teacher N-3 Sex of teacher iV-4-15 Teacher's years teaching, certification, educational background, and subject areas of instruction |
| Family, homo, friends, community | 67 Thoughts on own future <br> 72 Agos will assume roles and activitios <br> 78 Who helps to take care of child 106 Attends rellgious servicas | 1-6 Has spoken to student's parents about academic performance, behavior |
| Language use | 109 How well student understands, sper':s, reads, and writes English 110 Since fall 1989, has student recelved help in reading, writing, or speaking English; what type of help 111-113 Have English skills macio it difficult to engage in school work/activitios, jobs, applying for college, college work | I-9 is student's native language English <br> I-10 is student limited English proficiont |


|  | Student | Teacher |
| :---: | :---: | :---: |
| School climate | 6A Grade currently in <br> 7 School climate and teacher interaction <br> 8 Safety in school <br> 24 How often comes to class unprepared <br> 25 How much time spent on homework in various subjects each week, in and out of school <br> 26 Whe tutored student (besides parents) <br> 29 Have been recognized by school or community <br> 31 Time spent on school sponsored extracurricular activities per week <br> 32 time spent on non school related reading per week <br> 33 Frequericy of participation in non school related activities | i-2-5 Student's motivation, behavlor 1-6-7 Has spoken to student's parents about academic performance, behavior, parental involvement 1-8 Difficulty of class related to student <br> 1-11 Does student perform below ability <br> I-12 Does student always finioh homework <br> 1-13-16 Student's attention, behavior in class <br> 1-17 Has spoken to guidance counselor or another teacher about student's academic performance, behavior <br> ill-1 Percelved control over planning and teaching <br> III-2 Feellngs about teacher efficacy and studerit achiovement III-3 Importance of factors in setting grades for students Ill-4 Frequency of departmental mestings <br> 111-5-6 Characteristics, enforced policies of department and department chair <br> III-7 Characteristics, enforced pollcles of school or school administrator III-8 Facllities like offices and lunch rooms that are available to teachers III-3 Amount of out-of-class time during school day spent with whom ai school <br> III-10-13 Which whom does teacher discuss various issues III-14 Changes that occurred in school <br> III-15-16 Comments on student behavior and policies at school |
| Attendance and absences | 9 Frequency of cutting ciass and other disciplinary problems 10 Reasons for absences 11 When/duration of last unexcused absence | 1-2 Is student motivated to get good grades <br> 1-6 Dlscussed student's absenteelsm with parents |
| School program | 12 Description of current high school program <br> 23B Vocational teacher practice 27-28 Have taken a minimum competency or proficlency test, results | \|l3-4 Which "track" is class, achievement levels <br> Il-5 Number of students in class $11-7$ Why teaching this class $11-8-9$ Amount of homework given daily, recording of who has completed it <br> If-10-11 Amount of class/lab time weokly <br> II-12 What percent of class time is spent on various types of Instruction, disclplline, administration, tests <br> II-13 Media used in teaching |

Student
Teacher


|  | Student | Teacher |
| :---: | :---: | :---: |
| Family, home | 93-95 Caring for younger children <br> 96 Famlly rolated events <br> 97 Do parents know student's friends' parents <br> 98 Who makes decislons in family 99 How often discusses school, colloge, jobs, problems with parents 101 Run away from home 102-103 How many times moved, changed schools 105-106 Attends/practices relligion | 1-7 Has teacher discussed student's behavior or performance with parents |
| Language use | 107-108 is Engilsh native language, usage of native language 109 How woll student understands, speaks, reads, and writes English 110 Received holp In English, what type, percelved value of holp 111-113 Have English skills made it difficult to engage in school work/activitios, jobs, applying for college, college work | I-9 is English student's native language <br> l-10 ls student's ablity limited by English proficiency |

CONTENT CATEGORY: 3. TRACKING DYNAMICS

| Sturdent |  | Teacher |
| :---: | :---: | :---: |
| School climato | 24 How often comes to class unpiepared 25 How much time spent on homework in various subjects each week, in and out of school 66 Self-estoem | 1-8 Difficulty of class related to student 1-17 Has spoken to guidance counselor or another teacher about student's academic performance, behavior |
| Mathematics class |  | II-14 Emphasis on different mathematical objectlves II-15 Toples taught or reviowed thls yoar Il-16 Understanding student performance in mathematics |
| Sclence class |  | II-18 Emphasis on different sclence objectives <br> II-19-21 Topics taught or reviewed this year in scionce, Blology and Chemistry class |
| School programs | 12 Description of current school program, access into program | II-3-4 Which "track" is class, achiovement lovals II-5 Number of students enrolled in class |
| Teaching staff characteristics |  | N-4-5 Years taught, years taught in thls school N-11-12 Teacher's subject areas of instruction |
| Transition from school to coliage/ work | 41 What do people think is most important for student to do right after high achool | 1-4 Student motivated to pursue postsecondary education |
| Applying for colleges | 44 Pians for taking coliege admissions and placement tests 58 Steps taken to learn about applying for financial ald for colloge 61 What type of school will most likely go on to | IH-3 Which "track" Is class II-4 Achievement levela of students in class |


|  | Studont | Teecher |
| :---: | :---: | :---: |
| Languago use | 107-108 is English native language, usage of native language 110 Received help in English, porcelved value of help | 1-9 is student's native language English F10 is student limited English proflicient |

## CONTENT CATEGORY: 4. DROPPING OUT

| Studont |  | Teacher |
| :---: | :---: | :---: |
| School climate | 7 School cllmate <br> 0 Saioty in school <br> 17 Student engagement in science class <br> 21 Student angagement in mathematics class 24-25 Prepsration for class, completion of nomowork 29 Have boon recognized by school or community for activitios 30 Partizipation in school sponsorad extracurricular activittes | 1-5 Does student talk to teacher outside of class about echool work Il-6 How many students are from minority racial/ethnic groups It-9 How homowork is recorded III-13 Who at school has holpad teacher improve teaching or solve a classroom problem |
| Time in and out of school | 9 Frequency of cutting class and other disciplinary problems 10 Reasons for absences 11 When/duration of last unexcused absence | 1-13-16 Student's absenteoism, tardiness, attention, behavior in class |
| School program | 13 Participation in special programs 27-28 Have taken a minimum competency or proficiency test, results | 1-6 Teacher has discussed student's behavior and performance with parents |
| Applying for colloges/ work | 41 What do people think is most important for student to do right after high school <br> 42 Parental, friend, teacher aspirations for student's education 43 Student's educational expectations <br> E6-91 Jobs held during school year 92 Spending of oarnings | 1-4 Does student seem motivated to pursue postsecondary education |
| Teaching staff characteristics | 7 School climate, teacher interaction | Ill-2 Perceptions of the teacher's efficacy <br> N-14 Teacher Satisfaction <br> N - 22 Days texcher missed school <br> N- 23 Formal observations of <br> teacher's class |


|  | Student | Teecher |
| :---: | :---: | :---: |
| Family/ home lifo/ friends | 34,35 Time spent playing computer vidoo games and watching tolevision 40 Importance of several life goals/ideals <br> 66 Self-steem <br> 68 importance of peer group activitios <br> 70.71 Student, friends celong to a gang <br> 72 Ages will assume roles and activitios <br> 73 Marital status <br> 74 importance of y edlock for sexual relationships <br> 80-85 Substance abuse <br> 78 Who helps to take care of child <br> 93-95 Caring for youngor children <br> 96 Family rolated events <br> 97 Do parents know student's <br> friends' parents <br> 98 Who makes docisions in family <br> 99 How often discusses school, college, jobs, problems with parents <br> 101 Run away from home <br> 102-103 How many times moved, changed schools <br> 105-106 Attends/practices reiligion | t-6 Teacher has discussod student's behavior and performance with parentz <br> III-1 Amount of teacher control in classroom <br> II-15 Teacher's perception of school rules for student behavior <br> III-16 Teacher's perceptions of problems with etudents at school |
| Language use | 110A Recolved help in English, what type, percelved vaiue of help 111-113 Have English skills mado it difficult to engage in school work/activitios, Jobs, applying for college, coliege work | t-9 ls student's native language English <br> +10 is student IImited English proficient |

CONTENT CATEGORY: 5. TRANSITION PATTERNS

| Student |  | Teacher |
| :---: | :---: | :---: |
| Schooi programs | 14 Participation in Upward Bound program | lil-1,2,5 Percentions of teacher officacy <br> IIt-6 Departmental support of teaching <br> III-7 Porceptions of school pollicies |
| Transition from school to college/ work | 50 Why not continue with school right away <br> 51-52 Have a job lined up for fulltime work after leaving hiyh school 53-54 Whu,'what services at school helped in job search 55 Expecied hourly wage in first job after high echool | III-1,2,5 Perceptions of teacher officacy |
| Applying for college | 58 Stops taken to learn about applying for financial aid <br> 45 Preparations for the SAT/ACT <br> 49, 61 Plans to go straight on to school, type of school <br> 57 Help from school in applying for colloges <br> 59 importance of different factors in choosing a school <br> 46 Work/study plans ror this surnmer 62-63 Study fields desired/most llikely to pursue | F-18 Wrote recommendations for student for postsecondary oducation or jobs <br> t19 Has student discussed college or career choleses with teachor |


|  | Stude: t | Teacher |
| :---: | :---: | :---: |
| School climate | 7 School climate, teacher Interaction <br> 8 Safoty in school | Il-6 How many students are from minorlty racial/othnic groups <br> lil-1 Perceived control over planning and teaching <br> III-2 Feolings about teacher efficacy and student achiovement <br> III-3 importance of factors in setting grades for students. <br> III-4 Frequency of departmental meetings <br> III-5-6 Characteristics, enforced policies of department and department chair <br> Ill-7 Characteristlcs, enforced policies of school or school administrator IIl-8 Facllitios like offices and lunch rooms that are avallable to teachers III-9 Amount of out-of-class time during school day spent with whom at school <br> III-10-13 Which whom does teacher discuss various issues <br> III-14 Changes that occurred in school <br> III-15-16 Comments on student behavior and policies at school |
| Mathematics class | 19-22 Mathematics teacher/class | II-7 Why teacher assigned to class II-14 Emphasis on different mathematical objectives <br> II-15 Topics covered in mathematios class <br> \||-16 Understanding student <br> performance in mathematics <br> II-17 Approach to explaining "whys" of mathematics <br> N-1-3 Teacher's sex, race, and year of birth <br> N-4-15 Teacher's background and education <br> N-14,22 Teacher satisfaction and number of days missed |
| Science class | 15-18 Science teacher/class | II-18 Emphasis on different scienco objectives <br> \|l-19-21 Topics taught or reviewed this year in science, Biology, Chemistry, and Physics class 11-23-26 Description of science class facilities, equipment and its condition, availability of consumable supplies <br> N.1-3 Teacher's sax, race, and year of bith <br> N-4-15 Teacher's background and oducation <br> N-14,22 Toacher satisfaction and numher of days missed |


|  | ent | Teacher |
| :---: | :---: | :---: |
| School programs | 14 Upward Bound <br> 238 Vocational teacher practice 26 Who tutored student (besides paronts) <br> 27-28 Have taken a minimum competency or proficiency test, rosults | 11-7 Why teachir. 7 this class <br> II-8 Amount of homework given dally <br> II-10-11 Amount of clazs/lab time wookly <br> IT-12 What percent of class time is spent on varlous types of instruction, disciplino, administration, tests <br> If-13 Media used in teaching <br> IV-16-21 Tuacher in-service and <br> onsichment programs <br> [ V -23 Formal observation of teacher's class |
| Transition from school to college / work | 41 What do people think is most important for student to do right after high school <br> 43 Student's educational expectations <br> 47 Have enough skills now for career in five yoars <br> $53-54$ Who/what services at school helped in job search | 1-18 Teacher has writton rocommendations for college and work for student -19 Teacher has discussed colloge and career choices with student |
| Applying for colleges | 57 Help from school in applying for colleges | -18 Teacher has written recommendations for colioge and work for student |
| Teact 'ng staff charecteristics | 7 School climate/teacher interaction | IV-4-6 Years taught, years taught in this school, full-time/part-ime status V-7-10 Teaching cortificates heid, academlc degrees and subject areas V-11-12 Which subjocts taught this your <br> V-13 Number of college coursos taken in most taught subject IV-14 Satisfaction with teaching job V -15 Started teaching a now subject or level this year <br> V-16 Received in-service oducation <br> IV-17 Participated in activities for toachers this school year <br> N-18-21 Toacher enrichment programs <br> IV-22 Missed days <br> V-23 How often did supervisor observe teaching |
| Family, home, frionds | 68 importance of peer group activitios | L-3 Student relates woll to others |

CONTENT CATEGORY: 7. PARENTAL INVOLVEMENT

Student

|  | do | Teacher |
| :---: | :---: | :---: |
| School, education | 12B Accass into current high achool program <br> 42 Parental, friend, teachor aspirations for student's education | 1-6 Spoken to student's parents ubout academio performance, behavior <br> b7 Parental involvement in atudent's performancs <br> 1-14 How often's atudent tardy III-: 1 Teacher discueses curriculum lssues with parents at school |
| Family, nome | 96 Famlly related ovents <br> 97 Do parents know student's friends' parents <br> 98 Who makes decisions in family <br> 99 How often discusses school, college, jobs, problems with paients 100 Student's perception of relationship with parents <br> 104 How old when left alone | 1-7 Parental involvement in student's performance |

Appendix D

## Guidelines for Using SAS with

NELS:88 Second Foilow-Up Teacher Data

## Guidelines for Using SAS with NELS:88 Second Follow-Up Teacher Data

The files provided on the public release tape include SAS cards and SAS system files for the NELS:88 second follow-up teacher data file. The SAS system file for the teacher survey includes:

1) Questionnaire data
2) Composites

Users who plan to analyze NELS:88 data on personal computers can seek counsel in the Guide to the NELS: 88 ECB/CD-ROM. The sections that follow pertain primarily to mainframe applications.

The following are situations which may be encountered when using large data files with SAS and suggestions for handling them.

1. Use the ' $(\operatorname{KEEP}=\ldots)^{\prime}$ and '(DROP = ...)' options in the 'SET' statement and/or in the 'DATA' statement when creating working data files so that unwanted variables are not included in the files. The ' $(\operatorname{KEEP}=\ldots)$ ' option does not reorder the variables in the new data set.

The files are large and ne SAS cards associated with all of the variables within a file require a great deal of memory. Eliminating unwanted variables and the cards associated with them will reduce the amount of memory necessary to run jobs.
2. Some of the label statements given in the SAS card files may need to be eliminated because of SAS system limitations present at many computer installations.
3. The large number of VALUE statements in the PROC FORMAT section requires that a special DD statement be placed just after the // EXEC SAS statement to increase the capacity of the format library during a SAS run:

$$
\text { //LIBRARY DD SPACE =(TRK, }(25,25,60) \text { ) }
$$

Since this may not be possible at some computer installations, it may be necessary to delete some VALUE statements.
4. When working with large files, it may be necessary to override the default work space with the following DD satement:

$$
\text { //WORK DD UNIT = SYSCR,SPACE=(CYL, }(40,40))
$$

Place the //WORK DD statement just after the // EXEC SAS statement (or after the //LIBRARY DD statement, if that is included as well).
5. The formats given in the PROC FORMAT step here are not permanently associated with each variable. Whenever they are needed for a procedure, it is necessary to include them in this PROC FORMAT step before the procedure(s) that will use them.

In the following example PROC FORMAT is used first to make a temporary library of formats (sets of value labels). Then PROC FREQ is used to access the First Follow-Up teacher SAS
system file and to create a frequency table. The FORMAT statement in PROC FREQ links the variable in the frequency to the appropriate value label stored in the temporary format library.

```
// EXEC SAS
//LIBRARY DD SPACE=(TRK,(25,25,60))
//WORK DD UNIT = SYSCR,SPACE=(TRK,(1000,1000))
//IN1 DD DSN = ACT.PUBL.F2TE.SASLIB,DISP=SHR
//SYSIN DD *
OPTIONS DQUOTE;
PROC FORMAT;
VALUE TC25V
    1 = "APPLIES"
    2 = "DOES NOT APPLY"
    6 = "MULTIPLE RESPNSE"
    7 = "REFUSED"
    8 = "MISSING"
    9 = "LEGITIMATE SKIP"
;
```

PROC FREQ DATA = IN1. F2TEACHR;
FORMAT
F2T4_9B1 TC25V.

TABLES F2T4_9B1;
TITLE "BACHELOR'S DEGREE MAJOR IN MATHEMATICS";

At the and of each SAS card file, there is a frequency procedure which contains FORMAT statements for every variable for which there is a format. These FORMAT statements can be used in any SAS procedure. However, if there are a large number of format links, they must be divided into several format statements to work. (Using about 90 format links in the format statement proved successful on the University of Chicago mainframe).
6. Whenever variables are needed from several files (i.e., second follow-up teacher and student), the files may be merged by STU_ID using SAS MERGE statements. A simple one line MERGE statement will put variables from separate files together in a single record for analysis. Users are reminded to first sort the files by the variables selected for merging; that is, sort both files by STU_ID.
7. For very large files, the user may encounter problems when sorting. Various options may be added to the //EXEC SAS card to circumvent these problems. A suggested example is given below (consult the SAS manual for descriptions of these options):
// EXEC SAS,OPTIONS = 'NODYNALLOC',REGION = 1280K,SORT=30
8. It is suggested that the user include the LENGTH statement when creating new variables, in order to save space and computer memory.
9. For many tabulations, PROC TABULATE produces the most readable output. The SAS user may use the format statements (provided) for classification variables to produce the row values of tabulate tables.
10. Output from SAS can be downloaded to personal computers for production of final reports. NCES has available a program for taking into account the sample design when computing standard errors. The program, known as CTAB, is a Taylor series based routine that uses an ASCII file to compute standard errors for crossclassifications. The program also produces labeled tabular output suitable for use in publications. CTAB is available for use on microcomputers, and can be obtained through NCES.
11. Use the NCES- and NORC-defined composite and classification variables whenever possible to simplify programming. These classification variables were carefully constructed and, for some of them, sources of data from outside the teacher questionnaire were merged into the teacher data to construct the variables.
12. SAS and SPSS-X system files can now be converted at many computer installations. Contact your own facility to obtain the information necessary to create an SPSS-X file from SAS and vice versa.
13. There is a peculiarity with version 6.06 of SAS. The symbol " $\%$ " will not be rinced if it appears as the first character in the first variable label on a printed page.

## Appendix E

## NELS:88 Second Follow-Up

## Teacher Questionnaire

Note: For the user's convenience, some second follow-up questionnaire variables were recoded to facilitate using NELS:88 second follow-up student-level teacher data in cross-wave and crosscohort analyses. These recodes generally involved the reordering of item values. Questionnaire item values appearing in this appendix reflect these recodes, as does the Teacher Questionnaire Codebook that appears in Appendix I.

NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988

## SECOND FOLLOW-UP

## TEACHER QUESTIONNAIRE

Prepared for: U.S. Department of Education<br>National Center for Education Statistics<br>By: National Opinion Research Center (NORC)<br>A Social Science Research Center at the<br>University of Chicago

## USES OF THE DATA

The data from this survey will be used by educators and by federal and state policymakers to address important issues facing the nation's schools: educational standards, curriculum tracking, dropping out of school, the education of the disadvantaged, the needs of language minority students, incentives for attracting students to the study of science and mathematics, and the features of effective schools.

## CONFIDENTIALITY

As a matter of policy, the National Center for Education Statistics is required to protect the privacy of individuals who participate in voluntary surveys. We want to let yoü know that:

1. Section 406 of the General Education Provisions Act (20-USC 1221e-1) and Public Law 100-297 allow us to ask you the questions in this questionnaire.
2. You may skip any questions you do not wish to answer.
3. Your responses will be merged with those of others, and the answers you give will never be identified as yours.


The public reporting burden for collection of this information is estimated to average one half-hour ( 30 minutes) for completion of the entire bookiet. Completion of Parts Three and Four only is estimated to average 15 minutes. Send comments regarding this collection of information to: U.S. Department of Education, Information Management and Compliance Division, Washington, D.C., 20202-4561 and to the Office of Management and Budget, Paperwork Reduction Project, Washington, D.C., 20503.

## MARKING DIRECTIONS

- Use only a soft lead pencil (No. 2 is best).
- Make dark marks that fill the oval.
- Erase cleanly any answer you wish to change.
- Make no stray markings of any kind.

CORRECT MARKS


INCORRECT MARKS © 8 O

Example: 1. Will marks made with ballpoint or felt-tip pen be properly read?
OYes

- No

USE NO. 2 PENCIL ONLY

TEACHER QUESTIONNAIRE

## INTRODUCTION

This questionnaire is part of a major longitudinal study designed to provide trend data about critical transitions experienced by young people as they develop, attend school, and embark on their careers. Some of the students who were selected as part of a nationwide random sample when they were in eighth grade are now attending your school. Your school has agreed to participate in this study. Mathematics and science teachers of these students are being asked to complete this questionnaire. Other teachers in these departments may be asked to complete only Parts Three and Four about their departments or subject areas and themselves. You should have one of two forms attached to the front cover or inside of this questionnaire -- either a list of students from your classes or an instruction to complete only Parts Three and Four. If neither form is attached or if you have a special teaching situation about which you are not sure how to answer (for example, you teach one student in more than one class), please call Terry Burke toll-free at NORC at 1-800-788-7203. We are seeking information from you to supplement other study data about students and their schools.

This questionnaire has four very different sections:
Part lasks you questions about the characteristics and behaviors of the sampled student(s) whom you have in one of your classes. Individual students are referred to by "Student Number," as shown in the List of Students attached to the inside of this questionnaire. Part I asks you to write the student's initials below the student's number.

Part II asks a series of questions about the classes which you taught to the students about whom you answered questions in Part I. As you will see, Part II contains room for responses on a maximum of five classes.

Part III asks a series of questions about the climate and practices of your school and your subject area or department.

If you teach classes in more than one subject area, answer questions in Part Ill about the subject area in which you teach the greatest number of students listed on the Student List.

If you teach the same number of students on the Student List in math and science classes, answer Part III about the subject area in which you spend more time teaching.

If the letter attached to the questionnaire asks you to complete only Part III and Part IV of the questionnaire, please answer Part III about the subject area indicated in the letter.

Part IV requests some general information about you.
Please answer directly on the questionnaire by darkening the oval or by writing your response in the space provided.

We realize that you are very busy; however, we would appreciate it if you would complete the questionnaire and return it to NORC in the enclosed prepaid envelope within the next two weeks.

## THANK YOU VERY MUCH FOR YOUR HELP WITH THIS IMPORTANT STUDY.

Attach Student List NOTE: OK - Dont K Know

| STUDENT NUMBER (from atlached ist) Please write the student's initials below the number | Student 01 | ${ }_{\text {ant }}^{\substack{\text { atudent } \\ 0}}$ | $4 \text { Sludent }$ | nt Student | Student | ${ }_{\text {a }}^{\text {at }}$ Student | Student | nt Student | ${ }_{\substack{\text { Student } \\ \text { O9 }}}$ | ${ }_{\text {nt }}$ Student | ${ }_{\text {Student }}^{11}$ | ${ }_{\text {Student }} 12$ | ${ }_{\text {Student }}^{13}$ | ${ }_{14}^{\text {Student }}$ | ${ }_{\text {Student }}^{15}$ | ${ }_{\text {Student }}^{\substack{\text { St }}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Betore answering the questions about tins student, write the studenl's "Code Number" (second column on the Student List atlached to the previous page) that corresporids to that number. |  |  |  | 0 0 0 0 0 0 0 0 0 0 0 |  |  |  |  |  |  |  |  | $\square$ 1 <br> 0 0 <br> 0 0 <br> 0 0 <br> 0 0 <br> 0 0 <br> 0 0 <br> 0 0 <br> 0 0 <br> 0 0 <br> 0 0 <br> 0 0 |  |  |  |
| 1A. Did you teach this student during the fall of 1991? | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{array}{ll} 0 & \text { Yes } \\ 0 & N_{2} \end{array}$ | $\left\lvert\, \begin{aligned} & 0 \\ & 0 \\ & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\left\lvert\, \begin{array}{l\|l\|} 0 \\ 0 \\ 0 & \text { Yes } \end{array}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & 0 \\ & 0 \\ & 0 \text { Yes } \\ & \hline \text { No } \end{aligned}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\left\lvert\, \begin{array}{l\|l\|} 0 \\ 0 & \text { Yes } \\ 0 & \text { No } \end{array}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\left\lvert\, \begin{array}{l\|l\|} \hline 0 \text { Yes } \\ 0 \text { No } \end{array}\right.$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}\right.$ |
| 18. Are you teaching this student during the spring of 1992? | $\begin{array}{ll} 0 & \text { Yes } \\ 0 \\ 0 & 0 \end{array}$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}\right.$ | $\left\lvert\, \begin{array}{l\|l} 0 & \text { Yes } \\ 0 & \text { No } \end{array}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & \text { Yo } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\left\lvert\, \begin{array}{l\|} 0 \\ 0 \\ 0 \end{array}\right. \text { ves }$ | $\left\lvert\, \begin{array}{l\|l\|} \hline 0 \text { Yes } \\ 0 \text { No } \end{array}\right.$ |
| If you did not teach a listed student in the fall of 1991 or the spring of 1992, do not answer the remaining questions in this section for that refers to a student. leave his/her column blank for questions 2-19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. is this student molivated to | $\begin{aligned} & 0 \text { Yes } \\ & 0 \\ & 0 \text { No } \\ & 0 \text { ок } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \\ & 0 \mathrm{No} \\ & 0 \\ & 0 \end{aligned}$ | $\left\lvert\, \begin{array}{ll} 0 & \text { res } \\ 0 & \mathrm{No} \\ \mathrm{O} & \mathrm{ok} \end{array}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \\ & 0 \text { No } \\ & 0 \text { ok } \end{aligned}$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \\ & 0 \\ & 0 \text { No } \\ & \text { ok } \end{aligned}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \\ & 0 \text { No } \\ & 0 \text { ok } \end{aligned}$ | $\left\lvert\, \begin{array}{ll} 0 & \text { res } \\ 0 & \mathrm{No} \\ \mathrm{No} \\ \mathrm{ok} \end{array}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \mathrm{No} \\ & 0 \mathrm{No} \end{aligned}$ | $\left\lvert\, \begin{array}{ll} O \text { Yes } \\ 0 & \mathrm{No} \\ \mathrm{NOK} \\ \text { OK } \end{array}\right.$ |  | $\left\lvert\, \begin{array}{ll} 0 & \text { Yes } \\ 0 & \mathrm{No} \\ 0 & 0 \mathrm{~K} \end{array}\right.$ | $\left\lvert\, \begin{array}{l\|l\|} 0 & \text { Yes } \\ 0 & \mathrm{No} \\ \mathrm{O} & \mathrm{ok} \end{array}\right.$ | $\left\lvert\, \begin{array}{\|l\|l} 0 & \text { Yes } \\ 0 \text { No } \\ 0 & \mathrm{No} \end{array}\right.$ | $\left\lvert\, \begin{aligned} & \mathrm{O} \text { Yes } \\ & 0 \mathrm{No} \\ & \mathrm{No} \\ & \text { OK } \end{aligned}\right.$ | O Yes O No 0 OK | O Yes O O OK |
| 3. Does this student seem to relate wall to others? | $\left\lvert\, \begin{aligned} & 0 \\ & 0 \\ & 0 \text { Yes } \\ & 0 \end{aligned}\right.$ | $\left\lvert\, \begin{array}{l\|l\|} 0 & \text { Yes } \\ 0 & \text { No } \end{array}\right.$ | $\left\lvert\, \begin{array}{l\|l\|} 0 & \text { Yes } \\ 0 & \text { No } \end{array}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\left\lvert\, \begin{array}{l\|} 0 \\ 0 \\ 0 \text { Yos } \\ 0 \text { No } \end{array}\right.$ | $\left\lvert\, \begin{array}{l\|} 0 \\ 0 \\ 0 \text { Yos } \\ 0 \end{array}\right.$ | $\left\lvert\, \begin{array}{l\|} 0 \\ 0 \\ 0 \text { Yes } \\ 0 \text { No } \end{array}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}\right.$ | $\left\lvert\, \begin{array}{l\|l\|} 0 & \text { Yes } \\ \text { O No } \end{array}\right.$ | $\left\lvert\, \begin{array}{l\|} 0 \\ 0 \\ 0 \\ 0 \end{array}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { Oo } \end{aligned}$ | $\left\lvert\, \begin{array}{l\|l\|} \hline 0 \text { Yes } \\ 0 \text { No } \end{array}\right.$ | $\begin{aligned} & \text { O Yes } \\ & \text { O } \end{aligned}$ | $\begin{aligned} & \text { O Yes } \\ & \text { YN } \end{aligned}$ |



| STUDENT NUMBER (Irom attached <br> list) Please write the student's natials below the number | $\begin{aligned} & \text { Sludent } \\ & 01 \end{aligned}$ | $\begin{aligned} & \text { Student } \\ & 02 \end{aligned}$ | $\begin{gathered} \text { Student } \\ 03 \end{gathered}$ | $\begin{aligned} & \text { Student } \\ & 04 \end{aligned}$ | $\begin{aligned} & \text { Student } \\ & 05 \end{aligned}$ | $\begin{aligned} & \text { Student } \\ & 06 \end{aligned}$ | $\begin{aligned} & \text { Student } \\ & 07 \end{aligned}$ | $\begin{aligned} & \text { Student } \\ & 08 \end{aligned}$ | $\begin{aligned} & \text { Student } \\ & 09 \end{aligned}$ | Student 10 | Student 11 | Student 12 | Student 13 | $\begin{gathered} \text { Student } \\ 14 \end{gathered}$ | $\begin{gathered} \text { Studen! } \\ 15 \end{gathered}$ | $\begin{gathered} \text { Student } \\ 16 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8. The difficulty level of this class is... | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Not challenging enough for this student |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| The appropriate level for this student $\qquad$ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Too dilficult for this student. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9. Is this student's native language* English? | O yes O No O DK | 0 Yes O No <br> O DK | 0 Yes O No <br> O DK | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \\ & 0 \text { dK } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \\ & \mathrm{O} \text { DK } \end{aligned}$ |  | $\begin{aligned} & \text { O Yes } \\ & \text { ONo } \\ & \text { O OK } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yss } \\ & \mathrm{O} \text { No } \\ & \mathrm{O} \mathrm{DK} \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \text { O No } \\ & \mathrm{O} \mathrm{DK} \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \text { O No } \\ & \mathrm{O} \mathrm{dK} \end{aligned}$ | 0 Yes O No <br> O DK | OYes ONo O DK |  | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{ONo} \\ & \mathrm{O} \mathrm{dK} \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \text { O No } \\ & \mathrm{O} \text { ok } \end{aligned}$ | $\begin{array}{\|l} \mathrm{O} \text { Yes } \\ \mathrm{ONo} \\ \mathrm{O} \mathrm{DK} \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10. Is this student's academic performance in your class limited by his or her level of English language proficiency? | $\begin{aligned} & 0 \text { yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | 0 Yes O No | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & \text { OYes } \\ & \text { O No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | 0 Yes O No | 0 Yes O No | 0 Yes Ono | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{ONo} \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11. Does this student consistently perform below ability? | $\begin{aligned} & 0 \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Ye: } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & \text { O Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { yes } \\ & \mathrm{O} \text { no } \end{aligned}$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { no } \end{aligned}\right.$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \text { No } \end{aligned}$ | $\begin{aligned} & \text { O Yes } \\ & \text { O No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & 0 \mathrm{No} \end{aligned}$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\begin{aligned} & 0 \text { Yes } \\ & \text { ONo } \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12. How often does this student complete homework assignments on time? |  | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & \text { (1) } \\ & \hline \end{aligned}$ | $\begin{aligned} & (1) \\ & (3) \\ & (3) \\ & (4) \\ & (8) \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & (4) \\ & (B) \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & (4) \\ & (3) \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & \text { (6) } \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & \text { (1) } \\ & \text { (B) } \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & \text { (4) } \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & (3) \\ & (3) \\ & (3) \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & (3) \\ & (1) \\ & (0) \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & \text { (1) } \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & \text { (1) } \\ & \text { (3) } \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & \text { (4) } \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { (2) } \\ & \text { (3) } \\ & \text { (4) } \\ & \text { (3) } \end{aligned}$ | $\begin{aligned} & \text { (1) } \\ & \text { 2 } \\ & \text { B } \\ & \text { (2) } \\ & 0 \end{aligned}$ |
| Never . . . . . . . . . . . . . . . . | (1) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rarely ........... .. ..... | (2) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Some of the time .......... | (3) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Most of the time <br> All of the time | (1) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



| STUDENT NUMBER (from attached list) Piease write the student's mitials below the number | $\begin{gathered} \text { Student } \\ 01 \end{gathered}$ | $\begin{aligned} & \text { Student } \\ & 02 \end{aligned}$ | $\begin{gathered} \text { Student } \\ 03 \end{gathered}$ | Student 04 | $\begin{aligned} & \text { Student } \\ & 05 \end{aligned}$ | Student 06 | Sludent 07 | Sludent 08 | $\begin{gathered} \text { Student } \\ 09 \end{gathered}$ | Student 10 | Student 11 | $\begin{aligned} & \text { Student } \\ & 12 \end{aligned}$ | $\begin{gathered} \text { Student } \\ 13 \end{gathered}$ | $\begin{gathered} \text { Student } \\ 14 . \end{gathered}$ | $\begin{aligned} & \text { Student } \\ & 15 \end{aligned}$ | $\begin{aligned} & \text { Sludent } \\ & 16 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17. Have you spoken to a guldance counselor or another ieacher thls school year about the following? |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| a. Student's academic performance | $\left\lvert\, \begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}\right.$ | $\begin{aligned} & \mathrm{O} \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\left\lvert\, \begin{aligned} & 0 \text { Yes } \\ & 0 \text { no } \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & \mathrm{O} \text { yes } \\ & \mathrm{O} \text { No } \end{aligned}\right.$ | O O Yes O | $\begin{cases}0 & \text { yes } \\ \mathrm{O}\end{cases}$ | 0 yes O No | O Yes | O Yes O No | $\begin{aligned} & 0 \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | O Yes O No. | O Yes | O Yes O No | O Yes O no | $\begin{aligned} & \mathrm{O} \text { yes } \\ & \mathrm{O} \text { No } \end{aligned}$ | $\left\lvert\, \begin{array}{ll} 0 & \text { Yes } \\ 0 & \end{array}\right.$ |
| b. Student's behavior in | $\bigcirc$ Yes | O Yes | O Yes | $\bigcirc \mathrm{O}$ | $\bigcirc \mathrm{O}$ Yes | O Yes | O Yes | 0 Yes | O Yes | O yes | O Yes | $\bigcirc \mathrm{O}$ ys | 0 yes | 0 Yes | O yes | 0 Yes |
| school | O No | O no | O No. | O No | O no | O no | O No | 0 No | O No | O No | O No | O no | O no | O No | O no | O no |
| c. Student's homework assignments | O Yes O No | 0 yes 0 no | O Yes O No | O Yes O No | O Yes 0 No | O Yes | O Yes | O Yes | O Yes | O Yes | O Yes | O yes | O Yes | O Yes | O Yes | $0 \text { Yes }$ |
| assignments | O No | O No | O No | O No | O No | O No | O No | O no | O No | O no | O No | O No | O no | O no | O No | $\mathrm{O} \text { No }$ |
| d. Student's absenteelsm | O ves O No | O Yes | O.Yes | O Yes | $\bigcirc \mathrm{O}$ Yes | O yes | 0 O | O Yes | $\bigcirc \mathrm{O}$ | O Yes | O Yes | $\bigcirc \mathrm{O}$ Yes | O Yes | O Yes | $\mathrm{O} \text { Yes }$ | $\mathrm{O} \text { Yes }$ |
|  | O No | O No | O No | O No | O No | O No | O No | O No | O No | O No | O No | O No | O No | O No | $\mathrm{ONo}$ | $0 \text { No }$ |
| 18. Have you... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| a. written a recommendation | $\mathrm{O} \text { yes }$ | $\mathrm{O}_{\mathrm{O}}^{\mathrm{Y}}$ | $\mathrm{O} \text { yes }$ | O Yes | O yes | O Yes | O Yes | 0 Yes | $\bigcirc \mathrm{O}$ Yes | $\bigcirc \mathrm{O}$ yes | O yes | 0 Yes | O yes | 0 Yes | O yes | $\mathrm{O} \text { yes }$ |
| for this student for a posisecondary institution? | $0 \text { No }$ | 0 No | O No | O no | O No | O No | O No | O No | 0 No | O No | O No | O No | O No | O No | O nos | $\begin{aligned} & \text { Yes } \\ & \mathrm{O} \text { No } \end{aligned}$ |
| b. writien a recommendation | O yes | O Yes | $\mathrm{O}^{\mathrm{Y}} \mathrm{Yes}$ | O yes | 0 Yes | O yes | O Yes | O yes | O Yes | O Yes | O Yes | O Yes | 0 Yes | O Yes | 0 Yes | 0 yes |
| for this aludent for a summer job or a part-time or full-time fob after high school? | O No | O No | O No | O No | 0 No | O No | O No | O No | 0 No | 0 no | $\bigcirc \mathrm{O}$ No | O No | O no | O No | O No | O Y Cos |
| 19. Has this atudent discussed with you.. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| a. college cholces? | 0 yes | 0 yes | $\bigcirc$ Yes | O Yes | O Yes | 0 Yes |  | O Yes | O yes |  | 0 Yes |  |  |  |  |  |
|  | O no | 0 No | O No | O No | O no | O no | O no | O No | O No | O no | O No | O Yes | O Yes O | O Yes | O Yes O No | O Yes O No |
| b. college programs? | O yes | O yes | 0 Yes | O Yes | O Yes | O Yes | O yes | O Yes | O Yes | 0 yes | 0 yes | 0 Yes | O Yes | O Yes | O yes |  |
|  | O No | O No | O No | O No | O No | O No | O No | O No | O no | O No | O No | O No | O no | O no | O no | O no |
| c. career cholces? | O yes | $\bigcirc \text { Yes }$ | $\mathrm{O} \text { Yes }$ | O Yes | 0 Yes | $\mathrm{O} \text { Yes }$ | $\mathrm{O} \text { Yas }$ | O Yes | O Yes | $\bigcirc \mathrm{O}$ Yes | O Yes | O Yes | O Yes | 0 Yes | O Yes | O yes |
|  | O No | O No | O No | O No | O No | O No | O No | O No | O No | 0 no | O No | O No | O No | 0 no | 0 No | O no |

PART II: CLASS INFORMATION
Please answer the following questions for each dass you taught the students on the Student List.




| $\left\|\begin{array}{l} n \\ 0 \\ 0 \\ 0 \\ u \\ 0 \end{array}\right\|$ | $\stackrel{4}{4}$ $\stackrel{y}{z}$ $\frac{2}{2}$ |  | $\bigcirc$ |
| :---: | :---: | :---: | :---: |
|  |  |  | $\square$ |
|  |  |  |  |
|  |  |  |  |
| $\left\|\begin{array}{l} 4 \\ \sharp \\ u \\ u \\ \vdots \\ u \end{array}\right\|$ | $\begin{aligned} & \stackrel{y y}{4} \\ & \frac{2}{2} \\ & \frac{2}{2} \end{aligned}$ | $\begin{aligned} & \text { 先 } \\ & \stackrel{2}{2} \\ & \frac{2}{2} \end{aligned}$ |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| $\begin{aligned} & 0 \\ & 3 \\ & 0 \\ & 5 \\ & 0 \end{aligned}$ | 出 $\frac{2}{5}$ $\frac{2}{2}$ | $\begin{aligned} & \text { M } \\ & \stackrel{y y y}{3} \\ & \frac{2}{2} \\ & \hline \end{aligned}$ |  |
|  |  | （1） |  |
|  |  |  |  |
|  | ๑๑囚囚囚囚囚囚囚区 | ＠の®の囚＠囚®＠囚 |  |
| $\begin{aligned} & n \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | 出 $\stackrel{3}{5}$ $\frac{2}{2}$ | $\begin{aligned} & \stackrel{y}{4} \\ & \frac{2}{2} \\ & \frac{2}{2} \end{aligned}$ |  |
|  |  |  |  |
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|  |  |  |  |
| $\begin{aligned} & \mathbf{3} \\ & 0 \\ & 0 \\ & 3 \\ & 0 \end{aligned}$ | $\begin{aligned} & \stackrel{\sim}{4} \\ & \stackrel{y}{5} \\ & \frac{2}{2} \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{4}{4} \\ & \frac{2}{5} \\ & \frac{2}{2} \\ & \hline \end{aligned}$ |  |
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|  | CLASS \#1 | CLASS \#2 | CL.ASS \#3 | CL.ASS \#4 | CLASS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13A. How often do you use the following teaching methods or media? <br> (MARK ONE ON EACH LINE) | Every Day <br> Almost Every Day <br> 1-2 Times a Weak <br> 1-2 Times a Month Never/Rarely | ```Every Day Almost Every Day 1-2 Times a Week 1-2 Times a Month Never/Rarely``` | ```Every Day Almos: Every Day 1-2 T'mes:Week 4-2 Times a Month Never/Rarely``` | Every Day <br> Almost Every Day <br> 1-2 Times a Week <br> 1-2 Times a Month <br> Never/Rarely | Every Day <br> Almos' Every Day <br> 1-2 Tlmes a Week <br> 1-2 Times a Month <br> Never/Rarely |
| a. Lecture | (1) (2) (3) (3) | (1) (2) (3) (1) (3) | (1) (2) (3) (3) | (1) (3) (3) (4) | (1) (2) (1) (4) 3 |
| b. Use computers | (1) (2) (3) (4) | (1) (2) (3) (4) | (1) (2) (3) (4) | (1) (2) (3) | (3) (2) (3) (4) |
| c. Use audio-visual material | (1) (2) (3) (4) (5) | (1) (2) 3 (4) | (1) (2) 3 ( 3 | (1) (2) 3 (4) 5 | (1) (2) (3) (1) |
| d. Have teacher-led wholegroup discussion | (1) (2) (3) (4) | (1) (2) (3) (4) 3 | (1) (2) (3) (4) | (1) (2) 3 (4) 3 | (1) (2) (3) (4) |
| e. Have students respond orally to questions on subject matter | (1) (2) (3) (4) 5 | (1) (2) (3) (4) 3 | (1) (3) (3) (4) | (1) (2) (3) | (1) (2) 3 (4) 3 |
| f. Have student-led wholegroup discussions | (1) (2) (3) 4 | (2) (2) (3) (4) | (1) (2) 3 (4) | (1) (2) (3) (4) | (1) (2) (3) (4) 3 |
| g. Have students work together in cooperative groups | (3) (2) (3) (4) | (2) (3) 3 (4) 3 | (1) (2) (3) (5) | (1) (2) (3) (4) (5) | (1) (2) (3) (4) 3 |
| h. Have students complete individual written assigninents or worksheets in class | (1) (2) (3) 3 | (1) (2) 3 (3) | (1) (2) (3) (4) | (1) (2) (3) (4) 5 | (1) (3) (4) |
| i. Have students give oral reports | (1) (2) (3) (4) | (1) (2) (3) (4) 3 | (1) (2) 3 (4) | (1) (2) (3) (4) (5) | (1) (3) (3) (4) 6 |

[^26]13B. Are any of the classes you listed at the beginning of Part II mathematics classes?
Yes 0 - (Go on to next page)
No $0-($ Skip to Question 18 on page 19)
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| FOR MATH TEACHERS ONLY | CLASS \#1 | CLASS \#2 | CLASS \#3 | CLASS \#4 | CLASS \#5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 15. Have you taught or reviewed the following topics In this math class during thls year? <br> (MARK ONE ON EACH LINE) <br> If you have reviewed and taught an item as new content, mark \#3 only. | No, tople is beyond the scope of this course <br> No, but'l will teach or review it later this school year <br> Yes, 1 taught it as new content <br> Yes, but 1 reviewed it only <br> No, bus it was taught previously | No, tople is beyond the scope of this course <br> No, but I will teach or review it later this school year <br> Yes, I taught it as now content <br> Yes, butil <br> reviewed it only <br> No, but it was taught provioualy | No, toulc is beyond the scope of this course <br> No, but I will teach or review it later ihls schoo! year <br> Yes, i taught it st now content <br> Yes, but I <br> reviewed it only <br> No, but it was taught prevously | No. topic is beyond the scope of this course <br> No, but I will teach or revlew it iater this school year <br> Yes, I taught it as new content <br> Yes, but $:$ <br> reviewed it only <br> No, but it was taught previously | Ne, topic is beyond the scope of this course <br> No, Dul 1 will teach or review il later this school year <br> Yes, 1 taught it as new content <br> Yes, but 1 <br> reviewed It only <br> No, but is was taugti previously |
| a. Integers | (1) (2) (3) (4) (5) | (1) (2) (3) (4) | (1) (2) (3) (4) (5) | (1) (2) (3) (4) (5) | - (1) (2) (3) (4) |
| b. Patterns and functions | (1) (2) (3) (4) (5) | (1) (2) (3) (4) | (1) (2) (3) (4) | (1) (2) (3) 3 (5) | (1) (2) (3) (4) (5) |
| c. Linear Equations | (1) (2) (3) (4) (5) | (1) (2) (3) (4) (3) | (1) (2) (3) (4) (3) | (1) (2) (3) 4 (5) | (1) (2) (3) (4) 5 |
| d. Polynomials | (1) (2) (3) (4) (5) | (1) (2) (3) (4) (5) | (1) (2) (3) (4) | (1) 2 9 (4) 5 | (1) (2) (3) (4) 5 |
| e. Properties of geometric figures | (1) (2) (3) (4) (5) | (1) (2) (3) (4) ${ }^{\text {(3) }}$ | (1) (2) (3) (3) | (1) (2) (3) (4) 5 | (1) (2) (3) (4) 5 |
| f. Coordinate Geometry | (1) (2) (3) (4) 3 | (1) (2) (3) (4) (5) | (1) (2) (3) (4) 5 | (1) (2) (3) (4) 5 | (1) (2) (3) (4) 5 |
| g. Proots | (1) (2) (3) (4) (3) | (1) (2) (3) 4 (5) | - (1) (2) (3) (4) | (1) (2) (3) (4) (5) | (1) (3) (3) (5) |
| h. Trigonometry | (1) (2) (3) (4) (5) | (1) (2) (3) (4) 5 | (1) (2) (3) (4) | (1) (2) (3) (4) 5 | (1) (3) (3) (4) |
| I. Statistics | (1) (2) (3) (4) (3) | (1) (2) (3) (4) (5) | (1) (2) (3) (4) (5) | (1) (2) (3) (3) | (1) (3) (3) (4) 3 |
| 1. Probability | (1) (2) (3) (4) (3) | (1) (2) (3) (4) (5) | (1) (2) (3) (4) (3) | (1) (2) (3) (4) 3 | (1) (2) 3 (4) 3 |
| k. Calculus | (1) (2) 3 (4) | (1) (2) (3) (4) 5 | (1) (2) (3) (4) (5) | (1) (2) (3) (4) | (1) (2) (3) (4) |
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FOR MATH TEACHERS ONLY
following question will provide Important data for understanding student performance.
16. Your students have been learning how to write math statements expressing proportions. bist night you ,
A one pound bag contains 50 percent more $\tan$ M\&Ms than green ones. Write mat green (g) M\&Ms, using $t$ and $g$ to stand for the number of tan and green
Here are some responses you get from students:

Which of the students has represented the relationship best? (MARK ONE)| 3 |
| :--- |
| 3 |
| 3 |

Kelly $-1.5 t=1$
Lee $-.50 t=g$
Pat $-.5 g=t$
Sandy $-g+1 / 2 g=t$
$1=$ It is possible to expialn why.
$2=$ It is just "one of those things
$2=$ It is just "one of those things" to be remembered.
$3=$ I'm not sure.
c. Any nonzero number to the zero power is $1.0\left(x^{0}=1\right)$
17B. Are any of the classes you listed at the beginning of Part Il science classes?


| CLASS \#3 | CLASS 44 | CLASS *5 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { Every Day } \\ & \text { Almost Every Day } \end{aligned}$ | Every Day | Every Day |
| Times a Week | 1-2 Almost Every Day | Almost Every Day |
| csamonth | 1-2 Times a Month | 1-2 Times a Monith |
| Rarely | Neyer/Rarely | Never/Rarely |
| (1) (3) (3) (3) (3) | (1) (2) (3) (4) | (1) (3) (3) (5) |
| (1) (2) (3) (4) | (1) (2) 50 (5) | (1) (3) (3) (1) 3 |
| (1) (2) 3 (1) 3 | (1) (2) (3) 4 (5) | (1) (2) (3) 38 |
| (1) (2) (3) (4) (5) | (1) (2) (3) (1) | (1) (2) (3) (3) |
| (1) (2) (3) (3) | (1) (2) (3) 0 (3) | (1) (2) 3 (1) |
| (1) (2) 3 (3) | (1) (2) 3 (3) | (1) (2) (3) (1) (3) |
| (1) (2) (3) (3) | (1) (3) 3 (3) | (1) (3) (3) (2) 3 |
| (1) (3) (3) 3 | (1) (2) (3) (3) | (1) (2) (3) 0 (3) |
| (1) (2) (3) (4) (3) | (1) (3) (3) (1) | (1) (3) 3 (1) 3 |
| (1) (2) (3) (4) (3) | (1) (3) 3 (3) 3 | (1) (2) 3 3 (3) |


| FOR SCIENCE TEACHERS ONLY | CLASS \#1 | CLASS \#2 | PLASS \#3 | CLASS \#4 | CLASS \#5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 20. Have you taught or reviewed the following topics in this Biology class during this year? | No, tople is beyond the scope of this course <br> No, but I will teach or review It later this achool year | No, tople is beyond the zcope of this course <br> No, but 1 will teach or review it later this school year | No, topic is beyond the scope of this course <br> No, but I will teach or review it ister this school year | No, topte is beyond the scope of this course <br> No, but 1 will teach or review il later this school year | No. topic is beyond the scope of this course <br> No, but I will teach or review it later this school year |
| I did not list a Bioiogy ciass at the beginning of Part II. . . . . . O (SKIP TO QUESTION 2:1 ON PAGE 22) | Yon, I trught It as new content <br> Yes, but 1 foviewed it only | Yes, I taught it as new content <br> Yes, butl revlewed it only | Yes. 1 taught it us now content <br> Yes, bul 1 reviswed It only | Yes, 1 tought It as new conten! <br> Yes, but 1 reviewed it only | Yes, 1 tought it at new conlent <br> Yes, but I reviewed It only |
| (MARK ONE ON EACH LINE) | No, out lt wes laught prevtouly | No, but it was tought previously | No, but it was taught previously | No, but it was teught proviously | No, but it wat laught previously |
| If you have reviewed and laught an item as new content, mark \#3 only. |  |  |  |  |  |
| a. Cell structure and function | (1) (2) (3) (4) | (1) (3) (3) (4) (3) | (1) (3) (3) (4) | (1) (2) (3) 3 | (1) (3) 3 (1) 3 |
| b. Genetics | (1) (2) 3 (1) 3 | (1) (2) (3) (1) | (1) (2) (3) (3) | (1) (2) (1) 3 | (1) (2) (3) 3 |
| c. Diversity of life | (1) (2) (1) 3 | (1) (3) (1) (3) | (1) (2) 3 (3) | (1) (3) 3 (1) | (1) (2) (3) (4) |
| d. Metabolism and regulation of the organism | (1) (2) (3) | (1) (2) (3) (1) | (1) (2) 3 (3) | (1) (3) (3) (1) $^{3}$ | (1) (2) (3) (3) |
| e. Behavior of the organism | (1) (3) (3) | (1) (3) 3 | (1) (2) (1) 3 | (1) (2) (3) 3 | (1) (2) (3) 3 |
| f. Reproduction and development of the organism | (1) (2) (3) (4) | (1) (2) (3) (3) | (1) (3) 3 (1) (3) | (1) (2) (3) (4) 3 | (1) (2) 3 (4) |
| g. Human blology | (1) 3 3 3 | (1) (3) (4) | (1) (3) (3) (3) | (1) (2) (3) (3) | (1) (3) (1) 3 |
| h. Evolution | (1) (3) (1) 3 | (1) (3) 3 (3) | (1) (3) (3) (4) 3 | (1) (2) (3) (3) | (1) (3) 3 (1) 3 |
| 1. Ecology | (1) (3) (3) 3 | (1) (2) (3) 0 | (1) (2) (3) (4) | (1) (3) 0 (3) | (1) (2) (1) (3) |
| 180 |  |  |  |  | \S1 |



| FOR SCIENCE TEACHERS ONLY | CLASS \#1 | CLASS \#2 | CLASS \#3 | CLASS \#4 | CLASS \#5. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 22. Have you taught or reviewed the following topics in this Physics ciass during this year? | No, tople is beyond the scope of this course <br> No, but I will teach or review it later this school year | No, toplc is beyond the scope of this course <br> No, but I will teach or revilew it later this school year | No, topic is bayond the scope of this course <br> No, but I will teach or review it tater this school year | No, tople is beyond the scope of this cotrie <br> No, but I will teach or review it tater this schoot year | No, lople is beyond the scope of this course <br> No, but I will teach or review it later this school year |
| I did not list a Physics dass at the beginning of Part II. . ... O (SKIP TO QUESTION 23 ON PAGE 24) | Yen, I laught it has new content <br> Yes, but I reviewed it only | Yes, 1 taught it as new content Yes, but 1 reviewed II only | Yes, I taught it as new content <br> Yes, but 1 reviewed it only | Yes, I taught it es new content <br> Yes, but 1 reviewed It only | Yes, I taught It as new content <br> Yes, but 1 reviewed it only |
| (MARK ONE ON EACH LINE) <br> If you have reviewed and taught an item as new content, mark \#3 only. | was taugh prevlously | No, but it was laught previously | No, but it was taught previously | No, but it was laught peeviously | No, but it was taught previously |
| a. Forms and sources of energy | (1) (2) (3) (4) | (1) (2) 3 (4) | (1) (2) (3) (4) | (1) (2) (3) (3) | (1) (2) (3) (1) |
| b. Forces, time, motion | (1) (2) (3) (4) 3 | (1) (3) 3 (1) 3 | (1) (2) (3) (4) | (1) (2) (3) (1) | (1) (2) (3) (4) 5 |
| c. Molecular/nuclear physics | (1) (2) (3) (4) 3 | (1) (2) (3) (1) 3 | (1) (2) 3 (4) | (1) (2) (3) (4) | (1) (2) (3) (4) |
| d. Energy/matter transformations | (1) (2) (3) 3 | (1) (2) (3) (4) | (1) (2) (3) 5 | (1) (2) (3) (4) | (1) (2) (3) (4) |
| e. Sound and vibrations | (1) (2) 3 (1) (3) | (1) (2) (3) (4) (3) | (1) (2) (3) (4) (3) | (1) (3) 3 (4) (3) | (1) (3) (3) (4) 3 |
| f. Light | (1) (2) (3) (0) | (1) (2) (1) (4) (5) | (1) (3) 3 (4) 3 | (1) (2) (3) (1) | (1) (2) (1) (3) |
| g. Electricity and magnetism | (1) (2) (3) (1) | (1) (2) (3) (1) (5) | (1) (3) (3) (3) | (1) (2) (3) (1) (3) | (1) (2) (3) © |
| h. Solids/fluids/gases | (1) (2) (3) (4) | (1) (3) 3 (1) (3) | (1) (2) (3) (1) | (1) (3) (3) (4) (3) | (1) (3) (1) (4) |
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## SEVERAL QUESTIONS IN THIS SECTION REFER TO YOUR SUBJECT AREA'S DEPARTMENT AND DEPARTMENT CHAIR. IF YOUR SCHOOL IS NOT ORGANIZED INTO FORMAL DEPARTMENTS, OR IF YOU ARE NOT PART OF A DEPARTMENT, PLEASE ANSWER THESE QUESTIONS ABOUT YOUR SUBJECT AREA OR GROUPING. <br> If YOU DO NOT HAVE A DESIGNATED DEPARTMENT CHAIR, PLEASE ANSWER THESE QUESTIONS ABOUT YOUR SUBJECT AREA'S CURRICULAR ADVISOR OR LEAD TEACHER. <br> IF YOU TEACH CLASSES IN MORE THAN ONE SUBJECT AREA, REFER TO THE BOXED INSTRUCTIONS ON PAGE 3 OF THE QUESTIONNAIRE.

PART III. SCHOOL CLIMATE AND PRACTICES

1. How much control do you feel you have IN YOUR CLASSROOM over cach of the following areas of your planning
and teaching?
(MARK ONE ON EACH LINE)

2. On the scale below, indicate the extent to which you agree or disegree with each of the foliowing statements.
(MARK ONE ON EACH LINE)
Strongly agree
Agree
Disagree
Strongly disagree
a. If i try realiy hard, I can get through even to the most difficult or unmotivated students (1) (3) (4)
b. Ifeel that it's part of my responsibility to keep siudents from dropping out of school (1) (3) (1)
c. If some students in my class are not doing well, I feel that I should change my approach to the subject (1) (2) ©
d. By trying a different teaching method, I can significantly affect a student's achievement (1) (2) (1) (1)
e. There is really very littie I can do to ensure that most of my students achleve at a high level (1) (2) (1)
f. I am certain I am making a difference in the lives of my students (1) (1) C
3. Indicate the importance you give to each of the following in setting grades for students in your classes (excluding special education students).

## (MARK ONE ON EACH LINE)

## Very Important Somewhat important Not important

a. Achievement relative to the rest of the class $\qquad$

b. Absolute level of achievement $\qquad$

c. Individual improvement or progress over past performance
d. Effort $\qquad$
ө. Class participation $\qquad$
f. Completing homework assignments
g. Consistently attending class $\qquad$
4. How often does your department/subject area hold orntf meetings?
(MARK ONE)
a. Never
b. 1.3 times per term
c. 1-3 times per month $\qquad$
d. Once a week .0
e. 2-3 times per week
5. To what extent do you agree that each of the following statements describes elther characteristic or an enforced policy of your departmenì or subject area?
(MARK ONE ON EACH LINE)
Strongly agree
Agree
Disagree
Strongly disagree
a. In this department I am encouraged to experiment with teaching $\qquad$(2) (3) (d)
b. There is a wide degree of individual autonomy in curriculum and course content
c. I am encouraged to be familiar with the contents and specific goals of the courses taught by other teachers in my department
(1) (3) (3)
d. I am encouraged to coordinate the content of my courses with teachers in my department $\qquad$ (1) (2) (3) (1)

ө. Faculty consultation or approval is needed for changs in course objectives or contents $\qquad$ (1) (2) (1)
f. Iam encouraged to coordinate the content of my course with teachers outside my department $\qquad$
g. There is a strong commitment to $A P$ and Honors courses in my department subject area
h. Sections of courses in my department are differentiated according to student's academic achievement level
(1) (1) (3)

1. My department offers special support for low-achieving students
(1) (2) (3) (1)
j. Routine departmental duties and paperwork interfere with my job of teaching
k. Teachers in this department are continually learning and seeking new ideas
I. Most of the teachers in my department share my bellefs and values about the central mission of the school

m . There is a great deal of cooperatlve effort among my department's members
```
(1) (2) (1)
```

n. Goals and priorities for this department are clear
5. To what extent do you agree that each of the following statements describes a characteristic of your department chair, subject area leader or curricular advisor?

I am the department chair, subject area leader, or curricular advisor. O SKIP TO QUESTION 7
(MARK ONE ON EACH LINE)
Strongly agree
Agree
Disagree
Strongly disagree
a. The department chair is interested in innovation and new ideas
(1) (3) (3) (1)
b. The department chair sets priorities, makes plans, and sees that they are carried out
(1) (2) (3) (4)
c. The department chair lets staff members know what is expected of them
(1) (2) (3) (1)
d. The department chair usually consults with staff members beiore he/she makes decisions that affect us $\qquad$ (1) (3) (3) (4)
e. The department chair takes an active role in obtaining resources for the department $\qquad$ (1) (2) (3) (4)
f. The department chair is supportive and encouraging
(1) (2) (3) (1)
7. To what extent do you agree that each of the following statements describes a characteristic or enforced policy of your school or school administrator?
(MARK ONE ONE EACH LINE)
Sirongly agree
Agree
Disagree
a. The academic standards at this school are too low
(1) (2) (3) (1)
b. There is broad agreement among the entire school faculty about the central mission of the school
(1) (3) (3) (d)
c. The school administrator knows what kind of school he/she wants and has communicated it to the staff $\qquad$ (1) (1) (1) (1)
7. (Cont.) To what extent do you agree that each of the following statements describes a characteristic or enforced policy of your school or school administrator?
(MARK ONE ON EACH LINE)
Strongly agree
Agree
Disagree
Strongly disagree
d. The school administrator deals effectively with pressures from outside the school (parents, school board, buigetary) that might otherwise affect my teaching
e. The school administrator knows the problems faced by the staff $\qquad$ (1) (2) (3) (1)
f. Necessary materials (e.g., textbooks, supplies, copy machine) are readily available as needed by the staff
g. Staff members are recognized for a job well done
(1) (2) (3) (4)
h. Gradırg practices are consistent and fair $\qquad$ (1) (2) (3) (1)
i. I es against cheating are actively enforced
8. Please indicate which of the following places are available and how much of your out-of-class time during the school day you actually spend in each.
(MARK ONE ON EACH LINE)
Available, I spend most time Available, I spend some time Available, I spend little time Available, $t$ spend no time Not available
a. Faculty lounge(1) (2) (3) (3)b. Smoking area(1) (3) (3) (5)
c. Lunch room
(2) (1) (1) (5)
d. My classroom
(1) (2) (3) (4) (5)
e. My office $\qquad$(1) (3) (3) (3)
f. Department office (1) (3) (1) (3)
g. Classroom of other teachers (1) (3) (3) (1) (1)
h. Outside of school(1) (2) (1) (1) (1)
9. How much of your out-ot-class sime during the school day do you spend with each of the following persons?
(MARK ONE ON EACH LINE)
Most of my time Some of my time Little of my time None of my time
a. Teachers in my department $\qquad$ (1) (3) (3) (3)
b. Teachers outside my department $\qquad$ (1) (2) (1)
c. Department chair/subject area leader/ curricular advisor $\qquad$ (1) (3) (1)
d. Principal $\qquad$ (1) (1) (3) (1)
e. Other school administrator $\qquad$ (1) (2) (1) (1)
10. How frequently do you discuss each of the following issues with other teachers or department advisor?
(MARK ONE ON EACH LINE)

-13. To what extent has each of the following people at thls school helped you Improve your teaching or solve an Instructional or class management problem?

## (M/. 马K ONE ON EACH LINE)

Not applicable Extremely he!ptul Moderately helpful Not helpful Did not provide any help

a. Princlpal or school head $\ldots \ldots .$. (1) (2) (3) (1) (5)
b. Department chair/subject area leader

c. Other school administrators $\qquad$
d. Teachers in my department/subject area
(1) (2) (3) (1) (1)
e. Teachers outside my department/ subject area
(1) (2) (3) (1) (5)
f. Personnel group or committee $\qquad$ CD (2) (3) (1)
14. Did any of the following events. take place this school year? If so, what was the source of these changes?

## (MARK ONE ON EACH LINE)

Decislon to change at district or state level
Decision to change at school level Decision to change at depariment level Personal decision to make change Declsion to change did not occur
a. Changed classroom testing practices
(1) (2) (3) (1) (3)
b. Changed standards for evaluation of student performance
(1) (2) (3) (4) (1)
c. Changed curricular focus $\ldots \ldots$. ...... (1) (3) (1) (1)
d. Changed teaching practices
(1) (2) (3) (1)
15. To what exteni do you agree with each of the following statements describing student behavior and pollicies in your school?
(MARK ONE ON EACH LINE)
Strongly agree
Agree
Disagree
Strongly disagree
a. The amount of student tardiness, class cutting, and absenteeism in this school interferes with my teaching
(1) (3) (3) (4)
b. The attitudes and habits students bring to my class greatly reduce their chances for academic success
(1) (2) (3) (4)
c. Rules for student behavior are consistently enforced in this school
(1) (2) (3) (4)
16. Indicate the degree to which each of the following is a problem with students in your school.

## (MARK ONE ON EACH LINE)

Serious problem
Moderate problem
Minor problem Not a problem
a. Tardiness
(1) (3) (3) (4)
b. Physical conflicts among students ....... (1) (2) (3) (1)
c. Gang activities (1) (3) (3) (4)
d. Robbery or theft (1) (2) (3) (a)
e. Vandalism . . . . . . . . . . . . . . . . . . . . . . . . . (1) (2) (3) (1)
f. Absenteeism . . . . . . . . . . . . . . . . . . . . . . . (1) (2) (3) (1)
g. Sale of dirugs to students on the way to or from school and/or on school grounds (1) (3) (3) (1)
h. Use of alcohol
i. Use of illegal drugs (1) (2) (3) (1)
(1)(3) (3)
j. Possession of weapons ................ (1) (2) (1) (1)
k. Physical abuse of teachers .............(1) (2) (3) (1)

1. Class cutting . . . . . . . . . . . . . . . . . . . . (1) (3) (3) (3)
m. Students under the influence of drugs/ alcohol while at school (1) (3) (3) (1)
n. Verbal abuse of teachers $\ldots \ldots . \ldots \ldots$. (1) (2) (3) (1)
o. Racial/ethnic conflicts among students ...(1)(2) (1) (1)
p. Cheating on tests or written assignments . . . . . . . . . . . . . . . . . . . . . (I) (1) (1)

## PART IV. TEACHER BACKGROUND AND ACTIVITIES

- 1. What is your sex?
(MARK ONE)
Male
Female

2. Which best describes you?
(MARK ONE)

Asian or Pacific Islander . . . . . . . . . . . . . . . 1
Hispanic, regardiess of race . . . . . . . . . . . . 2
Black, not of Hispanic origin . . . . . . . . . . . . 3
White, not of Hispanic origin . . . . . . . . . . . . 4
Amerlcan Indian or Alaskan Native . . . . . . 1
Note: For comfidentiality masone, "Aaian or Pecific telender" and "Americen indian or Aleakan Native" ware combined Into a alngle catagory labaled "Other."
3. What is the year of your blith?

4. Counting this year, how many years in total have you taught at either the elementary or secondary level?
(IF ANSWER IS ZERO, WRITE "00")
Number of years taught at the elementary level (K-6)

Number of years taught at the secondary level (7-12)

5. Counting this year, how many years in total have you taught in this school?


Ploase write the numbers In the boxes . . .

Then darken the ovels

- thet correspond with the numbers above.

6. What is your employment status in this school or school system?
(MARK ONE)
Regular full-time position
Regular part-time position
Substitute teacher

- 7 hat type of math and science teaching
- ifications do you hold from the state where you sh?
(MARK ONE FOR EACH SUBJECT)

Math Science
I am not certified
4
4

Regular or Standard Certification offered in your state . .... . 1

Private school certification
5 5

Probationary certification (the initial certification issued after satisfying all requirements except the completion of a probationary period)

2
2

Temporary, provisional, or e.nsrgency certification (require additional coursework before regular certification can be obtained) .... . 3 ..... 3

Both Regular/Standard certification and private school certification .6 .6
8. What academic degree(s) do you hold?
(MARK ALL THAT APPLY)
No degree . . . . . . . . . . . . . . . . . . . . . . . . . @]
(SKIP . O QUESTION 11)
Assoclate degree ......................... (21)
(SKIP TO QUESTION 11 IF YOU HAVE RECEIVED AN ASSOCIATE DEGREE ONLY)
Bachelor's ..... (42)
ivaster's ..... (Q)
Education specialist or professional diplomaat least one year of workbeyond master's level(4)
Doctorate ..... (05)
First professional degree(e.g., M.D., D.D.S.)(16)
9. What were your major and minor fields of study for your bachelor's degree?
(MARK ALL THAT APPLY)

## Major Minor

| a. | Education | O....... 0 |
| :---: | :---: | :---: |
| b. | Mathematics | $\bigcirc$ |
| c. | Natural/physical sciences | $\bigcirc$ |
| d. | Life/biological sciences | $\bigcirc$ |
| e. | Computer science | O....... $\bigcirc$ |
| $f$. | Foreign language | $\bigcirc$ |
| g. | English |  |
| h. | History (or social studies! social srience) | O...... |
|  | Other |  |

10. What were your primary and secondary fields of study for your highest graduate degree?

Not applicable; did not receive a graduate degree
(MARK ALL THAT APPLY)
Primary Secondary

| a. | Education | O....... $\bigcirc$ |
| :---: | :---: | :---: |
| b. | Mathematics | - |
| c. | Natural/physical sciences | $\bigcirc \ldots$ |
| d. | Life/biological sciences | $\bigcirc$ |
| ө. | Computer science | Q....... |
| $f$. | Foreign language |  |
| g. | English |  |
| h. | History (or social studies/social science) | O....... $\bigcirc$ |
|  | Other |  |

11. Darken the oval beside any of the following subjects which you have taught this year.
(MARK ALL THAT APPLY)
Mathematics ..... (1)
Science ..... (1)
Humanities ..... (1)
English Foreign language ..... (1)
Social science/social studies ..... (1)
Histury ..... (1)
Computer science ..... (1)
Vocational/technical/business education ..... (1)
Physical education ..... (1)
Special education ..... (1)
Other ..... (1)
12. Darken the oval beside the courses which you have taught most frequently this year. If you have taught two or more courses with the same frequency, mark all of those courses.

## MATHEMATICS

(61) General Math
(2) Pre-Algebra
(39) Algebral
(a4) Algebra II
(25) Geometry
(66) Trigonometry
(D) Pre-Calculus
(1) Calculus
(9) Consumer/Business Math
(D) AP Calculus
(11) Other Math

## SCIENCE

(12) General Science
(13) General Physical Science
(4) Earth Science
(1) Principles of Technology
(16) Biology
(7) Chemistry
(11) Physics
(1) AP Science
(80) Other Science

## OTHER

(21) Computer Science
(22) Other non-math, non-science course
13. How many undergraduate and graduate courses have you faken In the sublect area you teach most frequently? A course ls one that msets 2-5 classroom hours per week during one semester or quarter. If you don't know, please give your best estimate. IF TEACHING ANY MATH SUBJECT, INCLUDE ALL MATH COURSES. IF TEACHING ANY SCIENCE SUBJECT, INCLUDE ALL SCIENCE COURSES.
(MARK ONE ON EACH LINE)
8 or more courses
5-7 courses
1-4 courses
None
a. Undergraduate courses
(1) (2) (3) (1)
b. Graduate courses
(1) (2) (3) (3)
14. During the current (1991-92) school year, how often have you felt satisfied with your teaching job?
(MARK • 'E)
Almost never
Some of the time
Most of the time
All of the time

15. Did either of the following take place within your teaching this school year?
(MARK ONE ON EACH LINE)

|  | Yes | No |
| :---: | :---: | :---: |
| a. Started to teach a new subject | $\bigcirc$ |  |
| b. Started to teach a different ability level of students |  | $\bigcirc$ |

16. Have you received any of the following types of support in the last $\mathbf{4} 2$ months for in-service education in your main subject area(s)?
(PARKK ONE ON EACH L'NE)
Yes No
a. Reieased time from teaching

b. Travel and/or per diem expenses....
c. Stipend(s)
d. Professional growth credits
17. Please indicate whether you have participsied in any of the following activities during this pas'، school year.

## (MARK ONE ON EACH LINE)

Yes No
a. School-system sponsored workshops during school year
 .
b. School-system sponsored workshops during summer $\qquad$
$\square$
c. Sctool-wide curriculum committee $\qquad$
d. Department curriculum committee
$\qquad$
$\square$
e. Committee work or special assignment other than curriculum
f. University extension courses (non. credit bearing)
g. College courses in EDUCATION during school year
h. College courses in subject fields OTHER THAN EDUCATION during school year $\qquad$
i. College courses in EDUC, TION during the summer
j. College courses in subjects OTHER THAN EDUCATION during the summer
$\qquad$
k. Professional growth activities sponsored by professionai association(s) $\qquad$
18. Teacher enrichment programs can focus on many different topics, such as classroom techniques, advances in technology, applications of subjects, etc. Have you attended any teacher enrichment programs this year?

| Yes $\ldots \ldots . . \ldots . O \rightarrow$ | $($ GO ON TO |
| ---: | :--- |
|  | QUESTION 19 |
|  | ON PAGE 33) |
| No $\ldots . . \ldots . . . . . O \rightarrow$ |  |
|  | $($ SKIP TO |
|  | QUESTION 22 |
|  | ON PAGE 33) |

ON PAGE 33)
19. In the teacher enrichment programs you attended this year, were any of the following topics discussed?
(MARK ONE ON EACH LINE)

|  | Yes iNo |
| :---: | :---: |
| a. Uses cf technology | $\bigcirc$ |
| b. Applications of science and math | $\bigcirc$ |
| c. In-depth study of a specialized subject |  |
| d. Student assessment | $\bigcirc \ldots$ |
| e. Classroom management | O.... |
| f. Cooperative !earning | - |
| g. Improving bigher order thinking skills $\qquad$ | $\bigcirc \ldots .$ |

IF YOU ANSWERED "NO" TO $19 \mathrm{a}-\mathrm{g}$, SKIP TO QUESTION 22.
20. During the enrichment programs you attended, how long did the coverage of each of the following topics last?
(MARK ONE ON EACH LINE)
Was not covered
5 days or more
$2-4$ days
1 day or less
21. Did your participation in enrichment programs have any of the following effects on you or your teaching?
(MAFK ALL THAT APPLY FOR EACH TOPIC)
Changed my teaching practices Encouraged me to seek further
information on this topic
Changed my thinking in this area
Was not heipful
Was not discussed
a. Uses of technology
(1) (1) (1) (1)
b. Applications of science and math . . (1) (3) (3) (1) (6)
c. In-depth study of a specialized (1) (1) (1) (1) subject (1) (1) (1) (1)
d. Studerit assessment (1) (3) (1) (1)
e. Classroom management . . . . . . . . . (1) (2) (1) (1) (1)
f. Couperative learning .............. (1) (2) (1) (1) (1)
g. Improving higher order thinking skills (1) (3) (1) (1)
22. During the first semester of the current school year, how many days of teaching did you miss for any reason?
(MARK ONE ON EACH LINE)

| 12+days$8-11$ |  |
| :---: | :---: |
|  |  |
| 5-7 |  |
| 3-4 |  |
| 1-2 |  |
| 0 days |  |

a. Administrative leave
(21) (23) (30) (6)
b. Illness
(11) (23) (3) (1)
23. How often did a supervisor or official from your school or district formally observe your teaching during the first semester of the current school year?
(MARK ONE)
Not allowed to observe ..... (1)
Never ..... (22)
One time only ..... (93)
Two to three times a semester/term ..... (42)
At least once a month ..... (25)
At least once a week ..... (6)

## DATE COMPLETED:

| Month | Day | Year |
| :---: | :---: | :---: |
|  |  | 92 |
|  |  |  |

Please continue with Question 24 on page 35
24. Please provide the information requested below so we can reach you if any clarification of your responses is needed. (Please print)

| (Last name) | (First name) | (M1) | (Maiden name) |
| :---: | :---: | :---: | :---: |
|  | こ Home | Best time of day to call: | $\begin{aligned} & =A M \\ & =P M \end{aligned}$ |
| (Telephone Number) | OOffice (school) | Best time of day to call: | $\begin{aligned} & \bigcirc A M \\ & \bigcirc P M \end{aligned}$ |

## Appendix F

Critical Items from the Second
Follow-Up Teacher Questionnaire

## NELS:88 Second Follow-Up Teacher Questionnaire Critical Items

## Variable Name

F2T2_3
F2T2_4
F2T2_5
F2T2 7
F2T2_14
F2T2_15
F2T2_18
F2T2_19
F2T2_20
F2T2_21.
F2T2_22
F2T3_13
F2T3_16
F2T4_1
F2T4_2
F2T4_4
F2T4_5
F2T4_6
F2T4-7
F2T4_8
F2T4_9
F2T4_10
F2T4_11

## Description

Track of class in which teacher instructed student
Achievement lievel of student in class compared io average 12th grader
Number of students enrolled in ciass
Why teacher was assigned to class
Emphasis given to instructional objectives in math class
Topics taught or reviewed in math class
Emphasis given to instructional objectives in science class
Frequency of instructional activities in science clas:
Topics taught or reviewed in biology class
Topics taught or reviewed in chemistry class
Topics taught or reviewed in physics class
School personnel provided teaching or other assistance to teacher
Degree to which student behaviors are problems at school
Gender of teacher
Race of teacher
Number of years taught at elementary and secondary level
Number of years taught at current school
Employment status in school system
Type of state math and science certification held
Academic degrees held by respondent
Minor and major fields of study for bachelor's degree
Primary and secondary fields of study for highest graduate degree
Subjects taught this year

## Appendix G

## Second Foliow-Up Teacher

Abbreviated Questionnaire Items

## NELS:88 Second Foilow-Up Abbreviated Teacher Questionnaire Items

Variable Name
$\mathrm{F}_{2} \mathrm{il}_{1} 2$
F2T1_3
F2T1_4
F2T1_5
F2T1_6A
F2T1_6B
F2T1_6C
F2T1 6D
F2T1-8
F2T1_10
F2T:1_11
F2 $\mathrm{T}_{1} 12$
F2T1_13
F2T1_14
F2T1_15
F2T1_16
F2T2_3
F2T2-4
F2T2_5
F2T2_6
F2T2_7
F2T2_8
F2T2_14A
F2T2_14B
F2T2_14C
F2T2_14D
F2T2_14E
F2T2.14F
F2T2_14G
F2T2_14II
F2T2_14I
F2T2_14J
F2T2_15A
F2T2_15B
F2T2_15C
F2T2_15D
F2T2_15E
F2T2_15F
F2T2_15G
F2T2_15H
F2T2

## Description

Is student motivated to get good grades
Does student relate well to others
Student motivated to pursue postsecondary education
Does student talk with teacher outside of class about school work
Spoken with parents about with student's academic performance
Spoken with parents aboui problems with student's behaviors in school
Spoken with parents about student's homework assignments
Spoken with parents about student's absenteeism
Level of difficulty of class
Is student's performance limited by English language proficiency
Does student perform below ability
Does student complete homework on time
How often student is absent
How often is student tardy
How often is student attentive in class
How often is student disruptive in class
Track of class in which teacher instructed student
Achievement of student in class compared to average twelfth grader
Number of students enrolled in class
Number of racial/ethnic minority students in class
Why teacher was assigned to class
Minutes of homework assigned each day
Emphasis given to understanding nature of proofs
Emphasis given to memorizing facts, rules, and steps
Emphasis given to learning to represent problems in multiple ways
Emphasis given to integrating different branches of mathematics
Emphasis given to understanding multiple approaches to problems
Emphasis given to performing calculations with speed and accuracy
Emphasis given to showing importance of math in daily life
Emphasis given to solving equations
Emphasis given to raising questions and formulating conjectures
Emphasis given to increasing students' interest in math
Were integers taught or reviewed
Were patterns and functions taught or reviewed
Were linear equations taught or reviewed
Were polynomials taught or reviewed
Were properties of geometric figures taught or reviewed
Was coordinate geometry taught or reviewed
Were proofs taught or reviewed
Was trigonometry taught or reviewed
Was statistics taught or reviewed

NELS:88 Second Follow-Up Abbreviated Teacher Questionnaire Items

## Variable Name

F2T2_15J
F2T2_15K
F2T2_19A
F2T2_19B
F2T2_19C
F2T2_19D
F2T2_19E
F2T2_19F
F2T2_19G
F2. ${ }^{-19 H}$
F2T2_191
F2T2_19J
F2T2_20A
F2T2_20B
F2T2_20C
F2T2_20D
F2T2_20E
F2T2_20F
F2T2_20G
F2T2_20H
F2T2_201
F2T2_21A
F2T2_21B
F2T2_21C
F2T2_21D
F2T2_21E
F2T2_21F
F2T2_21G
F2T2_21H
F2T2_21I
F2T2_21J
F2T2_22A
F2T2_22B
F2T2_22C
F2T2_22D
F2T2_22E
F2T2_22F
F2T2_22G
F2T2 22H
F2T3_1A
F2T3_1B

## Description

Was probability taught or reviewed
Was calculus taught or reviewed
Frequency of individual or small group experiments or observations
Frequency of demonstrations or leading students in observations
Frequency of written reports on experiments or observations
Frequency of discussions on current issues or evenis in science
Frequency of computer use of data collection and analysis
Frequency of computer use for demonstrations/simulatiors
Frequency of students giving oral reports
Frequency of students designing and conducting own projects
Frequency of discussions of opportunities in science and technology
Frequency of discussions about controversial technologies
Was cell structure and function taught or reviewed
Was genetics taught or reviewed
Was diversity of life taught or reviewed
Was metabolism and regulation of the organism taught or reviewed
Was behavior of the organism taught or reviewed
Was reproduction of the organism taught or reviewed
Was human biology taught or reviewed
Was evolution taught or reviewed
Was ecology taught or reviewed
Was atomic and molecular structure taught or reviewed
Were properties of and changes in matter taught or reviewed
Was the periodic system taught or reviewed
Were energy relationships in chemical systems taught or reviewed
Were reactions taught or reviewed
Was inorganic chemistry taught or reviewed
Was organic chemistry taught or reviewed
Was environmental chemistry taught or reviewed
Were chemistry of life processes taught or reviewed
Was nuclear chemistry tuught or reviewed
Were forms and sources of energy taught or reviewed
Were forces, time, and motion taught or reviewed
Were molecular or nuclear physics taught or reviewed
Were energy or matter transformations taught or reviewed
Were sound and vibrations taught or reviewed
Was light taught or reviewed
Were electricity and magnetism taught or reviewed
Were solids, fluids, and gases taught or reviewed
Classroom control over selecting textbooks
Classroom control over selecting content, topics, and skills taught

## NELS:88 Second Follow-Up Abbreviated Teacher Questionnaire Items

## Variable Name

F2T3_1C
F2T3_1D
F2T3_1E
F2T4_1
F2T4_2 F2T4_7 F2T4_14

## Description

Classroom control over selecting teaching techniques
Classroom control over disciplining students
Classroom control over determining amount of homework
Gender of teacher
Race of teacher
Type of state math and science certification held Teacher's satisfaction with teaching job

## Appendix H

Public Use Record Layout for the NELS:88 Second Follow-Up Teacher Tape

## NELS:88 Second Follow-Up Public Use Teacher Data File Record Layout (Magnetic Tape Version)

The original EBCDIC files delivered on magnetic tape have the following structure (where LRECL $=$ logical record layout and BLKSIZE = blocking factor):
raw data:
LRECL $=478, \quad$ BLKSIZE $=27724$
SAS and SPSS-X cards: LRECL $=80, \quad$ BLKSIZE $=27920$

| VARIABLE |  |
| :--- | :--- |
| NAME |  |
|  |  |
| POSITION |  |
| STU_ID | $1-7$ |
| F2SCr_ID | $8-12$ |
| F2TCH_ID | $13-16$ |
| F2SUBJCT | $17-17$ |
| F2CLS_ID | $18-19$ |
| F2T1_2 | $20-20$ |
| F2T1_3 | $21-2!$ |
| F2T1_4 | $22-22$ |
| F2T1_5 | $23-23$ |
| F2T1_6A | $24-24$ |
| F2T1_6B | $25-25$ |
| F2T1_6C | $26-26$ |
| F2T1_6D | $27-27$ |
| F2T1_7 | $28-28$ |
| F2T1_8 | $29-29$ |
| F2T1-9 | $30-30$ |
| F2T1_10 | $31-31$ |
| F2T1_11 | $32-32$ |
| F2T1_12 | $33-33$ |
| F2T1_13 | $34-34$ |
| F2T1_14 | $35-3:$ |
| F2T1_15 | $36-36$ |
| F2T1_16 | $37-37$ |
| F2T1_17A | $38-38$ |
| F2T1_17B | $39-39$ |
| F2T1_17C | $40-40$ |
| F2T1_17D | $41-41$ |
| F2T1_18A | $42-42$ |
| F2T1_18B | $43-43$ |
| F2T1_19A | $44-44$ |
| F2T1_19B | $45-45$ |
| F2T1_19C | $46-46$ |
| F2T2_3 | $47-47$ |
| F2T2_4 | $48-48$ |
| F2T2_5 | $49-50$ |
|  |  |


| F2T2_6 | 51-52 |
| :---: | :---: |
| F2T2-7A | 53-53 |
| F2T2_7B | 54-54 |
| F2T2_7C | 55-55 |
| F2T2_7D | 56-56 |
| F2T2-7E | 57-57 |
| F2T2_7F | 58-58 |
| F2T2_8 | 59-61 |
| F2T2_9A | 62-62 |
| F2T2-9B | 63-63 |
| F2T2_9C | 64-64 |
| F2T2_10 | 65-67 |
| F2T2_11 | 68-70 |
| F2T2_12A | 71-72 |
| F2T2_12B | 73-74 |
| F2T2_12C | 75-76 |
| F2T2_12D | 77-78 |
| F2T2 12E | 79-80 |
| F2T2_12F | 81-82 |
| F2T2_12G | 83-84 |
| F2T213AA | 85-85 |
| F2T213AB | 86-86 |
| F2T213AC | 87-87 |
| F2T213AD | 88-88 |
| F2T213AE | 89-89 |
| F2T213AF | 90-90 |
| F2T213AG | 91-91 |
| F2T213AH | 92-92 |
| F2T213AI | 93-93 |
| F2T2_13B | 94-94 |
| F2T2_14A | 95-95 |
| F2T2_14B | 96-96 |
| F2T2_14C | 97-97 |
| F2T2_14D | 98-98 |
| F2T2_14E | 99-99 |
| F2T2_14F | 100-100 |
| F2T2_14G | 101-101 |
| F2T2_14H | 102-102 |
| F2T2_14I | 103-103 |
| F2T2_14] | 104-104 |
| F2T2_15A | 105-105 |
| $\mathrm{F} 2 \mathrm{~T} 2{ }_{-} 15 \mathrm{~B}$ | 106-106 |
| F2T2_15C | 107-107 |
| F2T2_15D | 108-108 |
| F2T2_15E | 109-109 |
| F2T2_15F | 110-110 |
| F2T2_15G | 111-111 |
| F2T2 15H | 112-112 |
| F2T2_151 | 113-113 |


| F2T2 15J | 114-114 |
| :---: | :---: |
| F2T2 15K | 115-115 |
| F2T2_16 | 116-117 |
| F2T217AA | 118-118 |
| F2T217AB | 119-119 |
| F2T217AC | 120-120 |
| F2T2_17B | 121-121 |
| F2T2_18A | 122-122 |
| F2T2_18B | 123-123 |
| F2T2_18C | 124-124 |
| F2T2_18D | 125-125 |
| F2T2_18E | 126-126 |
| F2T2 18F | 127-127 |
| F2T2_18G | 128-128 |
| F2T2_18H | 129-129 |
| F2T2_19A | 130-130 |
| F2T2_19B | 131-131 |
| F2T2_19C | 132-132 |
| F2T2_19D | 133-133 |
| F2T2_19E | 134-134 |
| F2T2_19F | 135-135 |
| F2T2_19G | 136-136 |
| F2T2_19H | 137-137 |
| F2T2 19I | 138-138 |
| F2T2_19J | 139-139 |
| F2T2_20 | 140-140 |
| F2T2_20A | 141-141 |
| F2T2_20B | 142-142 |
| F2T2_20C | 143-143 |
| F2T2_20D | 144-144 |
| F2T2_20E | 145-145 |
| F2T2_20F | 146-146 |
| F2T2_20G | 147-147 |
| F2T2_20H | 148-148 |
| F2T2_20I | 149-149 |
| F2T2_21 | 150-150 |
| F2T2_21A | 151-151 |
| F2T2_21B | 152-152 |
| F2T2_21C | 153-153 |
| F2T2_21D | 154-154 |
| F2T2 21E | 155-155 |
| F2T2_2iF | 156-156 |
| F2T2_21G | 157-157 |
| F2T2_21H | 158-158 |
| F2T2_21I | 159-159 |
| F2T2_21J | 160-160 |
| F2T2_22 | 161-161 |
| F2T2_22A | 162-162 |
| F2T2_22B | 163-163 |


| F2T2_22C | 164-164 |
| :---: | :---: |
| F2T2-22D | 165-165 |
| F2T2 22E | 166-166 |
| F2T2-22F | 167-167 |
| F2T2 22G | 168-168 |
| F2T2_22H | 169-169 |
| F2T2-23 | 170-170 |
| F2T2-24 | 171-171 |
| F2T2_25 | 172-172 |
| F2T2_26 | 173-173 |
| F2T3_1A | 174-175 |
| F2T3_1B | 176-177 |
| F2T3_1C | 178-179 |
| F2T3-1D | 180-181 |
| F2T3-1E | 182-183 |
| F2T3-2A | 184-18. |
| F2T3-28 | 185-185 |
| F2T3_2C | 186-186 |
| F2T3_2D | 187-187 |
| F2T3_2E | 188-188 |
| F2T3_2F | 189-189 |
| F2T3-3A | 190-190 |
| F2T3_3B | 191-191 |
| F2T3_3C | 192-192 |
| F2T3_3D | 193-193 |
| F2T3_3E | 194-194 |
| F2T3_3F | 195-195 |
| F2T3_3G | 196-196 |
| F2T3.4 | 197-197 |
| F2T3-5A | 198-198 |
| F2T3_5B | 199-199 |
| F2T3_5C | 200-200 |
| F2T3_5D | 201-201 |
| F2T3-5E | 202-202 |
| F2T3_5F | 203-203 |
| F2T3_5G | 204-204 |
| F2T3_5H | 205-205 |
| F2T3_5I | 206-206 |
| F2T3_5J | 207-207 |
| F2T3_5K | 208-208 |
| F2T3_5L | 209-209 |
| F2T3_5M | 210-210 |
| F2T3-5N | 211-211 |
| F2T3 6 | 212-212 |
| F2T3_6A | 213-213 |
| F2T3_6B | 214-214 |
| F2T3_6C | 215-215 |
| F2T3_6D | 216-216 |
| F2T3_6E | 217-217 |

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$? 118$

| F2T3_6F | 218-218 |
| :---: | :---: |
| F2T3-7A | 219-219 |
| F2T3-7B | 220-220 |
| F2T3_7C | 221-221 |
| F2T3-7D | 222-222 |
| F2T3_7E | 223-223 |
| F2T3_7F | 224-224 |
| F2T3_7G | 225-225 |
| F2T3_7H | 226-226 |
| F2T3.7 | 227-227 |
| F2T3-8A | 228-228 |
| F2T3_3B | 229-229 |
| F2T3_8C | 230-230 |
| F2T3 8D | 231-231 |
| F2T3 8E | 232-232 |
| F2T3_8F | 233-233 |
| F2T3_8G | 234-234 |
| F2T3 8H | 235-235 |
| F2T3 9A | 236-236 |
| F2T3_9B | 237-237 |
| F2T3 9C | 238-238 |
| F2T3_9D | 239-239 |
| F2T3_9E | 240-240 |
| F2T3_10A | 241-241 |
| F2T3_10B | 242-242 |
| F2T3_10C | 243-243 |
| F2T3_10D | 244-244 |
| F2T3_10E | 245-245 |
| F2T3_10F | 246-246 |
| F2T3_10G | 247-247 |
| F2T3_10H | 248-248 |
| F2T3_11A | 249-249 |
| F2T3_11B | 250-250 |
| F2T3_11C | 251-251 |
| F2T3_11D | 252-252 |
| F2T3_11E | 253-253 |
| F2T3_11F | 254-254 |
| F2T3_11G | 255-255 |
| F2T3_11H | 256-256 |
| F2T3_12A | 257-257 |
| F2T3_12B | 258-258 |
| F2T3_12C | 259-259 |
| F2T3_12D | 260-260 |
| F2T3_12E | 261-261 |
| F2T3_12F | 262-262 |
| F2T3_12G | 263-263 |
| F2T3_13A | 264-264 |
| F2T3_13B | 265-265 |
| F2T3_13C | 266-266 |


| F2T3 13D | 267-267 |
| :---: | :---: |
| F2T3-13E | 268-268 |
| F2T3_13F | 209-269 |
| F2T3-14A | 270-270 |
| F2T3_14B | 271-271 |
| F2T3_14C | 272-272 |
| F2T3_14D | 273-273 |
| F2T3_15A | 274-274 |
| F2T3 15B | 275-275 |
| F2T3_15C | 276-276 |
| F2T3_16A | 277-277 |
| F2T3-16B | 278-278 |
| F2T3-16C | 279-279 |
| F2T3-16D | 280-280 |
| F2T3-16E | 281-281 |
| F2T3-16F | 282-282 |
| F2T3-16G | 283-283 |
| F2T3-16H | 284-284 |
| F2T3-161 | 285-285 |
| F2T3-16J | 286-286 |
| F2T3_16K | 287-287 |
| F2T3_16L | 288-288 |
| F2T3_16M | 289-289 |
| F2T3-16N | 290-290 |
| F2T3-160 | 291-291 |
| F2T3_16P | 292-292 |
| F2T4_1 | 293-293 |
| F2T4_2 | 294-294 |
| F2T4_3 | 295-296 |
| F2T4_4A | 297-298 |
| F2T4_4B | 299-300 |
| F2T4-5 | 301-302 |
| F2T4-6 | 303-303 |
| F2T4_7A | 304-305 |
| F2T4_7B | 306-307 |
| F2T4_8A | 308-308 |
| F2T4_8B | 309-309 |
| F2T4_8C | 310-310 |
| F2T4_8D | 311-311 |
| F2T4_8E | 312-312 |
| F2T4_8F | 313-313 |
| F2T4-8G | 314-314 |
| F2T4-9A1 | 315-315 |
| F2T4-9B1 | 316-316 |
| F2T4_9Cl | 317-317 |
| F2T4_9D1 | 318-318 |
| F2T4_9E1 | 319-319 |
| F2T4-9F1 | 320-320 |
| F2T4-9G1 | 321-321 |


| F2T4-9H1 | $322-322$ |
| :--- | :--- |
| F2T4-9I1 | $323-323$ |
| F2T4-9A2 | $324-324$ |
| F2T4-9B2 | $325-325$ |
| F2T4-9C2 | $326-326$ |
| F2T4-9D2 | $327-327$ |
| F2T4-9E2 | $328-328$ |
| F2T4-9F2 | $329-329$ |
| F2T4-9G2 | $330-330$ |
| F2T4-9H2 | $331-331$ |
| F2T4-912 | $332-332$ |
| F2T4-10 | $333-333$ |
| F2T410A1 | $334-334$ |
| F2T410B1 | $335-335$ |
| F2T410C1 | $336-336$ |
| F2T410D1 | $337-337$ |
| F2T410E1 | $338-338$ |
| F2T410F1 | $339-339$ |
| F2T410G1 | $340-340$ |
| F2T410H1 | $341-341$ |
| F2T410I1 | $342-342$ |
| F2T410A2 | $343-343$ |
| F2T410B2 | $344-344$ |
| F2T410C2 | $345-345$ |
| F2T410D2 | $346-346$ |
| F2T410E2 | $347-347$ |
| F2T410F2 | $348-348$ |
| F2T410G2 | $349-349$ |
| F2T410H2 | $350-350$ |
| F2T410I2 | $351-351$ |
| F2T4-11A | $352-352$ |
| F2T4-11B | $353-353$ |
| F2T4-11C | $354-354$ |
| F2T4-11D | $355-355$ |
| F2T4-11E | $356-356$ |
| F2T4-11F | $357-357$ |
| F2T4-11G | $358-358$ |
| F2T4-11H | $359-359$ |
| F2T4-11I | $360-360$ |
| F2T4-11I | $361-361$ |
| F2T4-11K | $362-362$ |
| F2T4-11L | $363-363$ |
| F2T4-12A | $364-364$ |
| F2T4-12B | $365-365$ |
| F2T4-12C | $366-366$ |
| F2T4-12D | $367-367$ |
| F2T4-12E | $368-368$ |
| F2T4-12F | $369-369$ |
| F2T4_12G | $370-370$ |
|  |  |


| F2T4 12H | 371-371 |
| :---: | :---: |
| F2T4_12I | 372-372 |
| F2T4_12I | 373-373 |
| F2T4_12K | 374-374 |
| F2T4_12L | 375-375 |
| F2T4_12M | 376-376 |
| F2T4_12N | 377-377 |
| F2T4_120 | 378-378 |
| F2T4_12P | 379-379 |
| F2T4_12Q | 380-380 |
| F2T4_12R | 381-381 |
| F2T4_12S | 382-382 |
| F2T4_12T | 383-383 |
| F2T4_12U | 384-384 |
| F2T4_12V | 385-385 |
| F2T4_13A | 386-386 |
| F2T4_13B | 387-387 |
| F2T4_14 | 388-388 |
| F2T4_15A | 389-389 |
| F2T4_15B | 390-390 |
| F2T4_16A | 391-391 |
| F2T4_16B | 392-392 |
| F2T4_16C | 393-393 |
| F2T4_16D | 394-394 |
| F2T4_17A | 395-395 |
| F2T4_17B | 396-396 |
| F2T4_17C | 397-397 |
| F2T4_17D | 398-398 |
| F2T4_17E | 399-399 |
| F2T4_17F | 400-400 |
| F2T4_17G | 401-401 |
| F2T4_17H | 402-402 |
| F2T4_171 | 403-403 |
| F2T4_17J | 404-404 |
| F2T4_17K | 405-405 |
| F2T4_18 | 406-406 |
| F2T4_19A | 407-407 |
| F2T4_19B | 408-408 |
| F2T4_19C | 409-409 |
| F2T4_19D | 410-410 |
| F2T4_19E | 411-411 |
| F2T4_19F | 412-412 |
| F2T4_19G | 413-413 |
| F2T4_20A | 414-414 |
| F2T4_20B | 415-415 |
| F2T4_20C | 416-416 |
| F2T4_20D | 417-417 |
| F2T4_20E | 418-418 |
| F2T4_20F | 419-419 |

H-8

| F2T4_20G | $420-420$ |
| :--- | :--- |
| F2T421A1 | $421-421$ |
| F2T421A2 | $422-422$ |
| F2T421A3 | $423-423$ |
| F2T421A4 | $424-424$ |
| F2T421A5 | $425-425$ |
| F2T421B1 | $426-426$ |
| F2T421B2 | $427-427$ |
| F2T421B3 | $428-428$ |
| F2T421B4 | $429-429$ |
| F2T421B5 | $430-430$ |
| F2T421C1 | $431-431$ |
| F2T421C2 | $432-432$ |
| F2T421C3 | $433-433$ |
| F2T421C4 | $434-434$ |
| F2T421C5 | $435-435$ |
| F2T421D1 | $436-436$ |
| F2T421D2 | $437-437$ |
| F2T421D3 | $438-438$ |
| F2T421D4 | $439-439$ |
| F2T421D5 | $440-440$ |
| F2T421E1 | $441-441$ |
| F2T421E2 | $442-442$ |
| F2T421E3 | $443-443$ |
| F2T421E4 | $444-444$ |
| F2T421E5 | $445-445$ |
| F2T421F1 | $446-446$ |
| F2T421F2 | $447-447$ |
| F2T421F3 | $448-448$ |
| F2T421F4 | $449-449$ |
| F2T421F5 | $450-450$ |
| F2T421G1 | $451-451$ |
| F2T421G2 | $452-452$ |
| F2T421G3 | $453-453$ |
| F2T421G4 | $454-454$ |
| F2T421G5 | $455-455$ |
| F2T4_22A | $456-457$ |
| F2T4-22B | $458-459$ |
| F2T4-23 | $460-461$ |
| F2T4-23M | $462-463$ |
| F2T4-23D | $464-465$ |
| F2CXTWT | $466-475$ |
| F2CXTFLG | $476-476$ |
| F2TEQFLG | $477-477$ |
| F2F1SCFL | $478-478$ |
|  |  |

* Denotes a fleat variable. The number listed indicates the largest possible number of digits that may appear to the right of the decimal point.


## Appendix 1

## NELS:88 Second Follow-Up Teacher Codebook

Note: Because the teacher component is a contextual data source for second follow-up students, the frequencies appearing in this codebook are reported at the student level. The teacher data file has been structured to reflect the number of second follow-up student participants for whom teacher question laire data are available ( $N=15,695$ ). Weighted frequencies reflect the use of the second follow-up student contextual weight (F2CXTWT).

For the user's convenience, some second follow-up questionnaire variables were recoded to facilitate using NELS:88 second follow-up student-level teacher data in cross-wave and crosscohort analyses. These recodes generally involved the reordering of item values. Codebook item values and value labels reflect these recodes, as does the teachur questionnaire that appears in Appendix E. Before program set-up, users are advised to read the codebook entries carefully.

All variables are included in both public and private use versions of the data file; however, some variables which were modified or suppressed as a result of confidentiality analyses are so noted in this codebook.


MOTE: This veriable was suppressed on the fublic deta file by NCES in eccordance with the confidentiolity provisions of PL 100-297.

## Question F2TCH_ID

F2TCH_ID SEQUENTIAL TEACHER ID
Sequentiel teecher ID


Que:tion F2CLS_ID
Tepe Pos in 18-19
Formet:
Formet: 12
F2CLS_ID CLASS ID NUMBER
Class ID number

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER-- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \hline \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| ---- | 01 | 7655 | 48.8\% | 100.0\% |
| RESERVED CODES: no teacher quex. | 0000.0000 | 5842 | 37.24 | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

NOTE: Values 91 (no math elass) and 92 (no scioncaclass)
Indicate thet totudent's teecher did not complete the
questionnaire for thet mathemetics of sciencacher itudent.

PART I: STUDENT INFORMATION

| Question | Tepa Potic |
| :--- | :--- |
| 20-20 |  |

F2T1_2 STUDENT MOTIVATED TO WRK FOR GOOD GRADES d: thls student motiveted to work hard for good grades?


Que:tion 1_3
Tope Pos; 21-21
F2T1_3 STUDENT $R^{-1}$ ATES WELL TO OTHERS
Doet this student sesm to relate well to others?

| RESPOHSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES | 1 | 8866 | 56.5\% | 90.0 H |
| NO. | 2 | 675 | E. 6\% | 10.0\% |
| RESERVED CODES: <br> NO TEACHER QUEX |  |  | 37.2\% | (MISS) |
| MISSING. . . . . . . . . | 8 | 112 | 0.7\% | (MISs) |
| TOTALS: |  | 16596 | 100. ON | 1C0.0\% |

Question $\quad$ Tepe Pos $\quad$ Formit: 22-22

F2T1_4 STUDENT MOTIVATED TO PURSUE POSTSEC ED
Does this student sem motiveted to pursua poitsecondary educetion?


## Que:tion

Topa Pozi 23-23
F2T1_E STUDENT TALKS WITH TCHR OUTSIDE OF CLASS
Doss this titudent talk with you outside of class bout school work?


Que:lton 1, 6

Have you spoken with the student' parents/guardiens this yaar about the following?


F2T1_6A SPOKEN TO PARENTS ABT STUDNT PERFORMANCE
Froblems with tudent' acedemic performance


## Question 1_6B

Tape Pos ${ }^{\text {Formet: }}$ 25-26
F2T1_6B SPOKEN TO PARENTS ABOUT STUDENT EEHAVIOR
Problems with student'z bahevior in school


Question 6C

Tepe Pos: ${ }^{\text {26-26 }}$
Formet: $1_{1}$
F2T1_6C SPOKEN TO PARENTS ABOUT STUDENT HOMEWORK
Student's homework estignment

| RESPONSE | COOES | FREQ | PER-CENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES | 1 | 1366 | 8.74 | 15.34 |
| NO. | 2 | 8352 | 53.2\% | 84.74 |
| RESERVED CODES: <br> NO TEACHER GUEX. |  | 5842 | 37.2\% | (MISS) |
| NULTIPLE RESPONSE | 6 | 8 | $0.0 \%$ | (MISS) |
| MISSING...... | 8 | 132 | O.8M | (mlss) |
| TOTALS: |  | 15695 | 100.C. | 100.0\% |

## Quetition i_60

Tope Pos: 27-27
Formet: I1
F2Ti 6D SPCKEN TO PARENTS ABT STUDNT AESENTEEISM
Student'sbentooitm


## Quettion 1,7

Tape Poz. 28-28
F2Ti_7 PARENTS' LEVEL OF INVOLVEMENT
How involved ore the parent: of thit ctudent in his/her ecodemic performence?

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WGTD |
| :---: | :---: | :---: | :---: | :---: |
| NOT INVOLVED | 1 | 1182 | 7.5\% | $13.6 \%$ |
| SOMEWHAT I NVOLVED | 2 | 2043 | 13.0\% | 22.36 |
| VERY INVOLVED. | 3 | 1684 | 10.7\% | 17.1\% |
| DON'T KNON'. | 4 | 4409 | 28.1\% | 47. 14: |
| RESERVED COOES : |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.2\% | (M155) |
| WULTIPLE RESPONSE | 6 | 1 | $0.0 \%$ | (MISS) |
| MISSING. . . . . . . . | 8 | 534 | 3. 4\% | (MISS) |
| TOTALS: |  | 15695 | 100.0* | 100.0\% |

Question
Tepe Pos: 29-28
F2T1 8 DIFFICULTY LEVEL OF CLASS FOR STUDENT
The difficulty level of this clest is...

| RESPONSE | coots | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| TOO DIFFICULT FOR THIS STUDENT | 1 | :141 | 7.3* | 12.04 |
| NOT CHALLENGING ENOUGH FOR |  |  |  |  |
| THIS STUDEMT. . . . . . . . . | 2 | 695 | 4.4\% | 7.04 |
| THE APPROPRIATE LEVEL FOR |  |  |  |  |
| THIS STUDENT. | 3 | 7924 | 50.5\% | 81.0\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.2\% | (MISS) |
| MULTIPLE RESPONSE | 6 | 1 | 0.0\% | (MISS) |
| MISSING. | 8 | 92 | 0.6\% | (MISS) |
| totals: |  | 15695 | 100.0\% | 100. 7 H |

## Quettion


F2T1_g STUDENT'S NATIVE LANGUAGE IS ENGLISH
is this etudent's notive lenguege English? (Note: Native


TOTALS:

Tope Pos: ${ }^{\text {31-31 }}$
Question $1=10$
F2T1_10 STU PERFORMNCE LIMITED GY ENGL PROFICNCY
Is this student's ocedemic performence in your clest Itmited by his or her level of English lenguige proficiancy?



F2T1_11 STUDENT PERFORMS BELOW ABILITY
Doet thit etudent conetstently perform below obility?


Quetion
Tepo Pot $i^{33-33}$
Format:
F2T1_12 HOW OFTEN STUCENT COMPLETES HOMEWORK
How often does this studont cemplote homework essignment on time?

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER. | 1 | 170 | 1.1\% | 1.64 |
| RARELY. | 2 | 797 | 5.14 | 8.94 |
| SOME OF THE TIME | 3 | 1890 | 12.0\% | 21.14 |
| MOST OF THE TIME | 4 | 4032 | 25.7\% | 40.74 |
| ALL OF THE TIME. | 5 | 2817 | 17.9\% | 27.74 |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.24 | (M15s) |
| MULTIPLE RESPONSE | 6 | 1 | 0.0\% | (miss) |
| MISSING.......... | 8 | 146 | 0.9\% | (MISS) |
| TOTALS: |  | 16695 | 100.0\% | 100.06 |

Question $1=13$

Tope Pos; $34-34$
Formet: 11
F2T1_13 HOW OFTEN STUOENT IS ABSENT
How often it this student obsent?

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER. | 1 | 944 | 6.0\% | 8.2\% |
| RARELY. | 2 | 5653 | $36.0 \%$ | 68.15\% |
| SOWE OF THE TIME | 3 | 2769 | 1\%.6\% | 28.4\% |
| MOST OF THE TIME | 4 | 340 | 2.2\% | 3.6\% |
| Al. OF THE TIME. | 5 | 33 | 0.2\% | 0.3\% |
| RESERYED CODES: |  |  |  |  |
| NO TEACHER QUEX MISSING. | 8 | 8842 | $37.2 \%$ 0.7 | (MISS) |
| TOTALS: |  | 16685 | 100.0\% | 100.0\% |

Tepo Pot F $^{\text {35-35 }}$
Question 1-14
F2T1_iA HOW OFTEN STUDENT IS TARDY
How often is this student terdy?

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CEN' } \end{aligned}$ | $\begin{aligned} & \text { WGTV } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER. | 1 | 4466 | 28.5\% | 45.14 |
| RARELY | 2 | 3717 | 23.74 | 37.6\% |
| SOME OF THE TIME. | 3 | 1307 | 8.34 | 14.8\% |
| HOST OF THE TIME. | 4 | 209 | 1.34 | 2.2\% |
| ALL OF THE TIME. | 5 | 26 | 0.2\% | 0.3\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | $37.2 \%$ $0.0 \%$ | (MISS) |
| MULTIPLE RESPONSE | 8 | 127 | O.84 | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | $100 . \mathrm{cm}$ |

## Qug:tion 15

Top: Pos i ${ }^{36-36}$
Format:
FRTI_15 HOW OFTEN STUDENT IS ATTENTIVE IN CLASS
How often is this student ettentive in cless?


## Question 1_16

Tape Posi ${ }^{37-37}$
F2T1_16 HOW OFTEN STUDENT IS DISRUPTIVE IN CLASS
How often ts this student disruptive in ciass?


[^27]Sive you spoken to guidence counselor or enother teecher
this echool year bbout the following?

Tepe Pos it 42-42
Formoti it

## Question 1_18A

F2T1_18A WRITTEN POST-SECONDARY SCHIL REC FOR STU
written erecomendetion for this student for -
postsecondery institution?

Quootion 1-18B

Tepe Pos $\mathrm{F}_{1}$ 43-43
Formet:
F2T1_18B WRITTEN JOB RECOMENDATION FOR STUDENT
written erecommendetion for this student for a summer job
or opert-time or fuli-time job ifter high school.?

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES. | 1 | 142 | 0.9\% | $2.1 \%$ |
| NO. | 2 | 8920 | 66.8\% | 97.9\% |
| RESERVED CODES: |  | 5842 | 37.2\% | (MiSs) |
| MISSING.. | 8 | 791 | $5.0 \%$ | (miss) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question 1_19.

Hes this itudent dizecused with you...
Question
F2T1_19A STUDENT DISCUSSED COLLEGE CHOICES W/TCHR

## Quetition 1_18c

Tepe Pes: 46-48
2TI_18C STUDENT DISCUS8ED CAREER CHOICES W/TCHR
cereer choices?

| RESPON8E | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES. | 1 | 2480 | 18.8\% | 28.2\% |
| NO. | 2 | 6588 | $42.0 \%$ | 71.84 |
| RESERVED CODES: NO TEACHER QUEX MIssinc. | 8 | 5842 785 | $37.2 \%$ $5.0 \%$ | (M188) |
| TOTALS: |  | 15895 | 100.0\% | 100.0\% |

PART 11: CLASS INFORMATION


F2T2_3 'TRACK' CLASS IS CONSIDERED TO DE
Which of the following best describes the 'treck' this cless is considered to be?

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| REMED IAL | 1 | 301 | 1.8W | 3.4\% |
| GENERAL | 2 | 2081 | 13.3\% | 22.8\% |
| VOC/TECH/EUSINESS | 3 | 432 | 2.8\% | 6.2\% |
| COLLEGE PREP/HONORS | 4 | 5828 | $37.1 \%$ | 69.7\% |
| AP. ${ }^{\text {a }}$ ( | 5 | 1122 | 7.1\% | 8.9\% |
| RESERYED COOES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.24 | (M15S) |
| MULTIPLE RESPONSE | 6 | 6 | 0.0\% | (MISS) |
| Missing. . . . . . | 8 | 83 | 0.64 | (M.SS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question 2-4

Tape Pos if
Format:
F2T2_4 ACHIEVEMENT LEVEL OF CLASS VS AVG STUD
Which of the following best describes the echiovement level of the students in this class comperid with the iverige 12th grade student in this school? This ciass consitit primerily of students with:

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| HIGHER ACMIEVEMENT LEVELS..... | 1 | 4973 | 31.74 | 46.7\% |
| AVERAGE ACHIEVEMENT LEVELS | 2 | 2866 | 18.3\% | $31.8 \%$ |
| LOWER ACHIEVEMENT LEVELS. ${ }^{\text {a }}$ - | 3 | 1121 | 7.14 | 13.1\% |
| WIDELY DIFFERING ACHIEVEWENT |  |  |  |  |
| LEVELS. . . . . . . . . . . . . . . . . | 4 | 825 | 5.3\% | 8.7\% |
| RESERVED CODES: no teacher quex. <br> MISSING | 8 | 5042 69 | 37.74 $0.4 \%$ | $\begin{aligned} & \text { (MISS) } \\ & (\text { MISS }) \end{aligned}$ |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question $1=198$

Tepe Pon; 45-45
Formet:
F2T1_IGB STUDENT DISCUSSED COLLEGE PROGRMS W/TCHR
colloge programs?

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES. | 1 | 2130 | 13.6\% | 22.6\% |
| NO. | 2 | 6913 | 44.0\% | 77.4\% |
| RESERVED CODES: NO TEACKER QUEX |  | 8842 | 37.24 | (M1SS) |
| MULTIPLE RESPONSE | 6 | 084 | 0.0\% | (Miss) |
| MISSINĜ......... | 8 | 8 c 9 | 6.2\% | (mlSS) |
| TOTALS: |  | 15696 | 100.0\% | 100.0* |


| Question 2_5 | Tepe Pos A $^{48-60}$ Formet: 12 |
| :---: | :---: |

F2T2_5 NUMBER OF STUDENTS ENROLLED IN CLASS
How meny etudents erefwere enrolied in this cleas

## RESPONSE

RESERVED COOES:
NO TEACHER QUEX
NO TEACH
MISSING.
TOTALS:

CODES $-\infty$

Question 2_
Tope Potin E1-Ẽ2
F2T2_6 NUMBER OF MINORITY STUDENTS IN CLASS
How meny students in this clesserefromminority
racielothnic groups (e.g. Bieck, Hisponic, Asien)? (if racieliothnic groups (e.gif Bieck,


TOTALS:

## Question $2=7$

Why ware you essigned to teech this eless? (MARK ALL THAT
Why wis

| Question 2_7A | Tope Pos:83-E3 |
| :--- | :--- |
| F2T2_7A DEPT CHAIR ASSIGNED CLASS |  |

My depertment cheir or eree coordinetor esifgned it to me


Tepe Pos i 84-84
Quetion 2-78

Formatitis
F2T2_7B ANOTHER AOWIHSTRATOR A褁SIGNED CLAES
Anothar echool edminfetrator esefgned it to me

Quetton 2-7C

Tepe Pos, 85-65
F2T2_7C TEACHER DECIDED TO TEACH CLASS
I decided to taech it

Quettion 270

Tope Pos: 56-56
F2T2_7D TEACHER'S TURN TO TEACH CLASS
it was my turn to tasch it


Tepe Pos; 57-67
Formet:
F2T2_TE TCHR WAS MOST QUALIFIED TO TEACH CLASS
I wet moet qualified to taech it


Tope Pos: 58-B8
F2T2_7F TEACHER HAD THE MOST SENIORITY
I had the most senority

## Quetiton 2_8

Tepe Po: ${ }^{\text {Formats }}$
Format: is
F2T2_8 MINUTES PER DAY OF HOMEWORK FOR CLASS
Approximately how much homawork so you typiceily eestan Aech tey to this clese?


How often do you do oech of the following with homawork -ssignmante?

## Question 2_ga

Tepa Pos, 62-62
F2T2_9A KEEP RECORDS OF WHO TURNED IN ASSICNMENT
Keep racords of who turned in the essignment

Question 2_sB $\quad$ Tape Posifis3-63

F2T2_9B RETURN ASSIGHWENTS WITH GRADES/CORRECTNS
Return mestonments with grades or corrections


Quastion 2_9C
Tape Po: 64-64
F2T2 gC OISCUSS COMPLETED ASSIGMMENT IN CLASS
Discuss the completed msignment in ciase

| RESPONSE | CODES | FREQ | PER ${ }^{-}$ CENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| ALL OF THE TIME | 1 | 5786 | 36.9\% | 62.8\% |
| MOST OF THE TIME | 2 | 2130 | 13.6\% | 26.0\% |
| SOME OF THE TIME | 3 | 864 | 5. 8\% | 10.0\% |
| NEVER.... | 4 | 94 | 0.6\% | 1.2\% |
| RESERVEO COOES: NO TEACHER QUEX. |  | 5842 | 37.3\% | (M158) |
| MISSING. . | 8 | 979 | 6. 2\% | (mISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Question 210
---0--2_10
Tepe Po: ; 65-67
F2T2_10 MINUTES PER WEEK CLA3S MEETS REGULARLY
Approximetely how many minutes per weot does this eltzs met regulity ( not including limb periods)?

## REEPONSE


RESERVED CODES：
NO TEACMER QUEX．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 998
TOTALS：

| $\begin{aligned} & \infty \\ & \infty \\ & \infty \\ & \hline \end{aligned}$ |  <br>  |
| :---: | :---: |
|  |  |
|  | $0000000000000000000000000000 \omega 0000000000000-00000000000-00000$ <br>  <br>  |
|  | $000000000000000000000000000000-000000 \vec{\pi}-000-000-0000000000000$ <br>  <br>  |



RESPONSE
－－－ー－ー－ー－

## 



## Question 2



Quettion 2_12A
Tope Posi
Formet:
71-72
F2T2_12A CLASS TIME SPENT INSTRUCTIAG WHOLE CLASS
Providing instruction to the cless es whole


Question 2-128
Tepe Posi
Formet: $2^{73-74}$
F2T2_12B CLASS TIME SPENT INSTRUCTING SMALL GROUP Providing tristruction to smell groups of atudents


## Question 212C,

Tope Poti 75-76
F2T2_12C CLASS TIME SPENT INSTRUCTING INDIYIDUALS
Providing inatruction to individuel students


Question 2 12D
Tape Pos ${ }^{\text {Formet }}{ }^{77-78}$
F2T2_12D CLASS TIME SPENT MAINTAINING ORDER
Motntetning order ldisciplining etudents


| Question 2 12E | Tope Posin 79-80 |
| :--- | :--- |

F2T2_12E CLASS TIME SPENT ADMINISTERING TESTS
Admintitering tests or quixxes


## Question $\quad$ Tope Posi2F B1-82

F2T2_12F CLASS TIME SPENT ON ADMINISTRATIVE TASKS
Performing routine edmintstritive tesks (o.g., taking
ettondence, moking onnouncoments, etc.)


F2T2_12G CLASS TIME SPENT CONDUCTING LAB PERIODS
Conducting leb pertode


Question 2 _13A

How often do you use the following teaching mathods or medic?

Tope Po: i, 85-85
Question 213AA

F2T213AA TEACHER'S USE OF LECTURE
Lectura

| RESPOHSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { wCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RAREL | 1 | 280 | 1.64 | 3.1\% |
| 1-2 TJMES A M | 2 | 235 | 1.84 | 3.54 |
| 1-2 TIMES A WEEX. | 3 | 1670 | 10.6\% | 19.34 |
| ALmost every day | 4 | 5414 | 34.84 | 68.8\% |
| EVERY DAY. .. | 8 | 1338 | $8.5 \%$ | 16.3\% |
| RESERVED COOES: NO TEACHER GUEX |  | 5842 | 37.24 | (M135) |
| Missing...... | 8 | 915 | 6.8\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Quoltion 213AB

F2T213AB TEACHER'S USE OF COMPUTERS
Uee computere

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { GENT } \end{aligned}$ | $\begin{aligned} & \text { WCTO } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RARELY | 1 | 5869 | 37.44 | 68.2\% |
| 1-2 TIMES $A$ MÓNTH. | 2 | 2011 | 12.84 | 20.24 |
| 1-2 TIMES A WEEK. | 3 | 643 | 4.1\% | 7.5\% |
| ALMOST EVERV DAY. | 4 | 241 | 1.8\% | 2.7\% |
| EYERY DAY.. ...... | 5 | 106 | 0.7\% | 1.4\% |
| RESERVED CODES: NO TEACHER OUEX |  | 5842 | 37.24 | (MISS) |
| MULTIPLE RESPONSE | 6 | 2 | $0.0 \%$ | (M1SS) |
| MISSING.......... | 8 | 981 | 6.3\% | (M1SS) |
| rotals: |  | 15695 | 100.0\% | 100.0\% |

TOTALS:

Quetion 213AC
Tope Po: ; 87-87
Formet:
F2T213AC TEACHER's USE OF AUDIO-VISUAL MATER:AL
Use oudtorvizuel meteriel

| REFPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RARELY | 1 | 2640 | 16.8* | 28.5\% |
| 1-2 TIMES A MONTH. | 2 | 2661 | $17.0 \%$ | 30.7\% |
| 1-2 TIMES A WEEK. | 3 | 1901 | 12.14 | 21.1\% |
| ALMOST EVERY DAY. | 4 | 1309 | 8.34 | 15.1\% |
| EVERY DAY.... | 5 | 372 | 2.4\% | 4.6\% |
| reserved codes: <br> no teacher quex <br> MISSING. | 8 | 5842 | $\begin{array}{r} 37.2 \% \\ 6.2 \% \end{array}$ | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Tepe Po: ${ }^{\text {88-88 }}$
Formet:
Formet: il
DISCUSSIONS
F2T213AD TEACHER'S USE OF WHOLE-GROUP
Heve teecher-led wholengroup discustions

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RARELY | 1 | 1433 | 9.14 | 16.7\% |
| 1-2 TIMES A MȮNTH | 2 | 1597 | 10.2\% | 18.64 |
| 1-2 TIMES A WEEK. | 3 | 2586 | 16.5\% | 28.3\% |
| ALMOST EVERY DAY. | 4 | 2633 | 16.8\% | 30.04 |
| EVERY DAY. . . . . | 6 | 647 | 4.1\% | 6.5\% |
| RESERVED COOES: |  |  |  |  |
| ho TEACHER QUEX MISSING | 8 | 5842 957 | 37.24 6.14 | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Quation 213 AE
Tepe Po: 80-89
Formet: 11
F2T213AE TEACHER'S USE OF ORAL QUESTION RESPONSE
Heve etudente reipond orelty to questione on ubject metter

| RESPON8E | cooss | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RARELY | 1 | 186 | 1.2\% | 1.7\% |
| 1-2 TIMES A MONTH. | 2 | 412 | 2.6\% | 5.1\% |
| 1-2 TIMES A WEEK. | 3 | 1447 | 9.2\% | 16.4\% |
| ALMOST EVERY DAY. | 4 | 4420 | 28.2\% | 48.1* |
| EVERY DAY. ...... | 5 | 2504 | 16.0\% | 27.7\% |
| RESERVED COOES: <br> NO TEACHER QUEX <br> MISSING. | 8 | 5842 884 | 37.2\% | (M1S5) <br> (MISS) |
| TOTALS: |  | 15695 | 100.04 | 100.0\% |

## Question 213 AF

Tepe Pos; 90-90
F2T213AF TEACHER'S USE OF STUDENT-LED DISCUSSIONS
Heve otudent-ied whols-group dizeuziton:


## F2T213AG TEACHER'S USE OF CCOPERATIVE GROUPS

Heve tudent work together in cooperetive groups

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RARELY | 1 | 947 | 6.04 | 9.4\% |
| 1-2 TIMES A WONTH. | 2 | 2472 | $15.8 \%$ | 26.84 |
| 1-2 TIMES A WEEK. | 3 | 3447 | 22. O\% | $39.5 \%$ |
| ALMOST EVERY DAY. | 4 | 1694 | 10.8\% | 20.14 |
| EVERY DAY....... | 5 | 409 | 2.6\% | 4.1\% |
| RESERVED CCDES: NO TEACHER QUEX. |  | 5842 | 37.2 H | (MISS) |
| WULTIPLE RESPONSE | 6 | 4 | 0.04 | (MISS) |
| Missing. . . . . . . . | 8 | 880 | 5.6\% | (MISS) |
| TOTALS: |  | 16695 | 100.0\% | 100.0\% |

Question 213 AH
Tape Pos if ${ }^{\text {92-92 }}$
F2T213AH TEACHER'S USE OF'WRITTEN ASSIGNMENTS
Heve studente complete individuel written estignment or worksheets in clet:

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RARELY | 1 | 1335 | 8. 54 | 14.64 |
| 1-2 TIMES A MOONTH | 2 | 2055 | 13. 1\% | 21.34 |
| 1-2 TIMES A WEEK. | 3 | 3080 | 19.6\% | 33.84 |
| ALMOST EVERY DAY. | 4 | 1826 | 11.6\% | 21.34 |
| EVERY DAY. . .... | 5 | 682 | 4.3\% | 9.0\% |
| RESERVED COOES: <br> NO TEACHER QU: ${ }^{\text {X }}$ |  | 5842 | $37.2 \%$ | (MISS) |
| AULTIPLE RESPUNSE | 6 | 1 | 0.04 | (MISS) |
| missing. . . . . . . . | 8 | 074 | 5.6\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Queation 213AI

F2T213AI TEACHER'S USE OF̈ ORAL REPORTS
Heve studente give orel reporte

| RESPONSE | CODES | FREQ | PER - CENT | WGTD |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 7191 | 45.84 | 78.34 |
| NEVER/RARELY | 2 | 1392 | $8.9 \%$ | 18.2\% |
| 1-2 TIMES A WEEK. | 3 | 257 | 1.6\% | 2.3M |
| ALMOST EVERY DAY. | 4 | 70 | O.4M | 1.2M |
| EVERY DAY. | 5 | 21 | $0.1 \%$ | 0.1\% |
| RESERVED CODES: NO TEACHER QUEX MISSING | 8 | 5842 922 | $\begin{array}{r} 37.24 \\ 5.94 \end{array}$ | (M1SS) <br> (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Tope Pos is 33-93
Formet: 11

Question 2-14C
Tope Pos: 87-97
Formet: it
F2T2_14C EMPHASIS ON REPRESENTING PROBLEMS
Leerning to reprosent problism structuref in multipie weys
(e.g., grephiceliy, elgobreiceliy, numericeliy, ote.)


Tope Pus 98-98

## Question 2 14D

F2T2_14D EMPCIASIS ON INTEGRATING MATH GRANCHES
Integreting different brenches of methemetics (e.g.,
Integreting diffor intione unified fremowork


Question $2=14$
in this metheleis, how much emphets do you give to each of the following objectives?


## Question 2_14E

Tope Pos it 99-99
Format:
F2T2_:4E EMPHASIS ON MULT APPROACH TO PROB SOLVNG
Concetving end enalying ffectiveness of multiple epproeches to probiem solving

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NONE | 1 | 79 | 0.6\% | 1.2n |
| MONE. | 2 | 880 | 5.6\% | 14.54 |
| MODERATE | 3 | 2406 | 15.3\% | 42.04 |
| MAJOR. | 4 | 2426 | $15.5 \%$ | 42.4 |
| RESERVED CODES: |  | 5842 | 37.2\% | (M1SS) |
| MISSING.... | 8 | 100 | 0.6\% | (MISS) |
| LECITIMATE SKip. | 9 | 3963 | 25.34 | (MISS) |
| TOTA |  | 15695 | 100.0\% | 100.0\% |

TOTALS:


| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NONE | 1 | 290 | 1.8\% | 6.0\% |
| MINOR | 2 | 1748 | 11.1\% | $27.2 \%$ |
| MCOERATE | 3 | 2294 | 14.6\% | 21.74 |
| MAJOR...... | 4 | 1448 | 9.2\% | 26.7\% |
| RESERVED CODES: |  | 5842 | 37.24 | (MISS) |
| NO TEACHER QUEX. |  | 110 | 0.74 | (MISS) |
| MISSING. | 9 | 3963 | 25.34 | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Tope Pos i 101-101
Format: it
Question 2,14G
DAILY LIFE
F2T2_1 AG EMPHASIS ON IMPORT OF MATH IN
Showing importance of meth in doily life


F2T2_14H EMPHASIS ON SOLVING EQUATIONS
Solving equetione


Question 2 is
Tope Poi ${ }^{\text {Format }}$ 103-102
F2T2_14I EMP ON RAISING QUESTIONS/CONJECTURING
Raising questions end formulating conjectures


Question


## Question 2_i5A

Tope Pos:
Formetit
F2T2_15A TAUGHT INTEGERS
Integers


F2T2_14J EMPHASIS ON STUDENTS. INTEREST IN MATH
Increasing students interest in meth



## Question 2, 1 BC

F2T2_15C TAUGHT LINEAR EQUATIONS
Lifer Equations
TOTALS:

Tope Pos: 107-107
Format: if

Question 2-16

Have you taught or reviewed the following topics in this
Have you taught or this year?
if you have reviewed end taught en Item et now content,
mark only.

## Quastion 2-1ED

Tepe Posi 108-108
Formet:
F2T2_15D TAUCHT POLYNOMIALS
Polynomials

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES, I TAUGHT IT AS NEW |  |  |  |  |
| CONTENT.......... | 1 | 1778 | 11.3\% | 30.94 |
| YES, BUT 1 REVIEWED IT ONLY | 2 | 2217 | 14.1\% | 38.6\% |
| NOREVUT IT WAS TAUGHT | 3 | 840 | 6.0\% | 15.1\% |
|  |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 161 | 1.04 | 2. 5\% |
| NO, TOPIC IS BEYOND THE SCOPE |  |  |  |  |
| OF THIS COURSE................. | 5 | 687 | 4.4\% | 12.8\% |
| RESERYED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | $37.2 \%$ | (MISS) |
| WULTIPLE RESIPONSE | 6 | ${ }^{3}$ | 0.04 | (MISS) |
| RISSING...... | 8 | 104 | 0.7\% | (MISS) |
| LEGITIMATE Skip | 9 | 3963 | 25.3\% | (MISS) |
| TOTALS: |  | 16695 | 100.0\% | 100.0\% |

Quetion 2-15E

Format: if
F2T2_IEE TAUGHT PROPERTIES OF GEMETRIC FIGURES
Prepartias of geomatric ftguras

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES I I TAUGHT IT AS NEW |  |  |  |  |
| CONTENT.............. | 1 | 1174 | 7. 511 | 20.8\% |
| YES, EUT I REVIEWED IT ONLY | 2 | 2164 | 13.84 | 37.4\% |
| NO BUT IT WAS TAUGHT |  |  |  |  |
|  | 3 | 1611 | \{0.3\% | 26.2\% |
| NO, BU' $\ddagger$ WILL TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 221 | 1.4\% | 4.3\% |
| OF THIS COURSE. | 5 | 612 | 3.8\% | 11.7\% |
| RESERVED CODES: <br> NO TEACHER QUEX. |  | 5842 | 37.24 | (MISS) |
| MULTEAPLE RESPONSE . . . . . . . . . . . | 6 | - 2 | 0.04 | (MISS) |
| Missinc.......... | 8 | 106 | 0.7\% | (MISS) |
| LEGITIMATEX SKIP | 9 | 3963 | 25.3\% | (MiSS) |
| TOTALS: |  | 16695 | 100.0\% | 100.0\% |


| Quetion 2-186 |  | Tapa Pos: 111-111 Format: I1 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2T2_15G TAUGHT PROOFS |  |  |  |  |
| Proofi |  |  |  |  |
| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| YES, I TAUCHT IT AS NEW |  |  |  |  |
| YES, BUT I ' REVIEwED IT'ONLY... | 2 | 1345 | 8.6\% | 24.2\% |
| NO, BUT IT WAS TAUGHT PREVIOUSLY............ | 3 | 1880 | 10.1\% | 26.1\% |
| NO, BUT I WILL TEACH OR REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 125 | 0.8\% | 2.8\% |
| OF THIS COURSE................ | 5 | 1207 | 7.7\% | 24.2\% |
| RESERVED CODES: <br> NO TEACHER QUEX. . . . . . . . . . . . |  | 8842 | 37.2\% | (M15S) |
| MULTIPLE RESPONSE | 6 | 1 | $0.0 \%$ | (MISS) |
| MISSING........ | 8 | 121 | $0.8 \%$ | (MISS) |
| Legitimate skjp. | 9 | 3963 | 25.3\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Question 2 18H
Tapa Pos
Format ${ }^{112-112}$
F2T2_1 BH TAUGHT TRIGONOWETRY
Trigonomatry

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES, I TAUCHT IT AS NEW |  |  |  |  |
| CONTENT. : - | 1 | 2116 | 13.5\% | 35.94 |
| YES, BUT I REVIEWED IT ONLY... | 2 | 969 | 6.2\% | 13.9\% |
| NO BUT IT WAS TAUGHT | 3 | 327 | 2.14 | E. 1\% |
|  | 3 | 327 |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 860 | 4.2\% | 12.4\% |
| NO, TOPIC IS BEYONO THE SCOPE OF TriIS COURSE. | E | 1709 | 10.9\% | 32.8\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. . . . . . . . . . |  | 8842 | $37.2 \%$ $0.0 \%$ | (MISS) |
| MULTIPLE RESPONSE.............. | 8 | 107 | 0.0\% | (miss) |
| LEGITIMATE S ṠEIP | 9 | 3963 | 26.3\% | (miss) |
| TOTALS: |  | 15896 | 100.0\% | 100.0\% |

Question 2_15F
F2T2_15F TAUGHT COORDINATE GEOMETRY
Coordinate Geomatry

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES I TAUCHT IT AS NEW |  |  |  |  |
| CONTENT............. | 1 | 1534 | 9.8\% | 28.0\% |
| YES, BUT I REYIEWED IT ONLY | 2 | 1921 | 12.2\% | 31.8\% |
| NO BUT IT WAS TAUCHT |  |  |  |  |
| PREVIOUSLY. . . $\quad$. | 3 | 1014 | 6. 5\% | 16.7\% |
| NO, BUT I WILL TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
| YEAR........................ | 4 | 50.4 | 3.24 | 8.8\% |
| NO, TOPIC IS BEYOND THE SCOPE |  |  |  |  |
| OF THIS COURSE. | 5 | 812 | 5.2\% | 15.2\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.2\% |  |
| HULTJPLE RESPONSE | 6 |  | $0.0 \%$ | (MISS) |
| MISSING. | 8 | 103 | O.7M | (MISS) |
| LEGITIMATEX SKip. | 9 | 3963 | 26.3\% | (MISS) |
| TOTALS: |  | 15696 | 100.0m | 100.0\% |

Tope Posi ${ }^{110-110}$
Formet:

Question 2 15I
F2T2_1BI TAUGHT STATISTICS
Stattstics

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CERT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES I TAUGHT IT AS NEW |  |  |  |  |
| CONTENT...................... | 1 | 970 | 6.2N | 16. 14 |
| YES, BUT 1 REVIEWED IT ONLY | 2 | 285 | 1.8\% | 4.9\% |
| NO, BUT IT WAS TAUGHT | 3 | 738 | 4.7\% | 11.4\% |
| NO, BUT I WIif TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 880 | 6.4\% | 16.1\% |
| NO, TOPIC IS BEYOND THE SCOPE of THIS COURSE. | 8 | 2918 | 18.8\% | 52.4\% |
| RESERVED CODES: NO TEACHER QUEX |  | 5842 | 37.2\% | (MI38) |
| MULTIPLE RESPONSE | 6 | - | 0.0\% | (MIS8) |
| MISSING....... | 8 | 126 | 0.84 | (bISS) |
| LEGITIMATE SKIP. | 9 | 3963 | 25.3\% | (m13s) |
| TOTALS: |  | 16698 | 100.0\% | 100.0\% |

Question 2_15ل

Tope Pos; ${ }^{\text {114-114 }}$
Format: It
F2T2_15d TAUCHT PROBABILITY
Probebility

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WGTD PCT |
| :---: | :---: | :---: | :---: | :---: |
| YES, I TAUGHT IT AS NEW | 1 | 1063 | 6.8N | 16.6\% |
|  | 2 | 342 | 2.2\% | $5.8 \%$ |
| NO, BUT IT WAS TAUGHT PREVIOUSLY. | 3 | 776 | 4.9\% | 11.8\% |
| NO, 日UT I WILL TEACH OR REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 1051 | 6.7\% | 20.4\% |
| NO, TOPIC IS BEYOND THE SCOPE OF THIS COURSE. | 5 | 2538 | 16.2\% | 45.8\% |
| RESERVED CODES: NO TEACHER QUE |  | 8842 | 37.2\% | (MISS) |
| MISSING....... | 8 | 120 | 0.8\% | (MISS) |
| LEGITIMATE SKIP. | 9 | 3963 | 25.34 | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Quetion 2, 15K
Tope Pos it 115-115
Formet: it
F2T2_15K TAUGHT CALCULUS
Coleulu:

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTT } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES, I TAUGHT IT AS NEW | 1 | 1303 | 8.3\% | 18.4\% |
|  | 2 | 35 | 0.2\% | 0.44 |
| NO ' BUT IT WAS TAUGHT | 3 | 119 | 0.8\% | 2.94 |
|  |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  | 311 | 2.0\% | 6.5\% |
|  | 4 | 311 | $2.0 *$ | 6.6 |
| OF'THIS COURSE.................. | 5 | 4002 | 25.5\% | 71.7\% |
| RESERVED COOES: |  | 5842 | 37.2\% | (MISS) |
| NO TEACHER QUEX. | 6 | 2 | 0.04 | (MISS) |
| MISSING.......... | 8 | 118 | 0.8\% | (MISS) |
| LEGITIMATE SXXP | 9 | 3963 | 25.34 | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Question 2-16
Tepe Poc in
Formet: is
F2T2_16 WORD PROBLEM: RELATIONSHIP OF M \& MS
Your students heve been leerning how to write meth
statements expreising proportions.
A one pound beg conteina 50 percent more then
mams then green ones. Write methometicel
statement that reprasents the relotionship
botweon the tan $(t)$ and groen (g) MaM, uiting
tond geto tend for the number of ton end
green Mems
Here ere ome responses you get from tudent:

$$
\begin{aligned}
& \text { Kolly-1.5t }=0 \\
& \text { Loo }-50 t=0 \\
& \text { Pot }=5 g=t \\
& \text { Sondy }-0 \text { plut } 1 / 2 g=t
\end{aligned}
$$

Which of the studenta het representad the reletionthip bet?

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PGT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| ALL OF THEM. | 01 | 29 | 0.2\% | 0.6\% |
| KELLY...... | 02 | 233 | 1.6\% | 6.0\% |
| LEE. | 03 | 194 | 1.2\% | 4.8\% |
| -PAT. | 04 | 79 | 0.5\% | 1.6\% |
| SANDY. | 05 | 3844 | 24.54 | 8A.8\% |
| NONE OF THEM. | 06 | 137 | 0.94\% | $2.8 \%$ |
| DON'T KNOW. | 07 | 30 | 0.2\% | 0.6\% |
| RESERVED CODES: |  | 5842 | 37.2\% | (MISS) |
| MULTIPLE RESPONS | 96 | 20 | $0.1 \%$ | (MISS) |
| MISSING.... | 98 | 1324 | 8.4\% | (MISS) |
| LEGITIMATEX SXIP | 99 | 3963 | 25.3\% | (MISS) |
| TOTALS |  | 15695 | 100.04 | 100.0\% |

NOTE: Nonreiponse for thit tiem exceat: the NCES etenderd.
Due to potential nonresponse bies, users hould exercise
Dus to potentiol nonresponsebitiolo for enelysis.
quetion 2_17

Meny teechers went titudenta to understand the "whys of math, rathor then imply momorizing rulea or principles. sometimea this con be herd. For eech item below, indicete whet you think by marking one of the numeric codes.

Quetion 217A $\quad$ Fope Pos if | 118-118 |
| :--- | F2T217AA MULTIPLY Two NECATIVES YOU GET A POSITVE

When you multipiy two negetives together, you elweys get e pozitive

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | wgro PCT |
| :---: | :---: | :---: | :---: | :---: |
| EXPLAIN. | 1 | 3534 | 22.84 | 68.84 |
| REMEMSER | 2 | 1298 | 8.34 | 28.3\% |
| NOT SURE, | 3 | 78 | 0.8\% | 2.8\% |
| RESERVED CODES: |  | 5842 | 37.24 | (M3Ss) |
| NLLTJPLE RESPONS | 6 | 7 | 0.0\% | (MISS) |
| MISSING........ | 8 | 872 | 6.2\% | (MIS3) |
| LEGITIMATE SKIP | 9 | 3863 | 25.3\% | (miss) |
| TOTALS: |  | 18695 | 100.0\% | 100.04 |


| Question 217AB |  | $\begin{aligned} & \text { Tope Pos i } 119-119 \\ & \text { Formet: if } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2T217AB SLOPE OF VERTICAL LINE IS UNDEFINED |  |  |  |  |
| The slope of verticel line it undefinod |  |  |  |  |
| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTO } \\ & \text { PCT } \end{aligned}$ |
| EXPLAIN. | 1 | 4793 | 30. 8\% | 97.6\% |
| REGEMBER. | 3 | 76 | 0.6\% | 1.4 |
|  |  |  |  |  |
|  |  |  |  |  |
| NOLTIPLE RESPONSE | 6 | 804 | 0.1\% | (HISS) |
| MISSING. ${ }^{\text {M }}$ M ${ }^{\text {P }}$. | 8 | 961 | 6.1\% | (MISS) |
| LEGITIMATE ŚSiP. | 9 | 3963 | 25.3\% | (miss) |
|  |  | 15698 | 100.0\% | 100.0N |

TOTALS:

Tope Pos: ${ }^{120-120}$
Format: if

F2T217AC ANY NONZERO NUMBER TO ZERO POWER IS 1.0
Any nonzero number to the zero power is 1.0

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| EXPLAIN | 1 | 4093 | 26.1\% | $81.7 \%$ |
| REMEMBER | 2 | 735 | 4.7\% | 16.74 |
| NOT SURE | 3 | 89 | 0.6\% | 1.85 |
| RESERVED COOES: |  | 8842 | 37.24 | (MISS) |
| NULTIPLE RESPONSE | 6 | \% | 0.14 | (MISS) |
|  | 8 | 862 | 6.14 | (MISS) |
| LEGITIMATE SẊip. | 9 | 3963 | 25.3\% | (mISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Qustiton 2-17B

F2T2_17B SCIENCE CLASS LISTED IN PART II
Are ony of the cleseat you listed et the beginning of Pert II science clestes?

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \hline \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES..... | 1 | 3963 | 25.34 | 39.84 |
| NO. | 2 | 5890 | $37.8 \%$ | 60.8\% |
| RESERVED CODES: NO TEACHER QUEX |  | 6842 | 37.2\% | (MISS) |
| TOTALS: |  | 15895 | 100.0\% | 100.0\% |

Question $2=18$

In this ictence clast, how much emphasit do you give to the fallowing objectivei?

## Question 2_18A

Tapa Poti 122-122

F2T2_18A EMPHASIS ON INTEREST IN SCIENCE
Increseting itudenté intereet in ecienco

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 6 | 0.0\% | 0.24 |
| NONE. . | 2 | 191 | 1.2\% | 46.14 |
| MODERATE | 3 | 1276 | 8.14 | $36.7 \%$ |
| MANOR. | 4 | 2213 | 14.1\% | 69.0\% |
| NESE TEACHER QUEX |  | 5842 | 37.2\% | (MISS) |
|  | 8 | 277 | 1.8\% | (MISS) |
| LEGITIMATE'SKIP. | 9 | 5830 | 37.5\% | (M1SS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Question 2_18B
Tapa Pos ${ }^{123-123}$
Format: $1_{1}$
F2T2_18B EMPHASIS ON SCIENTIFIC FACTS
Learning and memorizing ecientific facti, principles, end rules

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NOHE | 1 | 66 | 0.4\% | 1.34 |
| MINOR | 2 | 1082 | 6.9\% | 30.8\% |
| MOOERATE | 3 | 1704 | 10.9世 | 48.34 |
| MAJOR. | 4 | 820 | 5. 2 H | 19.5\% |
| RESERVED CODES: |  | 5842 | 37.2W | (MISS) |
| NO TSSING...... | 8 | 231 | 1.94 | (MISS) |
| LEGITIMATE Skip. | 9 | 5890 | 37. $5 \%$ | (MISS) |
| TOTALs: |  | 15695 | 100.0\% | 100.0\% |

## Question 2_18C

Tape Pot; ${ }^{\text {124-124 }}$
F2T2 18 BC EMPHASIS ON SCIENTIFIC METHODS
Leerning scientific methodi

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 24 | 0.24 | 0.54 |
| NONE. | 2 | 560 | 3.64 | 13.8\% |
| mooterate | 3 | 1699 | 10.24 | 46.84 |
| MAJOR. | 4 | 1480 | 9.44 | 38.9\% |
| RESERVED COOES: |  | 5842 | 37.2\% | (MISS) |
| NO TEACHER Qu MISSING. | 8 | 300 | 1.84 | (MISS) |
| LECITIMATḞ'SKiP. | 8 | 5890 | 37.6 H | (MISS) |
| -OTALS: |  | 15695 | 100.0 m | 100.0\% |

Question 2180
Tape Poti ${ }^{\text {\$25-126 }}$
Format:
F2T2_18D EMPHASIS ON FURTHER STUDY IN SCIENCE
Preparing etudente for furthar etudy in icience

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WGTD PCT |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 36 | 0.2\% | 1.1\% |
| NONE. | 2 | 369 | 2.4N | 9.9\% |
| MODERATE | 3 | 1285 | 8.0\% | 35.5\% |
| MAJOR. $\cdot \cdots$ | 4 | 2000 | 12.8 | 63.4\% |
| RESERVED COOES |  | 5842 | 37.24 | (MISS) |
| NO TEACHER QUI <br> MISSING | 8 | 295 | 1.94 | (MISS) |
| Legitimate skip | 9 | 5890 | 37.54 | (MI3S) |
|  |  | 15695 | 100.0\% | 100.0\% |

## Question 2_18E

Tape Pos: 126-126
F2T2_IBE EMPHASIS OH PROBLEM SOLVNG/INQURY SKILLS
Develeping problam solving/inquiry skilis

| RESPCNSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NONE | 1 | 19 | $0.1 \%$ | 0.3\% |
| MI NOR | 2 | 247 | 1.6\% | 8.2\% |
| Mootate | 3 | 992 | 6.3* | 27.4\% |
| MAJOR... | 4 | 2414 | 15.44 | 64.1\% |
| RESERVED CODES: |  | 5842 | 37.2\% | (MISS) |
| NO TEACHER QUEX | 8 | 291 | 1.9\% | (M1SS) |
| LEGITIMATE SKiP. | 9 | 5850 | 37.6\% | (miss) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Quetion 2_18F
Tapa Poit
Format: i27-127
F2T2_18F EMPHASIS ON DEVELOPING LAB SKILLS
Developing ekilit in lab techniquas

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTO } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 199 | 1.3\% | 5.9\% |
| MINER. | 2 | 669 | $4.3 \%$ | 18.1\% |
| mCOERATE | 3 | 1500 | 9.6\% | 42.5\% |
| MAJOR... | 4 | 1297 | 8.3\% | $33.5 \%$ |
| RESERVED CODES: |  | 5342 | 37.2\% | (MISS) |
| NO TEACHER GUE | 8 | 298 | 1.9\% | (MISS) |
| LEGITIMATE SSİP. | 9 | 5890 | $37.6 \%$ | (MISS) |
| TOTALS |  | 15695 | 100.0\% | 100.0\% |

## Question 2-18G

Topa Pot if 128-128
F2T2_18G EMPHASIS ON APPLCTNS OF SCI TO ENVRNMNT
Learning about applications of acience to anvironmental
issues


Queition 2-1BH
Tape Pot if
Format:
F2TA_18H EMPH ON IMPORT OF SCIENCE IN DAILY LIFE
Showing importance of ecience in dalty life

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NONE | 1 | 44 | 0.34 | 0.84 |
| MINOR | 2 | 434 | 2.8\% | 12.1\% |
| wooterat | 3 | 1422 | 9.14 | 37.3\% |
| MAJOR. | 4 | 1766 | 11.3\% | 84 |
| RESERVED CODES: |  | 6842 | 37.2\% | (MISS) |
| NOLTEPLE RESPONSE | 6 | 1 | 0.04 | (M!SS) |
| MISSING........ | 8 | 296 | 1.94 | (MISS) |
| LEGITIMATE SKjP. | 9 | 5890 | 37.54 | (MISS) |
| TOTA |  | 15695 | 100.0\% | 100.0\% |

TOTALS:
$\qquad$
Quettion $2=1: 1$

How often do you do each of the fallowing activitien in thit ecience clasi?

Tope Posi ${ }^{130-130}$
quection 2_19A
Formet: 11
F2T2_13A HOW OFTEN HAVE BTUDENTS DO AN EXPERIMENT
Heve studente do en experiment or obearvetion individualiy or in emoll groups

| RESPOHSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RARELY | 1 | 263 | 1.74 | 7.34 |
| 1-2 TIMES A MONTK | 2 | 1000 | 6.4\% | 24.84 |
| 1-2 TIMES A WEEK. | 3 | 2334 | 14.84 | 58.7\% |
| ALMOAT EVERY DAY. | 4 | 277 | 1.84 | 7.34 |
| EVERT DAY... | 5 | 29 | 0.2\% | 0.8\% |
| RESERYED COOES: |  |  |  |  |
| NO TEACHER QUEX |  | 5842 | 37.24 | (M18S) |
| MISSING....... | 8 | 60 | 0.4* | (M135) |
| LEGITIMATE SKIp | 9 | 5890 | 37.54 | (M15S) |
| TOTALS: |  | 15595 | 100.0\% | 100.0\% |


Quention 2_19B

F2T2_19s HOW OFTEN DEMONSTRATE EAPERIMENT
Domonitroie on experiment or loed atudent: in eystemetic

| RESPOMSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PGT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RAPRLY | 1 | 346 | 2. 24 | 8.34 |
| 1-2 TIMES MONTT | 2 | 1362 | 8.6\% | 36.34 |
| 1-2 TIMES A WEEK. | 3 | 1769 | 11.2\% | 44.7\% |
| ALMOST EVERY DAY. | 4 | 400 | 2. 5\% | 9.9\% |
| EYERY DAY. | 5 | 47 | 0.3\% | 0.8\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.24 | (MISS) |
| MISSING.... | 8 | 59 | 0.4\% | (MISS) |
| LEGITIMATE SKIP | 9 | 5890 | 37.6\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Question 2.18C

F2T2_i9C HOW OFTEN REQUIRE REPORTS ON EXPERIMENTS Requiro student: to turn in written reports on experiments or obsorvetions


| COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 1 | 434 | 2.84 | 12.04 |
| 2 | 1354 | 8.64 | 36. 14 |
| 3 | 1943 | 12.4H | 47.44 |
| 4 | 145 | 0.94 | $4.0 \%$ |
| 5 | 21 | $0.1 \%$ | 0.4\% |
|  | 5842 | 37.24 | (MISS) |
| 8 | 66 | 0. 4\% | (MISS) |
| 9 | 5890 | 37.5\% | (MISS) |
|  | 15695 | 100.0\% | 100.0\% |

Tope Pos Format $^{\text {133-133 }}$
Question 2_190

F2T2_19D HOW OFTEN DISCUSS CURRENT EVENTS IN SC
Diecues current feeues end events in ecfence

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RARELY | 1 | 307 | 2.0\% | 7.94 |
| I-3 TIMES A MONTH | 2 | 1412 | 9.0\% | 35.2\% |
| 1-2 TIMES A WEEX. | 3 | 1514 | 0.4\% | 35.64 |
| ALMOST EVERY DAY | 4 | 614 | 3.9\% | 15.34 |
| EVERY DAY.... | 5 | 250 | 1.6\% | 6.14 |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.24 | (M15S) |
| MISSING.. | 8 | 66 | 0.44 | (M13S) |
| LEGITIMATE SKIP. | 8 | 5890 | $37.5 \%$ | (MISS) |
| TOTAL3: |  | ; 5695 | 100.0\% | 100.0\% |


| quetion 2 18E | Tepe Pot. 134-134 Formet: il |
| :---: | :---: |

F2T2_19E HOW OFTEN COMPUTERS USED TO COLLECT DATA
Heve etudents uee computere for dete collection end enelyeit


Queation 2_19F
Tope Po: $i_{i}^{135-136}$
Formet:
F2T2_19F HOW OFTEN COMPUTERS USED TO DEMONSTRATE
Use computari for demonstrations/stmulatione

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTO } \\ & \text { PGT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NEVER/RAFELY. | 1 | 2707 | 17.2\% | 71.24 |
| 1-2 TIMES A MONT | 2 | 943 | 6.04 | 22.74 |
| 1-2 TIMES A WEEK. | 3 | 187 | 1.2\% | 4.84 |
| ALMOST EVERY DAY. | 4 | 44 | 0.34 | 0.94 |
| EVERY DAY.... | 5 | 16 | 0.1\% | 0.44 |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QuEX. |  | 5842 | 37.2\% | (MISS) |
| MISSINC. | 8 | 66 | 0.4\% | (Miss) |
| LEGITIAMTE SKIp | 9 | 5890 | 37.5\% | (miss) |
| TOTALS: |  | $1 \pm 695$ | 100.0\% | 100.0\% |

Queition 2_196
Tape Pos
Formet: 1 136-i36
F2T2 :9G HOW OFTEN STUDENTS GIVE ORAL REPORTS
Have students give oral reports

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| REVER/RARELY | 1 | 2745 | $17.5 \%$ | 71.54 |
| 1-2 TIMES A MONTH. | 2 | 986 | 6.34 | 26.3\% |
| 1-2 TIMES A WEEK. | 3 | 142 | 0.9\% | 2.84 |
| ALMOST EYERY DAY | 4 | 10 | $0.1 \%$ | 0.3N |
| EVERY DAY... | 5 | 6 | 0.0\% | 0.1\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX |  | 5842 | 37.2\% | (M15S) |
| \#1SSING. | 8 | 66 | 0.4\% | (MISS) |
| LEGITIMATE SKIP. | 9 | 5890 | 37.6\% | (M1SS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0n |

Question 2_18H
Tape Pos in
Formet: ${ }^{\text {137-137 }}$
F2T2_19H HOW OFTEN STUDENTS DESIGN OWN PROJECTS
Have students indapondently desion end conduct their own
science projects

| TESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Naver/RARELY | 1 | 2787 | 17.84 | 72.94 |
| 1-2 TIMES A MONTH | 2 | 972 | 6.2\% | 23.5\% |
| 1-2 TIMES A WEEX | 3 | 87 | $0.6 \%$ | $2.6 \%$ |
| ALmost every day | 4 | 37 | 0.2\% | 0.7\% |
| EVERY DAY... | 5 | 14 | 0.16 | 0.3\% |
| RESERYED CODES: |  |  |  | (M1SS) |
| Nissiac. |  | 5042 | 0.24 | (MISS) |
| LEGITIMATE SK̇io. | 8 | 5890 | 37. $5 \%$ | (miss) |
| TOTALS: |  | 18695 | 100.0\% | 100.0\% |

Question 2_181

Tepe Pos if 138-138
F2T2_191 HOW OFTEN DISCUSS SCIEMCE CAREERS
Discuss cereer opportuntties in eciontificend technologicel field:


F2T2_19J HOW OFTEN DISCUSS CONTROVERSIAL TECHNLGY
Discuss controversial inventions end technotogies

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 1028 | 6.5\% | 26.84 |
| NEVER/RARELY MONTH | 2 | 1740 | 11.14 | 45.94 |
| 1-2 TIMES A WEEK. | 3 | 808 | 5.14 | 19.4\% |
| ALMOST EVERY DAY. | 4 | 214 | 1.4\% | 5.8\% |
| EVERY DAY. . . . . . . . . . . . . . . . . | 5 | 104 | 0.7\% | 2.1\% |
| RESERVED COOES: |  | E842 | 37. 2\% | (MiSS) |
| NO TEACHER QUEX. . . . . . . . . . | 8 |  | 0.4\% | (MISS) |
| MISSING. | $\mathbf{g}$ | 5890 | 37. $5 \%$ | (Miss) |
| LEGITIMATE SKJP............ |  |  |  |  |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question 2_20

Question 2_2OA
Tope Pos: 141-141
Tope Posif
F2T2_2OA TAUGHT CELL 3TRUCTURE AND FUNCTION
Coll etructure end function

| RESPONS | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES I TAUGHT IT AS NEW |  |  |  | 89.34 |
| CONTENT..... ${ }^{\text {a }}$ | 1 | 568 | 3.6\% | 27.34 |
| YES, QUT I REVIEWED IT OHLY... | 2 |  |  |  |
| NO BREVIT IT WAS TAUCHT | 3 | 103 | 0.74 | 7. C\% |
|  | 3 |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  | 16 | $0.1 \%$ | 0.8\% |
|  | 4 | 16 | 0.1\% | 0.8\% |
| Of'THIS COURSE. . . . . . . . . . . . . . . | 5 | 50 | 0.3\% | 4.84 |
| RESERVED CODES: NO TEACHER QUEX. |  | 5842 | 37.2\% | (MISS) |
| MULTIPLE RESPONSE | 6 | 1 | 0.04 | (M15S) |
| MISSINE........ | 8 | 123 | 9.8\% | (MISS) |
| Legitimate skip............. | 9 | 8709 | 56.8\% | (Miss) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Question 2 2OB

Tepe Pos: 142-142
F2T2_2OB TAUGHT GENETICS

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES I TAUCHT IT AS NEW |  |  |  |  |
|  | 1 | 538 | 3.4n | 4 S . |
| YES, BUT I REVIEWED IT ONLY... | 2 | 181 | 1.0\% |  |
| NO BUT IT WAS TAUCHT | 3 | 171 | 1.1\% | 2-.7\% |
|  | 3 | 171 | 1.1* | 2.7 N |
| NO, BUT I WILL TEACH OR |  |  |  |  |
| YEAR | 4 | 87 | 0.6\% | 14.6\% |
| NO, TOPIC IS BEYOND THE SCOPE |  |  | 0.4\% | 5.84 |
| OF THIS COURSE. . . . . . . . . . . . . . . | 5 | 60 | 0.4\% | ¢.8* |
| RESERVED CODES: <br> nO TEACHER OUEX |  | 5842 | 37.24 | (M1SS) |
|  | 6 | 5 | 0.04 | (MISS) |
| MISSING. ........ | 8 | 124 | 0.84 | (MISS) |
| Legitimate skip............. | 9 | 8709 | $55.5 \%$ | (MISS) |
|  |  | 15695 | 100.0\% | 100.0 |

Heve you teught or reviewed the following topics in thit Biology Ciess during this yeer?
If you heve reviawad end zaught on itame now content, merk only.

## Question 2_20

Top: Poo: 140-140
Formel: it
F2T2_2O TCHR DID NOT LIST BIOLOGY IN PART II
I did not list a Biology ciess et the beginning of Pert it.

Question 2_200

Tepe Pos: $144-144$
Formet:
F2T2_200 TAUGHT METAEOLISM/REGULATION OF ORGANISM
Matabolismend regulation of the orgenitm

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES I TAUGHT IT AS NEW |  |  |  |  |
| CONTENT....... | 1 | 888 | 4.4N | 65.9\% |
| YES, BUT I REVIEWED IT ONLY. | 2 | 135 | 0.9\% | 10.0\% |
| NO, RUJT IT WAS TAUGit | 3 | 85 |  |  |
| NO, BUT I wi ii ' TEACH OR | 3 | 85 | $0.4 \%$ | 4.7\% |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 77 | 0.5\% | 13.24 |
| NO, TOPIC IS BEYOND THE SCOPE |  |  |  |  |
| OF THIS COURSE. | 5 | 52 | 0.3\% | 6.2\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QJEX. |  | 5842 | $37.2 \%$ | (MISS) |
| MISSING.... | 8 | 127 | 0.8\% | (M13S) |
| LEGITIMATE SKIP | 9 | 8709 | 58.5\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Question 2_2OG

F2T2_2OG TAUCHT HMAAN EIOLOCY
Humen blology

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & { }_{P C T} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES ! TAUGHT IT AS NEW |  |  |  |  |
|  | . 1 | 580 | 3.44 | 48.1\% |
| YES, BUT I REVIEWED IT ONLY | 2 | 75 | 0.5* | 11.6\% |
| HO PRVIOUSLY WAS TAUCHT |  |  |  |  |
|  | 3 | 115 | 0.7\% | 9.2w |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 160 | 1.0\% | 15.2\% |
| OF' THIS COURSE..... | 5 | 128 | 0.8\% | 15.9\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.2\% | (MISS) |
| WULTIPLE RESPONSE | 6 | 1 | $0.0 \%$ | (MISS) |
| MISSING. ${ }_{\text {M }}$ | 8 | 125 | 0.8\% | (Miss) |
| LEGITIMATE SKIP | 9 | 8709 | E5. $5 \%$ | (M15S) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Tape Poz i $148-148$
Formet:
Question $2 \ldots 2 \mathrm{H}$
F2T2_2OH TAUGHT EVOLUTION
Evolution

| RESPONSE | CODES | FREQ | PER- | $\begin{aligned} & \text { wGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES, I TAUGHT IT AS NEW |  |  |  |  |
| CONTENT.............. | 1 | 481 | 3.1\% | 48.0\% |
| YES, BUT I REVIEWED IT ONLY. | 2 | 143 | 0.9\% | 13.6\% |
| NO, BUT IT WAS TAUCHT |  |  |  |  |
| PREVIOUSLY. ${ }^{\text {a }}$ | 3 | 187 | 1.2\% | 14.8\% |
| NO, BUT I WILL TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 09 | 0.6\% | 11.6\% |
| NO, TOPIC IS BEYOND THE SCOPE |  |  |  |  |
| OF THIS COURSE. | 5 | 106 | 0.7* | 12.0\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.24 | (M1SS) |
| MISSING. ${ }^{\text {a }}$ | 8 | 128 | $0.8 \%$ | ( MISS ) |
| LEGITIMATE SKIP | 9 | 8709 | $55.5 \%$ | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |


| Question 2 201 |  | Tape Pos, 149-149 Format: I1 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2T2_20I TAUGHT ECOLOGY |  |  |  |  |
| Ecology |  |  |  |  |
| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PGT } \end{aligned}$ |
| YES 1 TAUGHT IT AS NEW |  |  |  |  |
| YES, BUT i REViEWED i ${ }^{\text {c }}$ ONLY. | 2 | 87 | 0.6\% | 13.4\% |
| NO, BUT IT WAS TAUCHT |  |  |  |  |
|  | 3 | 157 | 1.0N | 13.2\% |
| NO, BUT I WIL TEACH OR |  |  |  |  |
| MEVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 191 | 1.2W | 18.9\% |
| OF' THIS CodinsE. . . . . . . . . . . . . . | $E$ | 107 | 0.7* | 11.8\% |
| RESERVEO COOES: |  |  |  |  |
| NO TEACHER QUEX |  | 5842 | $37.2 \%$ | (MISS) |
|  | 8 | 126 | $0.8 \%$ | (MISS) |
| LEGITIMATE SKIP | 9 | 8709 | $55.5 \%$ | (*ISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Question 2_2OF
Tape Po: 146-146
F2T2_2OF TAUGHT REPRODUCTN/DEVELOPMNT OF ORGANISM
Ruproduction and devalopment of the organiam

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES I TAUCHT IT AS NEw |  |  |  |  |
| CONtENT............. | 1 | 578 | 3.74 | 58.6\% |
| YES, BUT I REVIEWED IT ONLY | 2 | 124 | 0.8\% | 11.0\% |
| NO PREVIOUSLY WAS TAUGHT | 3 | 86 | 0.6\% | 7.8\% |
| NO, BUT I wiil $\dot{T E A C H}$ OR | 3 | 8 | 0.6 | 7.8* |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 188 | 1.2\% | 18.6\% |
| NO, TOPIC IS EEYOND THE SCOPE |  |  |  |  |
| OF THIS COURSE. | 5 | 41 | 0.3\% | 4.1\% |
| RESERJED CODES. |  |  |  |  |
| NO TEACHER QUEX |  | 5842 | 37.25 | (MISS) |
| MISSING. | 8 | 127 | 0.84 | (MISS) |
| LEGITIMATE SKIo | 9 | 8709 | 55.6\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | i00.0W |



F2T2_21A TAUCHT ATOMIC AND MOLECULAR STRUCTURE


| RESPONSE | CODES | FREQ | PER-CENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES, I TAUGHT IT AS NEW |  |  |  |  |
| CONTENT. . . ${ }^{\text {P }}$ | 1 | 709 | $4.5 \%$ | $78.0 \%$ |
| YES, BUT 1 REVIEWED IT ONLY | 2 | 122 | 0.8\% | 16.6\% |
| NO, BUT IT WAS TAUCHT |  |  |  |  |
| PREVIOUSLY . . . $\quad$ ¢ | 3 | 18 | 0.1\% | 1.4\% |
| NO, BUT \& WILL TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 18 | 0.14 | 1.4\% |
| NO, TOPIC IS GEVOND THE SCOPE |  |  |  |  |
| OF THIS COURSE. | 5 | 20 | $0.1 \%$ | 2.64 |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX |  | 5842 | $37.2 \%$ | (MISS) |
| MISSING...... | 8 | 250 | 1.6\% | (MISS) |
| LEGITIMATE SKIP | 9 | 8716 | 55.6\% | (mıSS) |
| TOTALE: |  | 15695 | 100.0\% | 100.0\% |

## Question 2_218

F2T2_2iB TAUGHT PROPERTIES AND CHANGES IN MATTER
Proparttes of and changet in matter

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| CONYENT...... | 1 | 683 | 4.4\% | 74.6\% |
| YES, BUT I REVIEWED IT ONLY | 2 | 161 | 1.0\% | 21.6\% |
| NO, BUT IT WAS TAUGHT |  |  |  |  |
| PREVIOUSLY.... | 3 | 18 | 0.14 | 1.2\% |
| NO, BUT \& WILL TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
| YEAR............................... | 4 | 9 | 0.1\% | 0.7\% |
| NO, TOPIC IS BEYOND THE SCOPE |  |  |  |  |
| OF THIS COURSE. | 5 | 15 | 0.14 | 2.0\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.24 | (M15S) |
| MULTIPLE RESPONSE | 6 |  | 0.0\% | (MISS) |
| MISSING......... | 8 | 250 | 1.64 | (M1SS) |
| LEGITIMATE SKIP. | 9 | 8716 | 55. 5\% | (MISS) |
| TOTALS: |  | 15895 | 100.0\% | 100.0\% |

Queition 2-21C
F2T2_2IC TAUGHT PERIODIC SVSTEM
Partodic afatem

| RESPONSE | cooes | FREQ | PERCENT | WETD $P C T$ |
| :---: | :---: | :---: | :---: | :---: |
| YES, I TAUCHT IT AS NEW |  |  |  |  |
| COHTENT........... | 1 | 6 E 2 | 4.2\% | 74.9\% |
| YES, BUT I REVIEWED IT ONLY | 2 | 118 | 0.84 | 15.84 |
| NO BUT IT WAS TAUCHT |  |  |  |  |
| PREVIOUSLY. | 3 | 23 | 0.14 | 2.14 |
| NO, BUT \$ WILL TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 42 | 0.3\% | 3.84 |
| NO, TOPIC IS 日EVOND THE SCOPE |  |  |  |  |
| OF THIS COURSE.. | 8 | 28 | 0.2\% | 3.84 |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.2\% | (M15S) |
| Missing......... | 8 | 263 | 1.7\% | (mys) |
| LEGITIMATE SKIP | 8 | 8716 | 55. ${ }^{\text {\% }}$ | (MISS) |
| TOTALS: |  | 15696 | 100.0\% | 100.0* |


| Question 2-21D |  | Tape Pos. 154-164 Format: il |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2T2_21D TAUGHT ENERGY RELATIONSHIPS |  |  |  |  |
| Energy reletionshipi in chemical aystems |  |  |  |  |
| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER-- } \\ & \text { CENT } \end{aligned}$ | WGTD |
| YES, 1 TAUGHT IT AS NEW |  |  |  |  |
| YES, BUT I REVIEWED IT ONLY. | 2 | 50 | $0.3 \%$ | 4.0\% |
| no, but It was taucht |  |  |  |  |
| Previousty . . . . . . . | 3 | 17 | 0.1\% | 1. 2\% |
| NO, BUT $I$ WILL TEACH OR REVIEW IT LATER THIS SCHOOL |  |  |  |  |
| YEAR.................................. | 4 | 122 | 0.84 | 13.3\% |
| NO, TOPIC IS BEYOND THE SCOPE |  |  |  |  |
| OF THIS COURSE.................. RESERVED COOES: | 5 | E5 | 0.4\% | 7.46 |
| NO TEACHER QUEX. |  | 5842 | 37.2\% | (M1SS) |
| MISSING..... | 8 | 261 | 1.7\% | (M19S) |
| LECITIMȦté SXİP。 | 9 | 0716 | 55.5\% | (miss) |
| TOTALS: |  | 16695 | 100.0* | 100.0\% |


| Question 2-21E |  | Tape Pos i ${ }^{\text {155-155 }}$ Format: 11 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2T2_21E TAUGHT REACTIONS |  |  |  |  |
| Reactions |  |  |  |  |
| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER-- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| YES, I TAUGHT IT AS NEW |  |  |  |  |
| CONTENT. | 1 | 721 | 4.6\% | 82. 2\% |
| YES, BUT I REVIEWED IT ONLY... HO BUT IT WAS TAUCHT | 2 | 63 | 0.4\% | $8.5 \%$ |
| PREVIOUSLY. . . . . . . . . | 3 | 19 | 0.1\% | 1.5\% |
| NO, BUT I WILL TEACH OR REVIEW IT LATER THIS SCHOOL |  |  |  |  |
| YEAR. . . . . . . . | 4 | 36 | 0.2\% | 3.4\% |
| NO, TOPIC IS EEYOND THE SCOPE of this course. | 5 | 34 | 0.2\% | A.4\% |
| RESERVED CODES: <br> NO TEACHER QUEX |  | 5842 | 37.2\% |  |
| MJLTIPLE RESPONSE | 6 | 5842 | 37.0\% | (MISS) |
| MISSING........ | 8 | 263 | 1.74 | (m1ss) |
| LEGITIMATE SKip | 9 | 6716 | B5.5\% | (M1SS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |


| Question 2,21F |  | Tepe Pos ; 156-iE6 Fcrmat: 11 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2T2_21F TAUGHT INORGANIC CHEMISTRY |  |  |  |  |
| Inorgantc chamtstry |  |  |  |  |
| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| YES, I TAUGHT IT AS NEW |  |  |  |  |
|  | 1 | 681 | 4.3\% | $\begin{array}{r} 78.8 \% \\ 9.6 \% \end{array}$ |
| YES, GUT I R REVIEWED IT ONLY... | 2 | 73 | 0.5* | $9.6 k$ |
| PREVI OUSLY. . . . . . . . . | 3 | 15 | 0.1\% | 1.1\% |
| NO, BUT $\ddagger$ WILL TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 47 | 0.3\% | 4.3\% |
| OF'THIS COURSE................. | 5 | 56 | 0.44 | 6.2\% |
|  |  |  |  |  |
|  |  |  |  |  |
| MLITIPLE RESPONSE | 6 | 264 | 0.0\% | (MISS) |
| MESSITIMATE ${ }^{\text {L }}$ SKjP. | 8 | 264 8716 | 85.7\% | (M15S) |
| Legitimate Skjp. | 9 | - | --0.- | -.....- |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |



F2T2＿21G TRUGHT ORGANIC CHEMISTRY
Orgenic chomietry

| RESPONSE | COOES | FREQ | PER－ CENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES 1 TAUGHT IT AS NEW |  |  |  |  |
| CONTENT．．．． | 1 | 278 | 1．8\％ | 33．44 |
| YES，BUT I REVIEWED IT ONLY． | 2 | 38 | 0．2\％ | 3．6\％ |
| NOREVIOUSLY WAS TAUGHT | 3 | 22 | 0．1\％ | 2．1\％ |
| NO，EUT I WILL TEACH OR |  |  |  |  |
| MEVIEW IT LATER THIS SCHOOL | 4 | 295 | 1．8＊ | 32．2N |
| NO，TOPİC＇is beiol | 4 | 285 | 1．8ヵ | 32．2N |
| OF THIS COURSE．．．．．．．．．．．．．．． | 5 | 244 | 1．84 | 28．7\％ |
| RESERVED COOES： <br> NO TEACHER NUEX． |  | 5842 | 37．2\％ | （MISS） |
| HISSING．．．．．．．．． | 8 | 263 | 1．7\％ | （ ${ }^{\text {a }}$（3s） |
|  | 9 | 8716 | 85．8\％ | （miss） |
| TOTALS： |  | 15698 | 100．0\％ | 100．0\％ |

## Question 221H

Tepe Pou：187－187
Formet：it

Question $2=2!ป$
F2T2＿2 IJ TAUCHT MUCLEAR CHEMISTRY
Nuclear chamintry

| RESFON8E | CODES | FREQ | $\begin{aligned} & \text { PERR- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES ${ }^{\text {I }}$ TAUCKT IT AS NEW |  |  |  |  |
| CONTENT．．．．．．．．．．．． | 1 | 270 | 1．7\％ | 32．9\％ |
| YES，BUT I REVIEWED IT ONLY．．． | 2 | 88 | 0．4\％ | 8．7\％ |
| POREVICUSLY IT WAS TAUCHT | 3 | 38 | 0．2\％ | 3．${ }^{\text {\％}}$ |
| NO，EUT I WiLi TEACH OR |  |  |  |  |
| REYIEW IT LATER THIS BCHOOL |  |  |  |  |
|  | 4 | 280 | 1．6\％ | 26．2M |
| HO，TOPIC IS gEVOHO THE SCOPE OF＇THIS COURSE． | 5 | 257 | 1．6\％ | 31．7\％ |
| RESERVED COOES： |  |  |  |  |
| HO TEACHER QUEX． |  | 8842 | 37．2\％ | （M13s） |
| MISSING．．．． | 8 | 263 | 1．7\％ | （M13S） |
| Legitimate skip． | 9 | 8716 | $55.8 \%$ | （miss） |
| TOTALS： |  | 18695 | 100．0\％ | 100．0＊ |

Tepe Pos $i_{1}^{180-1 E J}$
Formet：
辟

F2T2＿21H TAUGHT ENVIRCNMENTAL CHEMISTRY
Environmentel chomistry

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES I TAUGHT IT AS NEW |  |  |  |  |
| CONTENT．．．${ }^{\text {P }}$ | 1 | 284 | 1．84 | 34．0\％ |
| YES，日UT $\ddagger$ REVIEWED iT ONLY | 2 | 101 | 0．6\％ | $12.0 \%$ |
| NO BUT IT WAS TAUGHT paEviousty | 3 | 61 | 0．4\％ | E．8M |
| NO．BUT I WILL TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 175 | 1．14 | 18．0\％ |
| NO，TOPIC IS EEYOND THE SCOPE OF THIS COURSE．．．．．．．．．．．．．．．． | 5 | 246 | 1．8W | 30．1\％ |
| RESERVED CODES： |  |  |  |  |
| HO TEACHER OUEX． |  | 5842 | 37.2 ZH | （M1SS） |
| MULTIPLE RESPONSE | 6 | 1 | 0.04 | （MISS） |
| MISSING．．．．．．．． | 8 | 269 | 1．7\％ | （MISS） |
| LEGITIMATE SKIP | 9 | 8716 | 55．5\％ | （MISS） |
| TOTALS： |  | 18698 | 100．0\％ | 100．0\％ |

## Question 2＿21！

Tepe Pos 1 $^{\text {189－169 }}$
F2T2＿2II TAUGHT CHEMISTRY OF LIFE PROCESSES
Chemistry of life processes

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES I TALGHT IT AS NEW |  |  |  |  |
| CONTENT．．．．．．．．． | 1 | 169 | 1．1\％ | 19．3\％ |
| YES，BUT I REVIEWED IT ONLY． | 2 | 97 | 0．6\％ | 11．2\％ |
| PREVICUSLY．．．．．．．．．．．． | 3 | 99 | 0．6\％ | 10．9\％ |
| NO，BUT I WILL TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 121 | 0．8\％ | 14．5\％ |
| NO，THIS COURSE | 5 | 361 | 2．4\％ | 44．2\％ |
| RESERVED CODES： |  |  |  |  |
| NO TEACHER QUEX． |  | 5842 | 37．2\％ |  |
| MISSING． | 8 | 270 | 1．7\％ | （MISS） |
| LEGITIMATE SKIP． | 9 | 8716 | 55．5\％ | （MISS） |
| TOTALS： |  | 15695 | 100．0＊ | 100．0\％ |

Question 2222

Heve you teught or reviewed the following topics in thit
Physics ciesz during this yoer？
if you hove reviewed end teught on item os now content， merk inty．


Question 2 22A
Tepe Pos $i_{i}$
Formet：
F2T2＿22A TAUGHT FORMS AND SOURCES OF ENERGY
Forms end sources of energy

| RESPONSE | codes | FREQ | PER－ CENT | $\begin{aligned} & \text { wGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES，I TAUGHT IT AS NEW |  |  |  |  |
| CONTENT．．： | 1 | 1203 | 7．74 | 78．7\％ |
| YES，BUT I REVIEWED IT ONLY | 2 | 146 | 0．9世 | 9．2\％ |
| NO，BUT IT WAS TAUGHT PREVIOUSLY ．．．．．．．．．．． | 3 | 54 | 0．3＊ | 4．4\％ |
| NO，BUT $\downarrow$ WILi TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 81 | 0．5\％ | 5．6\％ |
| NO，TCPIC IS BEYOND THE SCOPE OF THIS COURSE． | B | 33 | 0．2\％ | 2．1\％ |
| RESERVED CODES： |  | 5842 | 37．2\％ | （MISS） |
| NO TEACHER QUEX | 8 | 225 | 1．4\％ | （miss） |
| LEGITIMATE＇sk | 9 | 8112 | $51.7 \%$ | （M1SS） |
| TOTALS： |  | 15695 | 100．0\％ | 100．0\％ |

Question 2_22B
F2T2_228 TAUCHT FORCES, TIME, MOTION Forces, time, motion

| RESPOMSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES I TAUGHT IT AS NEW |  |  |  |  |
| CONTENT. . . $\cdot$ ¢ | 1 | 1386 | $0.9 \%$ | 90.3\% |
| YES, BUT I REVIEWED it ONL. | 2 | 46 | 0.3\% | 3.5\% |
| NO BUT IT WAS TAUGHT |  |  |  |  |
| PREVIOUSLY | 3 | 26 | 0.2\% | 1.8* |
| NO, EUT I WILL TEACH OR |  |  |  |  |
| REVIEW IT LATER THIS SCHOOL |  |  |  |  |
|  | 4 | 12 | 0.14 | 0.8\% |
| NO, TOPIC IS BEYOHO THE SCOPE |  |  |  |  |
| OF THIS COURSE. | '6 | 40 | 0.3\% | 3.6\% |
| RESERVEO CODER: |  |  |  |  |
| NO TEACHER QUEX. |  | 8842 | 37.2\% | (MISS) |
| MISSINC.... | 8 | 221 | 1.4\% | (MISS) |
| LEGITIMATE SKIP | 8 | 8112 | $51.7 \%$ | (M15S) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Quetion 2_22C

## Tape Pos : 163-163 Format: it

## Quetion 2_22E

F2T2_22E TAUGHT SOUNO ANO VIBRATIONS
Sound and vibrations

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { wGTO } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES, $\ddagger$ TAUGMT IT AS NEW |  |  |  |  |
| CONTENT - | 1 | 886 | 5.6M | 69.7\% |
| YES, BUT I REVIEWED IT ONLY. | 2 | 51 | 0.3\% | 3.0\% |
| NO PREVIOUSLY WAS TAUGHT |  |  |  |  |
| PREVIOUSLY. | 3 | 51 | 0.3W | 2.8\% |
| NO, BUT I WILL TEACH OR |  |  |  |  |
| REVIEV IT LATER THIS SCHOOL |  | 394 |  |  |
|  | 4 | 384 | 2.5\% | 25.8\% |
| NO ' THIS COURSE |  |  |  |  |
| OF THIS COURSE | 5 | 144 | 0.9\% | 8.7\% |
| RESERVEO COOES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.24 | (M155) |
| MISSING..... | 8 | 215 | 1.4\% | (M1Ss) |
| LEGITIMATE SKIP. | 9 | 8112 | 51.7\% | (M1SS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Tape Pos i $166-166$
Format:

Question 2_22F
Tape Pos: 167-167
Format: it
F2T2_22F TAUGHY LIGHT
Light

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES 1 TAUGHT IT AS NEW |  |  |  |  |
|  | , | 811 | 5.2\% | 64.1\% |
| YES. GUT I REVIEWED IT ONLY | 2 | 34 | 0.2\% | 2.6\% |
| NO BUT IT WAS TAUGHT |  |  |  |  |
| PREVIOUSLY. | 3 | 40 | 0.3\% | $2.8 \%$ |
| NO, BUT I WILL TEACH OR |  |  |  |  |
| YEAR | 4 | 526 | 3.4\% | 34.2\% |
|  | 4 |  |  | 34.2\% |
| OF THIS COURSE. | 5 | 106 | 0.74 | 6.64 |
| RESERVED COOES: |  |  |  |  |
| HO TEACHER QUEX. |  | 5842 | $37.2 \%$ | (MISS) |
| MISSING.... | 0 | 224 | 1.4\% | (MISS) |
| LECITIMATE SKIP | 9 | 8112 | $51.7 \%$ | (M1SS) |
| rotals: |  | 15695 | 100.0\% | 100.0\% |

Tepe Pos ${ }^{168-16 B}$
Format:


F2T2_22H TAUCHT SOLIDS/FLUIDB/GAEEB
Solids/fluids/eeses

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| yes it taucht it as ney |  |  |  |  |
| COHTENT ${ }^{\text {CeS }}$ | 2 | 735 165 | 4.7\% | 47.8\% |
| NO, BUT IT WAS TAUGHT |  |  |  |  |
| PREVIoustry | 3 | 280 | 1.7\% | 1\% |
| NO, BUT WILL TEACH OR |  |  |  |  |
| YEAR..... | 4 | 155 | 1.0\% | 12.7* |
| NO, TOP IC is bevond the scope |  |  |  |  |
| OF THIS COURSE. . . . . . . . . . . . . | 5 | 215 | 1.44 | 9.84 |
| RESERVEDCOOES: |  | E842 | 37.2M | (M183) |
| missinc. | 8 | 221 | 1. 414 | (M1s5) |
| Lecitimitee sxip............... | 9 | 8112 | 61.7\% | (miss) |
| totals |  | 15695 | 100.0\% | 100.0 |

Question

## _ 23

Question 2_23
F2T2_23 AVAILABILITY OF FACILITIES (LAE EQUIP)


$$
\begin{array}{lrrrr}
\text { RESPONSE } & & \text { CODES } & \text { FREQ } & \text { PER- } \\
\text { CENT } & \text { PGTT } \\
\text { PCT }
\end{array}
$$



Tope Poz
Format: ${ }^{11}{ }^{171-171}$

## F2T2_24 DESCRIPTION OF SCIENCE EQUIPMENT

Which of the following best describes the science equipment provided by the ichool to students in thit cience ciess?

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 HAVE LITTLE OR NO EQU3PMENT |  |  |  |  |
|  | 1 | 322 | 2,1\% | 10.8m |
| EACH STUDENT EQUIPMENT... | 2 | 192 | 1.2W | E.3\% |
| Two Students usualiy share |  |  |  |  |
|  | 3 | 1388 | 8.8\% | 22.8\% |
| GROUPS OF 3 OR MORE STUDENTS | 4 | 1530 | 9.8\% | 41.14 |
| USUALLY SHARE ESUIPMENT |  |  |  |  |
| no teacher quex. . . . . . . . . . . |  | 5842 | 37. ${ }^{\text {\% }}$ | (Miss) |
| WITIPLE RESPONS | ${ }_{8}^{6}$ | 518 | c. ${ }^{\text {c. }}$ 3\% | (MISS) |
| MISSITIMGATE | 9 | 8890 | 37.5\% | (miss) |
| TOTALS: |  | 15695 | 100.0W | 100.0\% |

## Queition $2=25$

Tape Por: 172-172
F2T2_25 CONDITION OF SCIENCE EQUIPMENT
In generet, is the condition of the sefence equipment you

| RESPONS | CODES | FREQ | PER- CENT | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 HAVE NONE | 1 | 80 | 0.5\% | 3.74 |
| POOR. | 2 | 364 | 2.34 | 12.46 |
| FAlR. | 3 | 1473 | 8.4\% | 42.0\% |
| EXCELIENT | 5 | 484 | 3.1\% | 11.7\% |
| KESERVED CODES: |  | 6842 | 37. 2 m | (M15S) |
| NO TEACHER RESPONSE | 6 | 15 | 0.14 | (Miss) |
| MISSING. | 8 | 614 | 3.3\% | (M1ss) |
| Legitimate skip. | 8 | 88.80 | 37.6\% | (M135) |
| totals |  | 16685 | 100.0\% | 100.0\% |

## Question 2_26

TEpe Pot: 173-173
F2T2_28 AVAILABILITY OF CONEUNABLE BUPPLIES
The avetlebility of coneumeble upplies fchemicele,
epecimens, toet tubeo, etc.) for this science ciasis ie:


## Quettion 3_1

How much control do you feel you heve IN YOUR CLASSROOM over eech of the folfowing aras of your planning and teaching? (Anowers ere reted on icalg of 1 to 6 , where 1 $x$ No control, ind $6=$ Complete control.)
Ex---ntion 3_1ATape Pos in 174-175
FormatiSelecting textbooks end other instructional meteriels

| RESPONSE | CODES | FqEQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { wGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| O CONTROL. . . . . . . . . . . . . . . . . | 01 | 816 | 3.98 | 7. 2\% |
| CONTROL. | 02 | 749 | 4.8\% | 7.74 |
|  | 03 | 984 | 6.3\% | 11 \% |
|  | 04 | 1587 | 10.2\% | 17. |
|  | O6 | ¢ 168 | 20.2\% | 32. |
| COMPLETE CONTROL | 06 | 2603 | 16.6\% | 24. 46 |
|  |  |  |  |  |
| NO TEACHER C'IEX |  | 5842 | 37.2\% | (MISS) |
| MISSING.... | 98 | 136 | 0.9\% | (miss) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |


| Question 3_18 |  | Tape Pos in 176-177 Formatil 12 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2T3_18 TCIIR'S INFLNCE SELECTING CONTENT, TOPICS |  |  |  |  |
| Salecting content, topics, end skills to be tought |  |  |  |  |
| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| NO CONTROL. . . . . . . . . . . . . . . . . . . . | 01 02 | 626 | $3.4 \%$ $4.2 \%$ | 6.8\% |
|  | 03 | 849 | 6.4\% | 9.4\% |
|  | 04 | 1419 | 9.0\% | 16.2\% |
|  | 05 | 3152 | 20.0\% | $31.6 \%$ |
| COMPLETE CONTROL................. $06 \quad 3136$ 20.0\% 30.7\% |  |  |  |  |
|  |  |  |  |  |
| NO TEACHER quex............. <br> MISSING. | 88 | -134 | 0.8\% | (M13s) |
| TOTALS: |  | 16695 | 100.0\% | 100.0\% |

## Queition 3_1C

Tope Fos; 178 -170
F2T3_1C TCHR'S INFLMCE SELECTMG TEACHING TECHNQS
selecting teaching techntques


F2T3_10 TCHR'S INFLNCE IN DIBCIPLINING STUOENTS Dfecipifing studente

| RESPON8E | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NO CONTROL | 01 | 66 | 0.4\% | 0.9\% |
| NO CONTROL | 02 | 277 | 1.84 | $2.9 \%$ |
|  | 03 | 768 | 4.9\% | 8.1\% |
|  | 04 | 1635 | 10.4\% | 17.4\% |
|  | 05 | 3093 | 19.7\% | 32.3\% |
| COMPLETE CONTROL | G6 | 3874 | 24.7\% | 38.4\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.24 | (MISS) |
| MULTIPLE RESPONSE | 96 | 137 | 0.0\% | (MISS) |
| Missing. ...... | 98 | 137 | 0.9\% | (\%1SS) |
| TOTALS: |  | 15685 | 100.0\% | 100.0\% |

Question 3_1E
Tope Posit
Formet:
182-183
F2T3_IE TCHR'S INFLNCE TO SET AWONT OF HOMEWORK
Determining enount of homework

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { wGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NO CONTROL | 01 | 18 | 0.1\% | 0.34 |
|  | 02 | 71 | 0.8\% | 0.74 |
|  | 03 | 166 | 1.1\% | 1. 2\% |
|  | 04 | 478 | 3.0\% | 5.0\% |
|  | 05 | 2080 | 13.3\% | 21.34 |
| COMPLETE CONTROL | 06 | 6910 | 44.0\% | $71.6 \%$ |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.2\% | (MISS) |
| Missing...... | 98 | 130 | 0.84 | (MIES) |
| TOTALS: |  | 18895 | 100.0\% | 100.0\% |

## Question 3_2

On the scele below, indicete the extent to which you agree or disegres with eseh of the following stetements.

## Quetion 3_2A

Tope Pos; 184-184
F2T3_2A CAN GET THROUGH TO MOST DIFFICULT BTUDNT
If I try reeliy herd, i cen get through oven to the most
difficult or unmotiveted etudents

| RESPON8E | cooss | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 8 TRONGLY DIBAGREE | 1 | 634 | 4.0\% | 7.04 |
| DISAGREE......... | 2 | 3491 | 22.2\% | $41.3 \%$ |
| AGREE. ${ }^{\text {a }}$ | 3 | 3820 | 25.04 | 41.8\% |
| StRONGLY AGREE. | 4 | 962 | 6.1\% | 10.0\% |
| RESERVED CODFE: <br> MO TEACHER QUEX |  | 8842 | 37.2W | (M188) |
| WULTIPLE RESPON | 6 |  | $0.0 \%$ | (M18S) |
| M18simG........ | - | 446 | E.4\% | (MISS) |
| TOT/LE: |  | 18898 | 100.0\% | 100.0\% |

Queition 32
Tape Pos i
Formet:
185-185
F2T3_2B TCHR RESPONSELE TO KEEP STU FROM DROPPNG
Ifoel thet it's pert of my responsibility to keap students from dropping out of echool


F2T3_2C CHANGE APPROACH IF STUS NOT DOING VELL
14 soma studente in my close ore not doing well, lioel
thet 1 should chenge my epproech to the subject


| Queation 3-2D | $\begin{aligned} & \text { Tepe Pos is } \\ & \text { Formet: }{ }^{187-187} \end{aligned}$ |
| :---: | :---: |

F2T3_2D DIFFERENT METHODS CAN AFFECT ACHIEVEMENT
Sy trying different teeching method, I cen significently


Quostion 3_2E
Tepe Poz; 188-188
F2T3_2E I CAN DO LITTLE TO ENSURE HIGH ACHIEVINHT
Ther iterealiy very jitt le l con ao to ensure that most of my etudente echiove at a high loval

Qunetion 3_2F

Tepe Pos. 189-189
Tormet: it
F2T3 $2 F$ TCHR MAKING A DIFFERENCE IN STUS LIVES
amear
tudents in lammaking diffarence in the livei of my

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE. | 1 | 46 | 0.3\% | 0.8M |
| DISAGREE......... | 2 | 736 | 4.7\% | 9.34 |
| AGREE. | 3 | 8965 | 37.9\% | 66.0\% |
| STROHĠLY ÁGREE | 4 | 2187 | 13.9\% | 24.2\$ |
| RESEFIVED CODES: NO TEACHER QUE MISSING | 8 | $\begin{array}{r} 8842 \\ 930 \end{array}$ | $\begin{array}{r} 37.2 \% \\ 8.9 \% \end{array}$ | $\begin{aligned} & \text { (MISS) } \\ & \text { (MISS) } \end{aligned}$ |
| TOTALS: |  | 18695 | 100.0\% | 100.0\% |

Quest ion 3_3
ndicete the importence you give to ench of the following n iotting gradei for etudont in your clatiot (axcluding pecial educetton atudental.

Question 3_3A
Tepe Pot 190-190

2T3_3A IMP OF RELATIVE ACHIEVEMENT IN GRADING
Achievement reletive to tha ratet of the ctest


Quastion 3B
Tope Pos ; i91-191
Format: I1
F2T3_3B IMP OF LEVEL OF ACHIEVEMENT IN GRADING
Abiolute leval of echiovament


F2T3_3C IMP OF INDIVIDUAL IMPROVEMENT IN GRADING
individuel improvicuent or progrisa over pest performance

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 803 | 5.1\% | 8.2\% |
| NOT IMPORTANT | 2 | 4677 | 29.84 | 50.9\% |
| VERY IMPORTANT.... | 3 | 3421 | 21.8 m | 40.9* |
| RESERVED CODES: <br> no teacher quex |  | 5842 | 37.2\% | (MISS) |
| MISSING. . . . . . . | 8 | 852 | 6.1N | (MISS) |
| OT |  | 16685 | 100.0\% | 100.0\% |

## Quettion 3 30

Top: Por: 193-193
Formet: 11
F2T3_3D IMPORTANCE OF EFFORT IN GRADING
Effort


F2T3_3E IMP OF CLASS PARTICIPATION IN GRADINE
Clest perticipation

| RESPOHSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NOT IMPORT | 1 | 87\% | 6.5\% | 8.0\% |
| SOMEWHAT IMPORT'ANT | 2 | 5359 | 34.14 | 53.8\% |
| VEAY IMPORTANT. . . | 3 | 2711 | 17.3\% | 31.2\% |
| RESERVED CODES: |  | 8842 | 37.2\% | (MISS) |
| NO TEACHER QUE | 8 | 912 | 5.8\% | (MISS) |
| TOTALS: |  | 18698 | 100.0\% | 100.0\% |


| Quention 3_3F | Tape Pois 195-196 Formet: 11 |
| :---: | :---: |

F2T3 3F IMPORTANCE OF COMPLETNG HMEWRK IN GRADNG
Completing homework esignment

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \hline \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NOT IMPORTANT | 1 | 227 | 1.44 | 2.3\% |
| SOMEWHAT IMPORTANT | 2 | 3283 | 20.9\% | 34.9\% |
| VERY IMPORTANT..... | 3 | 5435 | 34.6\% | 62.8\% |
| RESERVED CODES: NO TEACHER QUEX <br> MiseiNG | 8 | 5842 | $\begin{array}{r} 37.2 \% \\ 5.8 \% \end{array}$ | (MISS) |
| TOTALS: |  | 16695 | 100.0\% | 100.0\% |

Question 3_36
Tope Poi is 196-196
Formet: is
F2T3_3G IMP OF CONSISTENT ATTENDANCE IN GRADING
Constitantiy attending cless

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NOT IMPORTANT | 1 | 876 | 5.6\% | 8.8\% |
| SGMEWHMT IMPORTANT. | 2 | 2641 | 16.84 | $29.6 \%$ |
| VERY IMPORTANT... | 3 | 5392 | 34.4\% | $61.9 \%$ |
| RESERVED CCOES: |  | 6842 | 37.2\% | (MISS) |
|  | 8 | 944 | 6.04 | (MISS) |
| TOTALS |  | 18695 | 100.0\% | 100.0\% |

## Quetion 3

Tape Pos, 197-197
F2T3_4 FREQUENCY OF DEPARTMENT STAFF MEETINGS
How often does your department/aubject oree hold steff How often
meatinge

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WGTD |
| :---: | :---: | :---: | :---: | :---: |
| NEVER. | 1 | 565 | 3.6\% | 6.3\% |
| 1-3 TIMES PER TERM, | 2 | 4861 | 31.0\% | $51.5 \%$ |
| 1-3 TIMES PER MONTH | 3 | 3110 | 19.84 | $36.7 \%$ |
| ONCE A WEEK..... | 4 | 370 | 2.4N | 4.8\% |
| 2-3 TIMES PER WEEK | 5 | 92 | 0.6\% | O.9n |
| RESERVED CODES: no TEACHER QUEX. | 8 | $\begin{array}{r} 5842 \\ 855 \end{array}$ | $\begin{gathered} 37.2 \% \\ 5.4 \% \end{gathered}$ | (MISS) (MISS) |
| TOTALS: |  | 15696 | 100.0* | 100.0\% |

Question 3_

To whet extent do you egree thet exch of the following tiatuments describes ither characteristic or en enforced policy of your department or subject areaf

Question 3_5A
Tope Pos i 198-198
Formet:
F2T3_5A ENCOURAGED TO EXPERIMENT WITH TEACHING
In this depertment I emencoureged to experiment with toeching

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STFOMGLY DISAGREE. | 1 | 120 | 0.84 | 1. $6 \%$ |
| DISAGREE.......... | 2 | 1162 | 7.44 | 14.14 |
| AGREE. | 3 | 5129 | 32.74 | E5.6\% |
| STRONGLY AGREE | 4 | 2498 | $15.9 \%$ | 28.84 |
| RESERVED CODES: <br> NO TEACHER QUEX |  | 5842 | 37.2\% | (MISS) |
| Missinc....... | 8 | 944 | 6.0\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |



F2T3_5B HAVE AUTONOMY IN CURRICULUM AND COURSES
There is : wide deqree of individuel eutonomy in curriculum


## Question

3_5C
Tope Pos i 200-200
F2T3_5C FAMILIAR W/CONTENT TAUGHT BY OTMER TCHRS
I em encoureged to be femilier with the contents end pecific gonls of the courset teught by other teechert in my depertmont

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE | 1 | 386 | 2. $5 \%$ | 4. $7 \times$ |
| disagree.. | 2 | 2055 | $13.1 \%$ | 23.24 |
| ACREE... | 3 | 5014 | 31.9* | 65.3\% |
| STRONGLY AGREE. | 4 | 1411 | 9.0\% | 16.94 |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. | 0 | 5842 987 | $37.2 \%$ $6.3 \%$ | (MISS) |
| TOTALS: |  | 18696 | 100.0\% | 100.0\% |

Quertion 3 ED

Tepe Po: 201-201
F2T3_ED COORDINATE COURSE CONTENT W/DEPT TEACHRS
1 em encoureged to coordinate the content of my tourses with teechert in my depertment

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE | 1 | 370 | 2.4\% | 4.2\% |
| DISAGREE......... | 2 | 1672 | 10.7\% | 18.6\% |
| agree | 3 | 4876 | $31.1 \%$ | 56.0\% |
| StRONGLY AGREE, | 4 | 1966 | 12.8\% | 21.24 |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX MISSING. | 8 | $\begin{array}{r} 5842 \\ 989 \end{array}$ | $\begin{array}{r} 37.2 \% \\ 6.2 \% \end{array}$ | (MISS) |
| TOTALS: |  | 15898 | 100.0\% | 100.0\% |

## Question 3_6E

Tope Pos $i_{1}$ 202-202
Formet:
F2T3_EE FACULTY APPROVL NEEDED FOR COURSE CHANGE
Feculty consultation or epprovel is needed for chenges in
courso objectivas or contents

Question 3_5F

Tepe Pos 203-203
F2T3_GF COORDINATE CONTENT W/TCHRS OUTSIDE DEPT
1 em encoureged to coordinete the content of my course with teechers outside my depertment

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE. | 1 | 1596 | 10.24 | $17.3 \%$ |
| DISAGREE.. | 2 | 4227 | $26.9 \%$ | 45.14 |
| AGPEE. . | 3 | 2699 | 17.2\% | $32.9 \%$ |
| STRONGLY AGREE | 4 | 346 | 2.2\% | 4.7\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX |  | 5842 | 37.2\% | (M1SS) |
| MULYIPLE RESPON | 6 | 87 | 0.1\% | (MISS) |
| MISSINC.... | 8 | 977 | 6.2\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |


| Question 3_EG |  |
| :---: | :---: |
| Question 3-0. | Format: if |

F2T3_EG DEPT COMMITTED TO AP AND HONORS COURSES
There is estrong commitment to AP and Honors courses in my depertment/iubject eree

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE. | 1 | 668 | 4.3\% | 9.1\% |
| disagree. | 2 | 1705 | 10.9\% | 18.9\% |
| AGREE. | 3 | 3658 | $23.3 \%$ | 41.3\% |
| STRONGLY AGREE | 4 | 2867 | 18.3\% | 29.6\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX MISSING | 8 | 6842 956 | 37.2\% |  |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question 3_EH

Tope Pos i 205-205
Formet: it
F2T3_EH SECTIONS SEPARATED BY ACHIEVEDENT LEVEL
Sections of coutset in my depertment are differentioted ccording to student' ecedemic echievement levgl

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE. | 1 | 586 | 3.84 | 6.7\% |
| DISAGREE.. | 2 | 1418 | 9.04 | 17.8 \% |
| AGREE. ${ }^{\text {c }}$ | 3 | 4514 | 20.8\% | 48.6\% |
| STRONGLY AGREE | 4 | 2342 | 14.9\% | 26.84 |
| RESERVED COOES: NO TEACHER QUE |  | 5842 | 37.2\% | (MISS) |
| $\begin{aligned} & \text { NO TEACHER QUE } \\ & \text { MISSING...... } \end{aligned}$ | 8 | 882 | 6.3\% | (M15S) |
| TOTALS: |  | 15885 | 10¢.0\% | 100.0\% |

## Queition 3_5

Fope Pos: 206-206
F2T3_61 DEPT OFFERS SUPPORT FOR LOW ACMIEVERS
My department offer epecial support for lowechioving Mudents

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE. | 1 | 584 | 3.5\% | 6.7\% |
| SISAGREE........... | 2 | 2133 | 13.6\% | 24.4\% |
| AGREE.. | 3 | 4691 | 29.8\% | 49.84 |
| STRONGL̇ ${ }^{\text {S }}$ AREE | 4 | 1808 | 9.6\% | 19.0\% |
| RESERVED CODES: |  | 5842 | 37.24 | (MISS) |
| NOUTIPLE RESPO | 6 | 1 | 0.0\% | (MISS) |
| MISSING....... | 0 | 950 | 6.1\% | (MISS) |
| TOTALS: |  | 18695 | 100.0\% | 100.0\% |

## Question 3_6J

Tepe Pos i 207-207
Format: if
F2T3_5J ROUTINE DEPT DUTIES INTERFERE W/TEACHIFG
Routine departmental duties and peperwork interfare with my job of teaching


## Question 3_5K

Tape Pos 208-208
F2T3_5K TEACHRS IN DEPT ARE CONTINUALLY LEARNIHG
Teachera in this department ere continuelly leerning and
sooxing now ideas


## Queition 3_61

Tape Pos i ${ }^{209-209}$
Format: $1{ }^{209}$
F2T3 5L TCHRS IN DEPT SHARE BELIEF ABOUT MISSION
Host of the tafchora in my department chare my beliefs end values about the central miasion of the school


Question 3_Em
Tape Pos 210-210
Format: it
F2T3_6M GREAT DEAL COOPERATVE EFFORT AWONG STAFF
Thare is areat daal of cooperative affort among my dopertment sombers


## Question 3_6N

Tape Pos, 211-211

F2T3_EN GOALS AND PRIORITIES ARE CLEAR IN DEPT
Goals end priorities for this department are clear


## Question 3_6

To whet extent do you agrea thet ench of the following
tatementi describes characteristic of your dopertmont chatemonts describes a characteristic of your deper




## Quapition 3－6B

Tepe Posi 214－214
Formet：if
F2T3＿6B DEPT CHAIR CARRIES OUT PLANS
「he depertment chetr sots priortitot，moket plent，end seat

| RESPONSE | CODES | FREQ | PER－ CENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE | 1 | 323 | 2．${ }^{\text {\％}}$ | 4．8\％ |
| DISAGREE．．．．．．．．． | 2 | 1772 | $11.3 \%$ | 28.44 |
| AGREE． | 3 | 3258 | 20.84 | 47．0\％ |
| STRONĠY゙Y AGRĖE | 4 | 1150 | 7．3世 | 19．7\％ |
| RESERVED CODES： |  | 5842 | 37．24 | （MISS） |
| NO TEACHER QUEX MISSING |  | 1274 | 8．14 | （MISS） |
|  | 9 | 2076 | 13．24 | （MISS） |
| TOTALs： |  | 15695 | 100．0\％ | 100．0\％ |

Question 3－6C
Tope Pos ；215－215
Fopmet：
F2T3＿6C DEPT CHAIR TELLS STAFF WHAT＇S EXPECTED
The depertment chair lets eteff mombers know whet is
expectad of them

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER~ } \\ & \text { CENT } \end{aligned}$ | WGTD $\mathrm{PCT}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE． | 1 | 281 | 1．84 | 3．8\％ |
| disAGREE．．．．．．．．． | 2 | 1425 | 9．1\％ | 24．3\％ |
| AGREE．．． | 3 | 3621 | 23．1\％ | $51.4 \%$ |
|  | 4 | 1172 | 7． $5 \%$ | 20．5\％ |
| RESERVED CODES： |  | 5842 | 37．2k | （MISS） |
| MO TEACHER Q | 8 | 1278 | 8.14 | （M1SS） |
|  | 9 | 2076 | 13．2\％ | （MISS） |
| TOTALS： |  | 15695 | 100．0\％ | 100．0\％ |

Question 3－6D
Tepe Pos： 216 －216
Formet：it
F2T3＿6L DEPT CHAIR CONSULTS STAFF BEFOR DECISION
The depertment cheir usueliy censults with steff members before helshe mokes dectitions thet ffect ut

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY OISAGREE | 1 | 264 | 1．7世 | 3．44 |
| DISAGREE．．．．．．．．． | 2 | 793 | 5．14 | 13．34 |
| AGREE．．．．． | 3 | 3446 | $22.0 \%$ | 52．9\％ |
| STRONGLY AGREE | 4 | 1990 | 12．7\％ | $30.6 \%$ |
| RESERVED CODES： |  | 5842 | 37．2\％ | （M1SS） |
|  | 8 | 1284 | 6.24 | （miss） |
| LEGITIMATE ${ }^{\text {S }}$ SiPP． | 9 | 2076 | 13．2\％ | （MISS） |
| TOTALS： |  | 15695 | 100．0\％ | 100．0\％ |

## Question．3＿6E

Tape Pos：217－217
F2T3＿6E DEPT CHAIR ACTIVE IH OBTAINING RESOURCES
Tho depertment chetr tekes en ective roie in obteining
retourcet for the depertment

| RESPONSE | CODES | FREQ | PER－ CENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE | 1 | 279 | 1.84 | 3．84 |
| DISAGREE．．．．．．．．． | 2 | 997 | 6．44 | 14．84 |
| AGREE．${ }^{\text {P }}$ ． | 3 | 3262 | 20．84 | $50.3 \%$ |
| STRONGLY AGREE． | 4 | $19 \mathrm{G9}$ | 12．5\％ | 31．0\％ |
| RESERVED COOES： |  | 5842 | 37．2\％ | （MISS） |
| MULTIPLE RESPONSE | 6 | 1 | 0．0\％ | （MISS） |
| MISSING．．．．．．．． | 8 | 1279 | 8．1m | （MISS） |
| Legitimaté Ṥip | 9 | 2076 | 13.24 | （MISS） |
| TOTALS： |  | 15696 | 100．0\％ | 100．0\％ |



## Que：tion 3－7

To whet extent do you eqree thet eech of the failowing
totements describes charmeteristic or enforced polify of your school or achool edministritor？


TOTALS：

Tepe Poz：220－220


F2T3＿7B GGREEMENT AMONG FACULTY ABOUT MISSION
There t broed eprement emong the entire echool faculty －bout the centrol mizetion of the school

| RESPONSE | CODES | FREQ | PER－ CENT | WGTD PCT |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE | 1 | 289 | 1．84 | 4．14 |
| DISAGREE．． | 2 | 1925 | 12．34 | 22．7\％ |
| AGREE．${ }^{\text {a }}$－ | 3 | 5336 | 34．0\％ | 63.34 |
| STRONGLY AGREE． | 4 | 891 | E．74 | 9．8\％ |
| RESERVED CODES： |  | $5 \mathrm{B42}$ | 37．2\％ | （MISS） |
| NO TEACHER QUEX MISSING. | 8 | 1412 | 9．0\％ | （MISS） |
| TOTALS： |  | 15695 | 100．04 | 100．0\％ |


\section*{| 2 |
| :--- |
| $\mathbf{F}$ |}

Que
The
wen

STRO
AGREE．．．．．．．．．．．．．．．．．．．
TRONGLY ACREE．
NO TEACHER QUEX．
MISSING．．．．．．．．．．．
TOTALS：
Tope Pos：221－221
Formet：it
2T3＿7C ADMINSTRTR COMMUNCATS KIND OF SCH WANTED
The echool edministrator knows whet kind of school helshe wents end hes commuticated it to the steff

| RESPONSE | CODES | FREQ | PER－ CENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE | 1 | 462 | 2．94 | 4．44 |
| DISAGREE．．．．．．．．． | 2 | 1652 | $10.5{ }^{4}$ | 20.14 |
| AGREE．．． | 3 | 4846 | 30．94 | 57．0\％ |
| STRONGIY ACREE． | 4 | 1503 | 9．6\％ | 18．54 |
| RESERVED CODES： |  | 5842 | 37.24 | （M153） |
| MISSING．．．．．．． | 8 | 1390 | 8．9\％ | （MISS） |
| TOTALS： |  | 18695 | 100．0\％ | 100．0\％ |

Question 3_7D
Tepe Pos, 222-222
F2T3 7D ADMINSTRTR DEALS W/ OUTSDE PRESSURE WELL
The sthool administretor deels effectively with pressures from outsidi the achool (perentg. chool boerd, budgetery) thet might otherwiso effect my toeching

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONG'Y DISAGREE | 1 | 537 | 3.4\% | 5. 4\% |
| DISAGREE. ........ | 2 | 1696 | 10.8\% | 19.34 |
| AGREE. | 3 | 8166 | 32.9* | 68.2\% |
| STRCNGLY AGREE, | 4 | 1485 | 9.3\% | 17.1\% |
| RESERVED CODES: |  | 5842 | 37.2\% | (m1ss) |
| HOLTIPLE QESPON | 6 | 1 | 0.0\% | (MISS) |
| MISSING........ | 8 | 998 | 6.4\% | (MISS) |
| TOTALS: |  | 18695 | 100.0\% | 100.0\% |

Queition 3_7E

Tape Pos; 223-223
Queition 3_7E
Formet: i 1
F2T3_7E ADMINSTRTR KNOWS PRBLMS FACED BY STAFF
The shool edmintetretor knows the problems feced by the stoff

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE | 1 | 507 | 3.24 | 5.74 |
| disagree. ...... | 2 | 1968 | 12.6\% | 20.9\% |
| AGREE. | 3 | 5239 | 33.4\% | 58.8\% |
| STRONGLY AGREE. | 4 | 1141 | 7.3\% | 14.94 |
| RESERVED CODES: |  | 5842 | 37.2W | (M15S) |
| MISSINC....... | 8 | 998 | 6.44 | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question 3_7F

Tepe Poz in 224-224
Formet: it
F2T3_7F NECESSARY MATERIALS READILY AVAILABLE
Necessery meteriels (e.g. textbooks, supplites copy fit mechine) ere reedily oviliable noseded by the toff

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISAGREE | 1 | 395 | 2.54 | 4.44 |
| DISAGREE......... | 2 | 1627 | 10.44 | 19.2* |
| AGREE.. | 3 | 5122 | 32.64 | 58.1\% |
| STRONGLY'AGREE | 4 | 1759 | 11.2\% | 18.3\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. MISSING | 8 | + 950 | $6.1 \%$ | (MISS) |
|  |  | 16695 | 100.0\% | 100.0\% |
| TOTALS: |  | 1665 | 100.0w | 100.0w |

## Quvetion

Tepe Pos. 225-225

F2T3_7G STAFF MEMBRS RECOGNIID FOR JOB WELL DONE Steff members ere recognixed for Job well done

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| STRONGLY DISACREE | 1 | 565 | A. 2\% | 7.7\% |
| DISAGREE.. ....... | 2 | 2605 | $16.8 \%$ | 30.1\% |
| agREE... | 3 | 4586 | 29.2\% | $60.4 \%$ |
|  | 4 | 989 | 6.3\% | 11.84 |
| RESERVED COOES: |  |  | 37.24 | (MISS) |
| NO TEACHER QUEX. |  | 6842 | $0.0 \%$ | (Miss) |
| MULTIPLE RESPORSE | 8 | 1007 | 8.44 | (MISS) |
| MISSING |  |  |  | -m-o |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Que:tion 3_7H
Tope Poei
Formeti $\mathrm{in}^{228-22 t}$
F2T3_7H GRADING PRACTICES CONSISTENT AND FAIR
Grading precticet are consiotent end fofy


Tape Posi 227-227
format: it
Question 3_7:
F2T3_7! RULES AGAINST CHEATING ACTIVELY ENFORCED
Rules egeinst cheating ere actively enforced


Question 3_8

Plese indicete which of the following pleces ere eveiluble and how much of your out-of-cless time during the school day you actueily epend in each.

| Question 3_8A |  | T\&pe Pos. 228-228 Formet: 11 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2T3_8A TIME SPENT IN FACULTY | LOUNGE |  |  |  |
| Faculty lounge |  |  |  |  |
| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
|  | 1 | 476 | 3.0\% | 5.4x |
|  | 2 | 4043 3775 | 19.4\% | 34.44 |
| AVAJLABLE, i SPEND LITTLE TIME | 3 | 3775 | 24.14 | 4 4 .80 |
| AVAILABLE, I SPEND SOME TIME.. | 4 | 1469 | 9.4\% | $15.7 \%$ |
| AVAILABLE, I SPEND MOST TIME.. RESERVED COOES: | 5 | 184 | 1.2\% | 2.0\% |
| RESER TEACHER GUEX. |  | 5842 | 37.2M | (MISS) |
| Missing........ | 8 | 806 | $5.8 \%$ | (MISS) |
| TOTALS: |  | 16685 | 100.0\% | 100.0\% |

## Question 3_88

Tepe Pos : 229-228

F2T3_8B TIME SPENT IN EMOKING AREA
Smoking erea

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NOT AVAILABLE | 1 | 3734 | 23.80 | 42.94 |
| AVAILABLE, NO TIME | 2 | 4659 | 29.0\% | $51.0 \%$ |
| AVAILABLE, LITRLE TIME | 3 | 266 | 1.7\% | 2.84 |
| AVAILABLE, SOWE TIME.. | 4 | 258 | 1.64 | 2.7\% |
| MOST TIME. $\dot{\text { RESERVED }} \mathrm{CO} \dot{\mathrm{B}} \mathrm{B}^{\prime} \cdot$. | 5 |  |  | 0.7\% |
| no teacher quex. |  | 6842 | 37.24 | (MISS) |
| NULTIPLE RESPONSE | 6 | ${ }^{3}$ | 0.04 | (MISS) |
| MissimC. . . . . . . . | 8 | 972 | 6.2\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Quortion 38C

F2T3_BC TIME SPENT IN LUNCH ROOM
Lunch room

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WGTD |
| :---: | :---: | :---: | :---: | :---: |
| not available | 1 | 455 | 2.9\% | 6.0\% |
| AVAILABLE, \SPEND NO TIME. | 2 | 3707 | 23.6\% | 41.5\% |
| available, i spend little time | 3 | 3137 | 20.0\% | 35.26 |
| AVAILABLE, $\ddagger$ SPEND SOME TIME.. | 4 | 1663 | 10.0\% | 16.8\% |
| available, ${ }^{\text {SPEND MOSt time }}$ | 5 | 69 | 0.4\% | 0.7\% |
| RESERVED COOES: NO TEACHER QUEX. |  | 5842 | 37.2\% | (MISS) |
| missinc. | 8 | 821 | 6.54 | (MISS) |
| totals: |  | 16695 | 100. | 100.0 |

Question ${ }^{\text {anden }}$
Tope Poe: 234-234
Formet: 11
F2T3_BC TIME SPENT IN OTHER TEACHERS' CLASSROOMS
Clagsroim of othur teachers

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { VGTO } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NOT AVAILABLE | 1 | 1884 | 12.0\% | 20.1\% |
| AVAILABLE, I SPEND NȮ TiME | 2 | 3089 | 19.7\% | 35.7\% |
| AVAILABLE, I SPEND LITTLE TIME | 3 | 3087 | 19.7\% | 34.9\% |
| AVAILABLE: I SPEND SOME TIME.. | 4 | 730 | 4.7\% | 8.3* |
| AVAILABLE, I SPEND MOST TIME. | 5 | 81 | O.BW | 0.8\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX. MiSSING. . . . . . . . . | 8 | 8842 872 | $37.2 \%$ | (M138) |
| TOTALS: |  | 15696 | 100.0\% | 100.0\% |

QUe:tion

Outside of chool

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER-- } \\ & \text { CENT } \end{aligned}$ | WCTD |
| :---: | :---: | :---: | :---: | :---: |
| not AVAllable. | 1 | 2868 | 16.4\% | 31.1\% |
|  | 2 | 2362 | 16.0\% | 27.7\% |
| AVAILABLE, I SPEND LITTLE TIME | 3 | 1609 | $10.3 \%$ | 19.4\% |
| AVAILABLE, I SPERD SOME TIME.. | 4 | 1657 | 10.6\% | 18.3\% |
| AVAJLABLE, I SPENO MOST TIME.. | 5 | 296 | 1.8\% | 3.4* |
| RESERVED COOES: NO TEACHER GUEX. |  | 6842 | 37.2\% | (M1Ss) |
| MULTIPLE RESPONSE | 6 | 2 | $0.0 \%$ | (HI8S) |
| MISSINE........... | 8 | 1370 | 0.7\% | (MISS) |
| TOTALS: |  | 15696 | 100.0\% | 100.0\% |

:2T3_AT TIME SPENT IN MY OFFICE
My office


## Question 3ng

Tope Pos, 233-233

F2T3_6F TIME SPENT IN DEPARTMENT OFFICE
Depertment office

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NOT AVAILABLE | 1 | 5036 | 32.14 | 69.2\% |
| AVAILABLE, I SPEND NO TIME | 2 | 800 | 6.14 | 8.3\% |
| AVAILABLE, I SPEND LITTLE TIHE | 3 | 1396 | 8.9\% | 16.8\% |
| AVAJLABLE, I SPEND SOME TIME, | 4 | 1133 | 7.2\% | 11.0\% |
| AVAILABLE, I SPEND MOST TIME.. | 6 | 497 | 3.2\% | 4.8\% |
| RESERVED COOES: <br> NO TEACHER QUEX |  | 8842 | 37.2W | (MISS) |
| NULTIPLE RESPONS | 6 |  | $0.0 \%$ | (M1S5) |
| MisSING..... | 8 | 980 | 6.3N | (MIES) |
| TOTALS: |  | 18695 | 100.0\% | 100.04 |

Tepe Po:i 232-232
Question 3_9

How much of your out-of-clas time during the school dity do you spond with eech of the following persons?

## Questien 3_9A <br> Tepe Pozi 236-236 Formet:

F2T3_8A TIME SPENT WITH TEACHERS IN DEPT
Teecherz in my depertment

| RESPONSE | COOES | FREQ | PERCENT | WGTD |
| :---: | :---: | :---: | :---: | :---: |
| NONE OF MY TIME | 1 | 492 | 3. 1\% | 5.3N |
| LITTLE OF MY TJME | 2 | 3258 | 20.84 | 36.9\% |
| SOME OF MY TIME.. | 3 | 4389 | $27.8 \%$ | 48.3\% |
| MOST OF MY TIME. | 4 | 820 | 8. $2 \%$ | 8.3W |
| RESERVED COOES: |  |  |  | (M15S) |
| NO TEACHER GUEX MISEING | d | 814 | 57.8\% | (M185) |
| TOTALS: |  | 18685 | 100.0\% | 100.0W |

Question 3-9B
Tope Pos ; 237-237
F2T3_gB TIME SPENT WITH TEACHERS OUTSIDE DEPT
Teechers out:ide my depertment


| Quastion 3_9C | Tepo Pot 238-238 Format: il |
| :---: | :---: |

F2T3_9C TIME SPENT WITH DEPARTMENT CHAIR
Departmant chair/subjact araa leader/curricular advisor

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WGTD |
| :---: | :---: | :---: | :---: | :---: |
| NONE OF MY TIME | 1 | 1551 | 9.94 | 18.2\% |
| LITTLE OF MY TIME | 2 | 3998 | 25.5\% | 47. 5\% |
| SOME OF MY TIME. | 3 | 2420 | 15.4W | 28.8\% |
| MOST OF MYY TIME. | 4 | 422 | 2.7\% | 6. 6\% |
| RESERVED CODES: <br> NO TEACHER QUEX |  | 8842 | 37.2\% | (MISS) |
| $\begin{aligned} & \text { NO TEACHER QUEX } \\ & \text { MISSING. . } \end{aligned}$ | 8 | 1462 | 8.3\% | (MISS) |
| TOTALS: |  | 15685 | 100.0\% | 100.0\% |

Question 3_1OB
Tape Pos, 242-242

F2T3 1OB DISCUSS ADAPTIAG MATERIAL TO BTU W/TCHAS
Adepting materiat: to particular studentz


F2T3_1OC DISCUSS NEW INSTRUCTIONL TECHNQS W/TCHRS
Naw inttructional tachniquas in my subjact


Question 3_100
Tope Pos 244-244
F2T3_100 DISCUSS SUBJECT AREA CURRICULUM W/TCHRS
Subjact eraa curriculum


## Question 3, $10 E$

Tope Pos i 245-245
Format: it
F2T3_1OE DISCUSS CURRICULUM FOR A COURSE W/TCHRS
Curricuium for particular courae


F2T3_1OF DISCUSS TESTING PROCEDURES W/TCHRS
Tost contant and tasting proceduras

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 1548 | 9.94 | 17.4\% |
| NEVER SOMETIMES | 2 | 6171 | 39.34 | 69.4\% |
| OFTEN... | 3 | 1214 | 7.7* | 13.2\% |
| RESERVED COOES: |  | 5842 |  | (M135) |
| NO TEACHER QUEX MISSING | 8 | 970 | B.9\% | (MISA) |
| TOTALS: |  | 18896 | 100.0\% | 100.0\% |


Question 3_10H $\quad$ Tepe Pos: 248-248

F2T3_1OH OISCUSS OTMER TEACHERS W/TCHRS
Other teeshere


Queation 3_11

With whom do you discust curriculum is:uez?

Question 3. 11 A

Tope Pos: 249-249
2T3_11A CISCUSS CURRICULUM W/TCHRS IN OEPT
Teechers in my depertment


## Question 3_118

Tope Pot: 250-260
F2T3_11B OISCUSS CURRICULUM W/TCHRS OUTSIOE OEPT
Teachere outelde my depertment


## Question 3_11C

Tope Pot $251-251$
Formot: if
F2T3_11C DISCUSS CURRICULUM W/OEPT CHAIR
Oepertment chair/iubject erea leeder/curriculer edvisor


| Quottion 3-11D |  | Tepe Poi ${ }^{\text {Format }}$ 252-252 |
| :---: | :---: | :---: |
|  |  |  |

F2T3_10 DISCUSS CURKICULUM WITH PRINCIPAL
Principal


F2T3_11E OISCUSS CURRICULM WITH OTHER ADMIFISTRTR
Other chool edministretor


Quystion 3_11F
Tope Pot: 254-254
F7T3_11F OIECUSS CURRICULUM W/TCHRS OUTSIOE SCH
Other teechert outide my ichool


## Quention 3_11G

Tepe Po: 255-255
F2T3_11C O:SCUSS CURRICULUM WITH PARENTS
Perenta

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES | 1 | 3715 | 23.74 | 42.24 |
| NO. | 2 | 5217 | 33.2\% | 57.84 |
| RESERVEO CODE |  |  | 37. 2 * |  |
| NO TEACHER |  | 6842 | 6. 6 | (NISS) |
| MULTIPLE RE | 8 | 918 | 5.8\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | $100.0 *$ |

Question 3_14

Tape Pot 256-256
Formati it
F2T3_11H DIsCUSS CURRICULM WITH OTHRE IN COMUNTY
Oifert in the comunity (businets leadora, untverifty

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WTD PCT |
| :---: | :---: | :---: | :---: | :---: |
| YES. | 1 | 2988 | 18.8\% | 33.7* |
|  | 2 | 897\% | 38.1\% | 66.3 K |
| NO TEACHER QUEX. MIssing. | 0 | ${ }^{6842}$ | $\begin{gathered} 37.2 \% \\ 8.8 \% \end{gathered}$ | $\begin{aligned} & \text { (MIS8) } \\ & \text { (MIas) } \end{aligned}$ |
| TOTALS: |  | 18895 | 100.0\% | 100.0\% |

Question 3_12

With whom do you diacusa performence of individual
studenta?

## Question 3.12A

Tape Pot: 257-257
F2T3_12A DISCUSS STDNT PERFORMNCE W/DEPT TEACHERS
Teechera in my department


F2T3_12B DISCUSS ST PERFRMNCE W/TCHRS OUTSDE DEPT
Teechere outzide my department


## Qusation 3_12C

Tepe Pos; 259-269
F2T3_12C DISCUSS STUDENT PERFORMANCE WIDEPT CHAIG
Depertment cheir/iubject eren leoders


## Queation 3_12D

Tape Pos i 260-280
F2T3_1ED DISCUSS STUDENT PERFORMANCE W/PRINCIPAL
Príncipal


F2T3_I2E DISCUSS STDNT PERFORMANCE H/COUNSELOR(S)
Guidance countelor(s)

| RESTONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES. | 1 | 8271 | 52.7\% | 83.8\% |
| NO... | 2 | 667 | 4.2\% | 6.2\% |
| RESERVED CQO |  | 6842 | 37.2\% | (MISS) |
| MJTIPLE RE | 6 | 6042 | 0.0\% | (MISS) |
| MISSING... | 8 | 813 | 5.8\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |



Question 3_12G
Tape Pot $i_{1}{ }^{263-263}$
Formet:
F2T3_12G DISCUSS STUDENT PERFORMANCE W/PARENTS



Question 3_13

To what extent hes eech of the following people at this
chool helpad you improve your teeching or solve an netructional or ciess mencyement problom?

## Question 3_13A

Tape Pos 264-26A
Formot: is
F2T3_13A EXTENT PAINCIPAL HELPED IMPROVE TEACHING
Principel or school heed


Tope Pozi 265-265
Formet:

F2T3_13B EXTENT DEPARTMNT CHAIR IMPROVED TEACHING
Depertment cheir/subject oree leeder


TOTALS:

Tope Pos in 266-266
Formet:

## quetion 3_13C

F2T3_13C EXTENT OTH ADMINISTRATRS IMPROVD TEACHNG
Other school edmintetretors

| RESPOHSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { wGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 1806 | 11. 5 ¢ | 18.1\% |
| DID NOT PROVIDE ANY HEL | 2 | 1675 | 10.7\% | 17.6\% |
|  | 3 | 3658 | $23.3 \%$ | 42.7\% |
| EXTREMELY HELPFUL. | 4 | 1185 | 7.6\% | 13.7\% |
| NOT APPLICABLE. . . . . . . | 5 | 714 | 4.6\% | 8.0\% |
| RESERVED CODES: |  | 5842 | 37.2\% | (m1ss) |
| NO TEACHER QUEX. ${ }^{\text {P }}$ |  | - 2 | 0.0\% | (M1S5) |
| MULTIPLE RESPONSE. | 8 | 813 | E. 2\% | (MISS) |
| MISSING. |  | -13 |  |  |
| TOTALS: |  | 15696 | 100.0\% | 100.0\% |

## Queation 3

Tepe Pos: 267-267
Formet: it
F2T3_13D EXTENT TCHRS IN DEPT IMPROVED TEACHING
Teachers in my depertmentsubject eroi


Question 3_13E
Tepe Pos: 268-268
F2T3_13E EXTENT TCHRS OUTSDE DEPT IMPROVD TEACHNG
Teechers outside my depertment/subject eree

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| DID NOT PROVIDE ANY HELP | 1 | 1653 | 10. 5\% | 17.44 |
| NOT HELPFUL....... | 2 | 1606 | 9. ${ }^{6} \%$ | 17.0\% |
| MODERATELY HELPFUL | 3 | 4092 | $26.1 \%$ | 44.94 |
| EXTREMELY HELPFUL | 4 | 1080 | 6.9\% | 13.6\% |
| NOT APPLICABLE. . . . | 6 | 702 | 4.8W | 7.3\% |
| RESERVED COOES: HO TEACHER QUEX MISSING. | 8 | $\begin{array}{r}8842 \\ 810 \\ \hline-29\end{array}$ | 37.2\% | (MISS) |
| TOTALS: |  | 16695 | 100.0\% | 100.0\% |

Question 3_13F
Tope Pos i 269-269
Formet: it
F2T3_13F EXTENT PERSONNEL GROUP IMPROVED TEACHING
Parionnel group or committee


## Questión 3_14

Dideny of the following events toke pisce thte echool yoeritif so, whet wes the source of those chenges?

## Question 3_14A

Tape Pos: 270-270

F2T3_14A CHANGED CLASSROOM TESTING PRACTICES
Chenged clessroom testing prectleas

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| DECISION TO CHANGE DID NOT | 1 | 6461 | 41.2\% | 74.2\% |
|  | 1 |  |  |  |
| CHANGE. . ${ }^{\text {Pr }}$ | 2 | 1596 | 10.2* | 18.3\% |
| DECISION TO CHANGE AT | 3 | 208 | 1.3\% | 2.2\% |
|  | 3 | 208 |  |  |
| LEVEL. . . | 4 | 236 | 1.8W | 2.5\% |
| DECISION TO CHANGE AT | 6 | 218 | 1.4\% | 2.4\% |
| DISTRICT OR STATE LEVEL........ | 6 | 218 | 1.4N |  |
| RESERVED COOES: |  | 5842 | 37.2\% | (M153) |
| NO TEACHER QUEX. . . . . . . . . . |  | - 2 | $0.0 \%$ | (miss) |
| MISTIPLE RESPONSE............. | 8 | 1132 | 7.2\% | (MISE) |
|  |  | 18685 | 100.0\% | 100.0\% |



## Questinn 3_14C

F2T3_14C CHANGED CURRICULAR FOCUS
Chenged curriculer focus


## Queition 3_14D

F2T3_I4D CHANGED TEACHING PRACTICES
Chenged teeching practicas


Quastion 3_18A
Tepe Pos ; 274-274
F2T3_1BA TARDINESS ADSENTEEI8M INTERFER W/TCHNG
The emount of student terdines: c cless cutting, end
obsenteoigm in this echool interferes with my toeching


F2T3_15B STUDNTS' ATTITUDES REDUCE ACADMC SUCCESS
The ettitudes end habits students bring to my ciest preetiy reduce their chences for ecedemic ucuces:


F2T3_15C RULES FOR STUDENT BEHAVIOR ARE ENFORCED
Rules for etudent behevior ere consiztently entorced in
this achool


| Question 3_16A | Tepe Pos intin-277 |
| :--- | :--- |

F2T3_IGA DEGREE TARDINESS A PROBLEM W/STUDENTS
Tordines:
To whst extent do you egreewith aech of the following your chool?


| Question 3_16日 | Tupe Pot. 278-276 Formet: 11 |
| :---: | :---: |

F2T3_16B DEGREE PHYSICAL CONFLICTS A PROBLEM
Phyeicel confitet emong students

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| SERIOUS PROBLEM. | 1 | 303 | 1.9\% | 3. 3\% |
| MODERATE PROBLEM. | 2 | -1436 | 9.1\% | 16.4\% |
| MINOR PROBLEM. . . | 3 | -4404 | 28.1\% | 53.3\% |
| NOT A PFOBLEM. | 4 | 2915 | 18.6\% | 26.9\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX. . |  | $8842$ | 37.2\% |  |
| WULTIPLE RESPONSE MISSING. | 6 8 | 794 | $0.0 \%$ $5.1 \%$ | (MISS) <br> (M1SS) |
| , |  |  |  |  |
| TOTALS: |  | 1869 E | 100.0\% | 100.0\% |

Tepe Pot ${ }^{279-279}$
Format: $1{ }^{279}$
Queztion 3_16C

Question 3_16F
Tepe Posi 282-282
Formet:
F2T3_16F DECREE ABSENTEEISM A PROBLEM
Absenteelem

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| SERIOUS PRORLEM, | 1 | 2257 | 14.4\% | 26.64 |
| MODERATE PROBLEM. | 2 | 3106 | 19.84 | 35.24 |
| MINOR PROBLEM. | 3 | 3028 | $19.3 \%$ | 31.94 |
| NOT A PROBLEM. | 4 | 664 | 4.2\% | 6. 4\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX.. <br> MULTIPLE RESPONSE | 6 | 5842 | 37.2\% | (MISS) |
| MISSING......... | 8 | 796 | 5.14 | ( MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question 3_16G

Tope Por if ${ }^{283-283}$

H PRBLM
F2T3_16G DEGREE SALE OF DRUGS TO/FROM SCH A PRBLM
Sele of druge to etudente on the wey to echool end/or on chool grounds

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| SERIOUS PROBLEM. | 1 | 219 | 1.4\% | 2.5\% |
| MODERATE PROBLEM, | 2 | 1337 | 8.5\% | 16.5\% |
| MINOR PROBLEM. | 3 | 4281 | $27.3 \%$ | 48.44 |
| NOT A PROBLEM. | 4 | 3166 | 20.2\% | 32.6\% |
| RESERVED CODES: <br> NO TEACHER qUEX |  | 5842 | 37.2\% | (MISS) |
| MISSING........ | 8 | 850 | 5.4\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Question 3_16H
Tepe Posi 284-284
Format: II
F2TS_16H DEGREE USE OF ALCOHOL A PROBLEM
Lee of icohol

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WGTO PCT |
| :---: | :---: | :---: | :---: | :---: |
| SERIOUS PROBLEM. | 1 | 873 | 5.6\% | 9.74 |
| MODERATE PROSLEM. | 2 | 2766 | 17.6\% | 32.2M |
| MINOR PROBLEM. | 3 | 3923 | 25.0\% | 42.6\% |
| NOT A PROBLEM. | 4 | 1477 | 9.44 | 15.5\% |
| RESERVED CODES: |  |  |  |  |
| no teacher quex. |  | 5842 | 37.2\% | (MISS) |
| MULTIPLE RESPONSE MISSING | 8 | 823 | O.OH 5.2 h | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question 3_isE

F2T3_16E DEGREE VANDALISM A PROBLEM
Vendeliam

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WGTD |
| :---: | :---: | :---: | :---: | :---: |
| SERIOUS PROBLEM. | 1 | 340 | 2.2\% | 3.6\% |
| MODERATE PROBLEM. | 2 | 1532 | 9.84 | 16.4\% |
| MINOR PROBLEM. . . | 3 | 4532 | 28.9\% | 51.34 |
| NOT A PROBLEM. | 4 | 2651 | 16.9\% | 28.7* |
| RESERVED CODES: <br> NO TEACHER QUEX |  |  | 37.2\% | (MISS) |
| MISSING. | 8 | 798 | $5.13$ | (MISE) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |



Tepe Pos; 286-286
Formati it
Quetition 3_16J

F2T3_16J DEGREE POSSESSION OF WEAPONS A PRORLEM
Posefseion of werpons


Question 3_16K
F2T3_16K DEGREE PHYSICAL ABUSE OF TCHRS A PROBLEM Physicel abuse of teachers


Tepe Pos $\mathrm{if}^{\text {288-288 }}$
Formet:

F2T3 16L DEGREE CLASS CUTTING A PROBLEM
Cless cutting

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| SERIOUS PROBLEM. | 1 | 1263 | $8.0 \%$ | 14.6\% |
| MODERATE PROBLEM. | 2 | 2298 | 14.6\% | 27,44 |
| MINOR PROBLEM... | 3 | 3943 | 25.1\% | 43.3\% |
| NOT A PROBLEM. | 4 | 1541 | 9.8* | 14.8\% |
| RESERVED CODES: |  |  |  | ( mi $^{\text {SS }}$ ) |
| MISSING. | 8 | 808 | 5.14 | (miss) |
| TOTALS: |  | 6685 | 100.04 | 100.0\% |

## Question 3_16N

Teps Pos i 280-230
F2T3_16n DEGREE VERBAL AEUSE OF TEACHERS A PROBLM
Verisel abuse of teechers

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { YGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| SERIOUS PROELEM. | 1 | 868 | 3.64 | 6.7\% |
| MODERATE PROELEM | 2 | 1700 | 10.84 | 19.1\% |
| MINOR PROELEM. | 3 | 3863 | 24.6\% | 45.8\% |
| NOT A PROELEM. | 4 | 2813 | 18.6\% | 28.0\% |
| RESERVED COOES : |  |  |  |  |
| NO TEACHER QUEX |  | 5842 | 37.2\% | (MiSS) |
| M1s81mC. | 8 | 809 | 6.2\% | (mis5) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question 3_i60

Tepe Pos: 291-291
F2T3_160 DEGREE RACIAL CONFLICTS AMONG STUS PRBLM
Raciol/othnic conflicts ameng tudent:


## Qunstion 3_16P

Tape Pos 292-232
F2T3_16P DEGREE CHEATING ON WRITTEN WORK A PROBLM
Cheeting on test or written essignments

| RESPONSE | CCOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| SERIOUS PRORLEM. | 1 | 998 | 6.4\% | 10.6\% |
| MODERATE PROBLEM | 2 | 3076 | 19.6\% | 36.5\% |
| MINOR PROBLEM. . . | 3 | 4276 | 27.2\% | 45.9\% |
| NOT A PROBLEM. | 4 | 703 | 4. $\mathrm{F}^{*}$ | 6.9* |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX | 8 | 6842 800 | 37.2\% | (Miss) |
|  |  |  | --* |  |
| TOTALS: |  | 15695 | 100.0\% | 100.04 |

PART IV. TEACHER BACKGROUND AND ACTIVITIES

| Question 4 |  | Tape Poz: 293-293 Format: il |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2T4_1 TEACHER'S SEX |  |  |  |  |
| Whet is your sex? |  |  |  |  |
| RESPONSE | cooes | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| MALE. . . . . . . . . | 1 | 5817 3918 | $\begin{aligned} & 37.14 \\ & 25.04 \end{aligned}$ | $\begin{aligned} & 59.54 \\ & 40.6 \% \end{aligned}$ |
| FEMALE................ RESERYED CODES: | 2 | 3918 | $25.04$ | $\text { 40. } 6 \%$ |
| no TEACHER QUEX MIS5ING. | 8 | 5842 118 | 37.2\% | (MISS) <br> (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Quettion

## Tope Pot it 294-294 Formet:

F2T4_2 TEACHER'S ETHNIC BACKGROUND
Which beit detcribet you?

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| OTHER | 1 | 160 | 1.0* | 2.3* |
| HISPANIC REGARDLESS OF RACE. | 2 | 242 | 1.5\% | 2. $5 \%$ |
| BLACK, NOT OF HISPANIC ORICIN. | 3 | 301 | 1.8\% | 3.7\% |
| WHITE, NOT OF HISPANIC ORIGIN. | 4 | 8981 | 67.3\% | 91.8\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX |  | 5842 | 37.2M | (M1SS) |
| MULTIPLE RESPONSE | 6 | 10 | $0.1 \%$ | (MISS) |
| MISSINC......... | 8 | 149 | 0.9* | (MiSS) |
| TOTALS: |  | 16695 | 100.0\% | 100.0* |

NOTE: Thit veriable wit recoded on the public end restricted data filet by NCES in eccordence.with the
confidentiolity previtiont of PL $100-297$.

## Question 4_3

Tepe Pos: 295-296
F2TA_3 YEAR OF TEACHER'S BIRTH
Whet is the your of your birth


NOTE: Thit veriable wet recoded on the pubile and
rettricted dote filios by NCES in eccordence with the
confidentitility provitiont of PL 100-297.

Question 4_4

Counting thit your, how many yeere in totel have you tought at ithor thiolomantary or acondary loveli (if ANSWER IS
ZERO, WRITE "OO")


[^28]
## Quetion 4_4B

Tepe Pot: 299-300
F2T4_4B YEARS TAUGHT AT THE SECONDARY LEVEL
Number of yeer: teught ot the econdery level (7-12)
rotals

| CODES | FREQ | PER- <br> CENT | PGTD |
| ---: | ---: | ---: | ---: |
| PCT |  |  |  |

NOTE: This variable wes recoded on the publite ceta fila by
NEES ia ecordance with the confidentiality provisions of NCES 100-297.
Tepe Pozi 301-302
Formet: i2
F2T4_E TOTAL YEARS TAUCHT IN THIS SCHOOL
Counting this yeer, how meny yeert in totel heve you teught


NOTE: This verieble wet recoded on the public dete file by
NCES ineccordence with the confidentiolity provitiont of
PL 100-297.

Tops Pos i 303-SO3
Format: it
F2TA_6 EMPLOYMENT STATUS IN THIS SCHOOL/SYSTEM
Whot ti your omploymont statut in thit echool or echoot
ty:tom?


Question

F2TA_7A MATHEMATICS TEACMIMG CERTIFICATION
Moth


Whet ecedamic degree( $\mathrm{E}_{\text {) }}$ do you hold?


## Question 4_88

Tepe Pos; 303-302
Formati
F2T4_8s ASSOCIATE DEGREE HELD
ABsoritete degree


## Question 480

Tepe Poy $311-311$
Formet:
F2T4_8D MASTER'S DEGREE HELD
Mester'*


## Question 4_8E

Tope Poif 312-312
Formet:
F2TA_BE EDUCATION SPECIALIST DEGREE HELD
Education specialist or profestional diplome et lest one yeer of work beyond metter's level

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | $1$ | $1186$ | 7.44 | 13.0\% |
| APPLIES NOT' $\dot{A P P} \dot{P} \dot{Y} \dot{Y}$ | 2 | 7905 | 60.4\% | 87.0\% |
| RESERVED CCOES: |  |  |  |  |
| NO TEACHER QUEX | 8 | 5842 782 | 37.0\% | (miss) |
| TOTALS: |  | 18898 | 100.0\% | 100.0\% |

Queition 4_8F
Tepe Pesi 313-313
Formet:
F2T4_8F DOCTORATE DEGREE HELD
Doctorete

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 215 | 1. 4\% | 1.7\% |
| DOES NOT APPLY'..................... | 2 | 8856 | 66.4\% | 98.3\% |
| RESERVED CODES: |  | 8842 | 37.2\% | (M18S) |
| MOISSING. . . . . . . . . . . . . . . . . . . . . | 8 | 782 | $6.0 \%$ | (MISS) |
| TOTALS |  | 18898 | 100.0\% | 106.0\% |


| Quettion | 4-0. | Tepe Pot. 314-314 Format: 11 |
| :---: | :---: | :---: |

F2TA_8G FIRST PROFESSIONAL DEGREE HELD
Firet profestional degree (e.g., M.D., D.D.s.)

Q.astion $4=8$

Whet were your major and minor ftelds of etudy for your
bechelor's degraet?

Quertion
Tope Pos; 315-315
F2TA_OA1 BACHELOR'S DEGREE MAJOR: EDUCATION
Major - Educetion


## Quettion 4.ant

Tepe Pos: 316-316
Formet: il
F2T4_8B1 BACHELOR'S DEGREE MAJOR: MATMEMATICS
Mejor - Methemeties


Question 4.8Ci
ape Po: 317-317
F2TA_gCi BACH DEG MUNOR: NATURAL/PHYSICAL SCIENCE
Mejor - Neturol/physicel scionces

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \mathrm{WGTD} \\ & \hline \mathrm{PCT} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES... | 1 | 1744 | 11.1\% | 10.6\% |
| DOES NOT' APP'̇'. | 2 | 7328 | 46.7\% | $81.4 \%$ |
| RESERVED CODES: |  |  | 37.2M | (M185) |
|  | 8 | 773 | 4.8\% | (M155) |
|  | 8 | - 7 | $0.0 \%$ | (M18S) |
| rot |  | 18895 | 100.0\% | 100.0\% |

## Quetition 4.901

Tope Pos: 3i8-318
F2TA_ODI BACH DEG MAJOR: LIFE/EIOLOGICAL BCIENCES
Mejor - Lifa/biologieal ectances

| RESPOMSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES. | 1 | 1648 | 10.54 | 15.14 |
| DOES NOT APPLY. | 2 | 7426 | $47.3 \%$ | 80.9\% |
| RESERYED CODES: |  |  |  |  |
| no teacher quex. MISSING. | 8 | 6842 773 | $37.2 \%$ $4.9 \%$ | (MISS) |
|  | 9 | 7 | 0.0\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Question
Tepe Pos: 319-319
F2TA_9E1 BACHELOR'S DEGREE MAJOR: COMPUTR SCIENCE
Mejor - Computer titence

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CEAT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 97 | 0.6\% | 1.14 |
| DOES MOT APPLY. | 2 | 8876 | B7.2\% | 98.9\% |
| RESERVED COOES : |  |  |  |  |
| NO TEACHER QUEX. . . . . . . . . . . |  | 7873 | 47.8\% | (M1SS) |
|  | 9 | 773 | $4.8 \%$ $0.0 \%$ | (MISS) |
| TOTALS: |  | --26- | 100.0\% | 100.0\% |



TCTALS:

Tope Pos: 321-321
Formet: 11
Quetion AG1
F2T4_8G1 BACHELOR'S DEGREE MANOR: ENGLISH
Major - English

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { HGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES.... | 1 | 189 | 1.0\% | $1.5 \%$ |
| DOES NOT APPLY . . . . . . . . . . . . . . | 2 | 8914 |  |  |
| RESERVED COOES: |  |  | 37.2M | (M155) |
| MOISEIACHER QEK............... | 8 | 773 | 4.94 | (M1S5) |
| Legitimite sxip'. | 8 | 7 | 0.0\% | (MISG) |
| TOTALS: |  | 16685 | 800.0\% | 100.0\% |



F2TA_OHI SACHELOR'S DEGREE MANOR: HISTORY
Major - Hietory (or acial studies/social geiance)

Question $\quad$ Tupe Po: $\quad$ Format: if ${ }^{323-323}$

F2TA_911 BACHEI.OR'S DEGREE MAJOR: OTHER AREA
Major - Othar

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES. | 1 | 1063 | 6.8\% | 12.8\% |
| DOES NOT APPLY. | 2 | 8010 | 51.0 cm | 87.5* |
| RESERVED CODES: |  | 5842 | $37.2 \%$ | (M1SS) |
|  |  |  |  | (M1SS) |
| MISSITHGAXATE SKip | 8 | $\begin{array}{r}773 \\ \hline\end{array}$ | 0.0\% | (M15S) |
| rotals: |  | 18695 | 100.0\% | 100.0\% |

rotals:

Tape Pot. 324-324
Format: it

F2TA 9A2 BACHELOR'S DEGREE MINOR: EDUCATION
Hinor - Educetion

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 1526 | 9.7\% | 15. $5 \%$ |
| DOES NOT APPLY. | 2 | 7647 |  |  |
| RESERVED CODES: |  | 5842 | 37.2W | (MISS) |
| NOISSING..... | 8 | 773 | ¢.9\% | (MISS) |
|  | 9 | 7 | 0.0\% | (M1SS) |
| rotals: |  | 18695 | 100.0\% | 100.0* |

Quettion 4_982
Tepe Poz 325-325
F2T4 982 BACHELOR'S DEGREE MINOR: MATHEMATICS
Minor - Methematict

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES. | 1 | 1527 7546 | $9.7 \%$ | $\begin{aligned} & 17.5 \% \\ & 82.5 \% \end{aligned}$ |
| DOES NOT APPLY:. | 2 | 7546 |  |  |
| RESERVED CODES: |  | 5842 | 37.2\% | (MISS) |
| NO TEACHER Q | 8 | 773 | 4.94 | (MISS) |
| LEGITIMATE SK̇í | 9 | 7 | 0.0\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

TOTALS:

Tape Poti 326-326
Formet: it
Question 4.9C2
F2T4.9C2 BACH DEG MINOR: NATURAL/PHYSICAL SCIENCE
Minor - Naturel/physical sciences


Quetition 4-9D2
Tape Po: ; 327-327
F2TA 9D2 BACH DEG MINOR: LIFE/BIOLOGICAL SCIENCES
Minor - Life/biological sciencet

| RESPONSE | CODES | FREQ | PERCENT | WGTD PCT |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 710 | 4.5\% | 9.34 |
| DOES NOT APPLY. | 2 | 8363 |  |  |
| RESERVED CODES: |  | 5842 | 37.2\% | (M1SS) |
| NOISSING | 8 | 773 | $4.8 \%$ | (MISS) |
| MISGITIMATE ${ }^{\text {M }}$ | 9 | 7 | $0.0 \%$ | (M1S3) |
| rorals: |  | 15695 | 100.0* | 100.0\% |

TOTALS:

## Queetion 4-8E2

Tape Poe: ${ }^{328-328}$
Format:
FZT4_ge2 EACHELOR'S DEGREE MINOR: COMPUTR BCIENCE
Minor - Computer acience

| RESPON8E | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 241 | 1.5\% | 2.8\% |
| DOES NOT APPLY. | 2 | 8832 | $56.3 \%$ |  |
| RESERYED CODES: |  | 5842 | 37.2\% | (M185) |
| NO TEACHER Q | 8 | 773 | 4.8\% | (M185) |
| LEGITIMATE SKiP | 9 | 7 | 0.0\% | (M148) |
| TOTALS: |  | 15698 | 100.0\% | 100.0\% |

## Question 4_8F2

Tepe Poti ${ }^{328-328}$
Format:
F2TA_9F2 BACHELCR'S DEGREE MINOR: FOREIGN LANGUAG
Minor - Foreign lenguage


Queetion 4_8G2
Tope Pot: 330-330
Formet: i1
F2T4_9G2 BACHELOR'S DEGREE MINOR: ENGLISH
Minor - Englioh


Quetion 4
Tepe Posi 331-331
Format: it
F2T4_9H2 BACHELOR'S DEGREE MINOR: HISTORY
Minor - History (or zocial studiealaocial actence)


## Question 4_912

Tepe Pos, 332-332
F2TA_9:2 BACHELOR'S DEGREE MINOR: OTHER AREA
Minor - Other

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTO } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 1142 | 7.3\% | 14.04 |
| DOES NOT'ȦApiqu' | 2 | 7931 | 60.6\% | $86.0 \%$ |
| RESERVED COOES: |  | 8842 | 37.2\% | (MISS) |
| NO TEACHER QUEX | 8 | 773 | 4.9\% | (Miss) |
| LEGITIMATE sísip | 9 | 7 | 0.0\% | (M155) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Quetion 4_10

What wore your primery end secondery fiolds of etudy for your highest greduate degree?


Tapa Pos; 333-333
F2T4_10 TCHR DID NOT RECEIVE GRADUATE DEGREE
Not applicable; did not receive ereduata degree

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WGTD |
| :---: | :---: | :---: | :---: | :---: |
| NOT APPLICABLE; DID NOT |  |  |  |  |
| RECEIVE A GRADUATE DEGREE | 1 | 3437 | $21.9 \%$ | 37.24 |
| RECEIVED GRADUATE DEGREE. | 2 | 6409 | 40.8\% | 62.8\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.2\% | (MISS) |
| LECITIMATE SKIP | 9 | 7 | 0.0* | (MISS) |
| TOTALS: |  | 15685 | 100.0\% | 100.0\% |

## Question 41001

Tape Poti 334-334
F2TAIOA1 GRADUATE DEGREE PRIMARY: EDUCATION
Primary - Education


F2TA10BI GRADUATE DEGREE PRIMARY: WATHEMATICS
Primary - Mathematice

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER-- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 1571 | 10.0\% | 26.2\% |
| DOES NOT APPLY. | 2 | 4038 | 25.7\% | 73.8\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.2\% | (mISS) |
| MISSING. | 8 | 800 | 5. 14 | (M1SS) |
| LEGITIMATE SKIP. | 9 | 3444 | $21.9 \%$ | (MISS) |
| TOTALS: |  | 15685 | 100.0\% | 100.0* |

## Question 410ci

Tape Poz ${ }^{\text {336-336 }}$
Formet: it
F2T41OCI GRAD DEGREE PRIMARY: NATL/PHYSICL SCIENC
Primery - Naturel/physteal sciancet

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WCTD } \\ & \hline \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 800 | 5.18 | 12.8\% |
| DOES NOT APPLY | 2 | 4809 | 30.89 | 87.2\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX. |  | 6842 | 37.2M | (M1SS) |
| MISSING.... | 8 | 800 | 5.1\% | (MIES) |
| LEGITIMATE SKIP. | 9 | 3444 | $21.9 \%$ | (M138) |
| TOTALS: |  | 18685 | 100.0\% | 100.0\% |

Question 41001
F2T41001 GRAD DEG PRIMARY: LIFE/BIOLOGCL SCIENCE
Primary - Lifa/biological sciences.

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES. | 1 | 599 | 3.8\% | 11.4\% |
| DOES NOT APPLY. | 2 | 5010 | 31.9\% | 88.6\% |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37. 2\% | (M1SS) |
| MISSING. | 8 | 800 | 5.1\% | (MISS) |
| LEGITIMATE SKIP. | 9 | 3444 | 21.9\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |


| Quention 410 E 1 | Tape Posi 33s-338 |
| :--- | :--- |

F2T410E1 GRADUATE DEG PRIMARY: COMPUTER SCIENCE
Primary - Computer science

| RESPCNSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \hline \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 123 | 0.84 | 2.0\% |
| DOES NOT APPLY | 2 | 5486 | 35.06 | 88.0\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | 37.2\% | (MISS) |
| MISSING. | 8 | 800 | 5.1\% | (MISS) |
| LEGITIMATE SKIP. | 9 | 3444 | 21.9\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0N |



Question 410Gi
Tape Poo i 340-340
Formet: 11
F2T410G1 GRADUATE DEGREE PRIMARY: ENGLISH
Primary - English

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER-' } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { wGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 14 | 0.1\% | 0.2\% |
| DOES NOT APPLY | 2 | 5695. | 36.6\% | 89.8\% |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 6842 | 37.2\% | (MISS) |
| MISSING. | 8 | 800 | 5.1 \% | (MISS) |
| LEGITIMATE SKIP. | 9 | 3444 | 21.9\% | (mi 8S) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |


| Queition | 410 H 1 |  | Tape Pos: 341-341Formak: it |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| F2T410H1 | GRADUATE DEGREE PRIMARY: HISTORY |  |  |  |  |
| Primary - Hietory (or eccial studiesfsocial science) |  |  |  |  |  |
| RESPONSE |  | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \hline \text { PCT } \end{aligned}$ |
|  |  |  |  |  |  |
| RESERVED CODES: |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | 800 | 21.14 | (M188) |
| LEGIT | TE 8Ki | 9 | 3444 | 21.84 | (M185) |
| TOTALS: |  |  | 18695 | 100.0\% | 100.0\% |

## Question 41011

Tope Poz 342-342
Format: II

F2T410I 1 GRADUATE DEGREE PRIMARY: OTHER AREA
Primery - Other


## Quetion $110 E 2$

F2T410E2 GRADUATE DEG 8ECONDARY: COMPUTR SCIENCE
secondary - Computer sctence


## Question 410 Fz

Tope Pot if 348-348
Format :
F2T41OF2 GRADUATE DECTREE SECONDARY: FOREIGN LANG
Sacondery - Foreign languege

Question 41062

Tope Pos it 349-349
Format:
F2T410G2 GRADUATE DEGREE SECONDARY: ENGLISH
Secondary - Englieh
Secondery - Neturel/phytical sctances

F2TA1OC2 GRAD DEC SECONDARY: NATL/P
Secondery- Neturel/physical setances


Question 41002
Tape Posi 346-346
Formet: 11
Formet: 1
F2T410D3 GRAD DEG SECONDARY: LIFE/BIOLOGCL SCIENC
Secondary - Life/biological itcience:



Question $410+12$
Tape Pori ${ }^{350-350}$
Formet: in
F2T41OH2 GRADUATE DEGREE SECONDARY: HISTORY
Secondery - History (or sociel tudles/social ecience)
question 41012

F2TA1012 GRAOUATE DEGREE SECONDARY: OTHER AREA
Secondery - Othe

| RESPONSE | COOES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| IES | 1 | 507 | 3.2\% | 9.6\% |
| DOES NOT APPLíY. | 2 | 5102 | 32.54 | 80.4\% |
| RESERVED CODES: |  | 5842 | 37.24 | (M1SS) |
| NO TEACHER QUEX. | 8 | 800 | $5.1 \%$ | (HISS) |
| MISSINGAYME S'̇ | 8 | 3444 | 21.9\% | (miss) |
| LeGITImATE SK |  |  | ----- | --- |
| TOTALS: |  | 15695 | 100.0* | 100.0\% |

## Question 4_11

Darken the oval betide any of the following subjects which you have taught this yer. (mARK ALL THAT APPLY)
question

Tape Pos. 362-352
question 4_11A
F2TA_11A TAUGHT MATHEMATICS THIS YEAR


## Question A<compat>I18

Tops Pos; 353-353
Format: ${ }^{\text {3 }}$
F2TA_11B TAUGHT SCIENCE THIS YEAR

Question $4=11 \bar{C}$

Tope Pos ${ }^{\text {Format: }}$ 354-354 Format:

Euestion 4-11J

Tope Pos; 361-361 F2TA_11J TAUGHT PHYSICAL EDUCATION THIS YEAR Phyetcel education


Quatition

## $=11 E$

F2TA_. $11 E$ TAUGHT A FOREIGN LANGUAGE THIS YEAR
Foreign language


## Question 4_11K

Tope Pos; $362-362$
Formet
F2TA_11K TAUGHT SPECIAL EDUCATION THIS YEAR
spacial sducation


Queetion a_11L
Tepe Pos: 363-363
Formet: 1

Queotion A12C
Tepe Pon; 3e8-356
Formet:
F2T4_12C TAUCHT ALGEBRA I FREQUENTLY THIS YEAR
Aigabre 1


F2T4_12D TAUGHT ALGERRA II FREQUENTLY THIS YEAR
Algabre II

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 2185 | 14.0\% | 26.8\% |
| DOES MOT APPLY | 2 | 6798 | 43.3\% | 73.2\% |
| RESERVED CODE MO TEACHER MES: WG. | 8 | $\begin{array}{r} 5642 \\ 860 \end{array}$ | $\begin{array}{r} 37.2 \% \\ 5.5 \% \end{array}$ | $\begin{aligned} & \text { (M1s8) } \\ & \text { (MI8S) } \end{aligned}$ |
| TOTALS: |  | 15098 | 100.0\% | 100.0\% |

Question A_12E
Tope Pon; 388-368
F2TA_12E TAUGHT GEOMETRY FREQUENTLY THIS YEAR
Geomatry


Tope Pos; ${ }^{\text {389-365 }}$
Formet:
F2TA_12F TAUGHT TRICONOMETRY FREQUENTLY THIS YEAR
Trigonometry

| RESPONSE | cooes | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { wCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES. | 1 | 1564 | 10.0\% | 16.7\% |
| DOES NOT APPLY. . . . . . . . . . . . . . | 2 | 7429 | $47.3 \%$ | 83.3\% |
| RESERYED COOES: |  |  |  |  |
| NO TEACHER QEX. . . . . . . . . . . |  | 5842 | 37.2\% | (M1SS) |
| MISSING. . . . . . . . . . . . . . . . . . | 8 | 860 | 5.5\% | (miss) |
| TOTALS: |  | 15695 | 100.0\% | 100.0n |


| Quwition 4_12G |  | Tepe Pos: 370-370 Format: il |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2TA_12G TAUCHT PRE-CALCULUS | FREQUENTLY | Thls | YEAR |  |
| Pra-Calculus |  |  |  |  |
| RESPONSE | codes | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| APPLIES. DOES NOT APPIY $\qquad$ | $\begin{aligned} & \mathbf{1} \\ & \mathbf{2} \end{aligned}$ | 1774 | 11.3\% | 18.4\% |
| DOES NOT APPLY.................. . . RESERVED COOES: | 2 | 7219 | 46.0\% | 81.6\% |
| MO TEACHER QUEX. . . . . . . . . . . . | 8 | 8842 860 | 37.2\% | (m1ss) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |



F2T4_121 TAUCHT COWSUNER/EUS MATH FEEONLY THIS VR
Consumer/tuitinete Moth

| RESPOHSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { घgTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 581 | 3. 5\% | 6.3\% |
| DOES NOT APPLY | 2 | 8442 | 53.8\% | 93.5\% |
| RESERVED CODE NO TEACHER MISSIMG. | 8 | $\begin{array}{r} 5842 \\ 860 \end{array}$ | $\begin{array}{r} 37.2 \% \\ 5.5 \% \end{array}$ | (MISS) <br> (M1S5) |
| TOTALS: |  | 16698 | 100.0\% | 100.0\% |

Question 4.12J
Tepe Po: $i_{1}^{373-273}$
Formet:
F2TA_12J TAUGHT AP CALCULUS FREQUENTLY THIS YEAR
AP Calculu:

Question $4.12 K$

Tope Poti 374-374
Formet: it
F2T4_12K TAUGHT OTHER MATH FREQUENTLY THIS YEAR
Other Math


TOTALS:

Tope Pot $i^{375-375}$
Format:
Question á=12L
Format:
F2TA_12L TAUCHT GENERAL SCIENCE FREQNLY THIS YEAR
General Scienco


Tapn Pos: 378-378
Formati 11
Question 4_2m
F2TA_12m TANGHT GEN PHYSCL SCI FRECUENTLY THIS Vh
Cenerel Physicel Eeianee


Quetion
Tupo Poi ${ }^{\text {377-377 }}$
Formet:
F2TA_12N TALKHT EARTH SCIENCE FREQUENTLY THIS YR
Eerth geienee


Queation 4120

Tepe Poif 378-378
Format: $i_{1}$

F2TA_120 TAUGHT PRINCPL OF TECHGY FREQNLY THIS YR
Principles of Technology


## Question

Tope Pot 379-379
F2T4_12P TAUGHT BIOLOGY FREQUENTLY THIS YEAR
Biology


## question 4-12Q

Tape Pos; 380-380
F2T4_12Q TAUGHT CHEMISTRY FREQUENTLY THIS YEAR
Chamittry

Quseion 4_12R

Tepe Pos i 381-381
Format:
F2T4_12R TANOHT PHYEICS FREQUENTLY THIS YEAR
Phyeico


Tepo Posi 382-382
Formati il

F2T4. 128 TAUGHT AP SCIEMCE FREQUENTLY THIS YEAR AP Seitence


Question $412 T$
Tape Pos, 383-383
F2T4_12T TAUCHT OTHER SCIENCE FREQUENTLY THIS YR
Other Seiance


Question din
Tepe Pos; 384-384
F2T4_12U TAUGHT COMPUTER SCI FREQUENTLY THIS YEAR
Computar Science


## Question $4=12 V$

Tepe Pos it 385-385
F2T4_12V TAUGHT OTH NON-MATH NOH-SCI FREQ THIS YR
Other non-acth, non-acience courae


Question 4_13

How meny undergreduete end greduete courase heve you teken

samsetar or querter. If you don't know piyise give your best cetimeta. IF TEACHIMG ANY MATH SURJECT INCLUDE ALL MATH COURZES. If TEACHIMS ANY SCIENCE SURUECT, INCLUDE ALL

## Question 4_13A

Tape Pos; 386-3E6
F2T4_IEA UNDERGRADUATF COUREES TAKEN IN BUSJECT
Underereduete Coureas



F2T4_138 GRADUATE COUFSES TAKEN IN SUEJECT
Graduete Courses

| RESPONSE | CODE8 | FREO | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NOHE. | 1 | 2040 | 13.08 | 23.84 |
| 1-4 COURESE | 2 | 1898 | 12.14 | 23.04 |
| 5-7 COUREES. | 3 | 1517 | 9.74 | 16.24 |
| 8 OR MORE CONRSE | 4 | 3390 | 21.c\% | 37.0* |
| RESERVED CODES: |  | 8542 | 37.2\% | (M185 |
| MULTIPLE RESP | 6 | 4 | $0.0 \%$ | (Miss) |
| MISSING. ..... | 8 | 1004 | 6. 4\% | (mis8) |
| TOTALS: |  | 18685 | 100.0\% | 100.0\% |
| Question 4.14 |  | $\begin{aligned} & \text { Tep: Pos it } 388-388 \\ & \text { Formeti } \end{aligned}$ |  |  |
| Quetion |  |  |  |  |

F2T4_14 HOW OFTEN TCHR FEELS SATISFIED WITH JOB
During the current (1991-92) sehool yeer, how often heve you falt setisficd with your teeching job?


Question

```
- 15
```

Didetther of the following eake plece within your tecking
this school yeer? this school yeer?

## Question 4_I8A

Tepe Poi ${ }^{\text {389-389 }}$
Formet:
F2TA_16A STARTED TO TEACH A NEW SUB,
Sterted to teach new oubject


Question 4_16C
Tope Pos Pormet $^{\text {393-393 }}$
Formet
F2TA_16C RECEIVED STIPEND(S) FOR IN-SERVICE EDUC Stipand (s)


F2TA_18B STARTED TO TEACH DIFFERENT ABILITY LEVEL Sterted to tech ediferent obility level of students


## Question 4_16

Heve you receivad any of the following types of support in the lest 12 months for in-service educetion th your mein Eubject arae(s)?

## Question 4_16A

Tope Pos; 39i-391
F2TA_16A RELEASSD FROM TEACHING FOR IN-SERVICE ED
Releesed time from teeching

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES............................. | 1 | 3642 | 23.2\% | 42.14 |
|  | 2 | 5291 | 33.7\% | 67.9\% |
| RESERYED CODES: <br> NO TEACHER QUEX. |  | 5842 | 37.2\% | (M1SS) |
| MISSING........ | 8 | 920 | B.8N | (MISS) |
| TOTALS: |  | 18695 | 100.0\% | 100.0\% |

Question 4_168

Tepe Pos $i_{1}^{\text {392-392 }}$
Formet:
F2TA_16B TRAVEL/PEU DIEM EXPENSES FOR IN-SRVC ED
Travel endfor per diem expenses


F2TA_16D PROFESSNAL GROTTH CREDITS FOR IN-SRV ED
Profeseional growth credit:


Question 4_17

Please indicete whether you heve perticipeted in ony of the following ectivities during this pest echool yeer.

## Question 4_17A

Tape Pos i 395-395
Formet:
F2TA_17A PART IN SCHL-SYSTM WORKSHP DURING SCH YR School-system sponeored workshops during school yeer

| REESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES | 1 | 8966 | 44.4\% | 77.74 |
| NO. | 2 | 1860 | 12.8\% | 22.34 |
| RESERVED CODES: <br> NO TEACHER QUEX. |  | 5842 | 37.24 | (M15S) |
| NULTIPLE RESPONSE | 6 | 3 | 0.0\% | (MISS) |
| Missing.......... | 8 | 924 | B.9\% | (M1s5) |
| TOTALS: |  | 18695 | 100.0\% | 100.0\% |

## Quention 4_178

Tape. Pos is 396-396
Format:
F2TA_17B PART IN SCHL-SYSTM WORKSHP DURING SUMAER
School-eystem sponsored workshops during sumer

Quettion A17C

Tape Poit ${ }^{\text {397-387 }}$
Formet:
F2TA_17C PART IN SCHOOL-wIDE CURRICULUM COMAITTEE
School-wide curriculum comititee

| RESPOHSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES | 1 | 3184 | 20.3\% | 36.7\% |
| HO. | 2 | 5742 | 36.6\% | 63.3\% |
| RESERVED CODE |  |  |  |  |
| NO TEACHER <br> MULTIPLE R | 6 | 5842 | $37.2 \%$ $0.0 \%$ | (MISS) |
| MISSING.... | 8 | 924 | 5.9\% | (mıSS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question. 4_170

Tape Pos i ${ }^{398-398}$
Format:
FRT4_17D PART IN DEPARTMENT CURRICULUM COMMITTEE
Depertment curriculum committeo

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES | 1 | 5118 | 32.6\% | 57.94 |
| HO. | 2 | 3811 | 24.3\% | 42.1\% |
| RESERVED CODE no teacher MISSING. | 8 | $\begin{array}{r} 5842 \\ 924 \end{array}$ | $\begin{array}{r} 37.2 W \\ 5.3 W \end{array}$ | $\begin{aligned} & \text { (MISS) } \\ & \text { (MISS) } \end{aligned}$ |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

Tope Pos it 399-399
Quertion 4_17E
Formit: if
F2T4_17E PART IN COMMITTEE WORK/SPCIRL ASSIGNMNT
Committea work or ipecial eseignment other then curriculum


Tipe Pon: 400-400
Formet: it
Question 4_17F

F2T4_17F PART IN UNIVERSITY EXTENSION COURSES
Univereity extension coures (non-credit beering)

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { wСT0 } \\ & \text { РCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES. | 1 | 867 | 5.5\% | 11.4W |
| H0. | 2 | 8061 | 61.4\% | 88.64 |
| RESERVED CODE NO TEACHER |  | 5842 | 37.2\% | (M15S) |
| HUTIPLERE | 6 | 1 | $0.0 \%$ | (MISS) |
| MISEIMC... | 3 | 224 | 6.9\% | (M135) |
| TOTALS: |  | 18895 | 100.0\% | 100.0\% |

## Question 4_17C

Tope Posi 101-401
Formati
F2T4_17G PART IN COLL COUAS IN EDUC DURIHG SCH YR
College courses in EDUCATION during echool yeer


Question 4_17H
Tepe Pot $i_{1} \mathrm{CO2-402}$
Formeti
F2T4_17H PART IN OTHR COLLG COURSE DURING SCHL YR
Coliege courses in subject fielde OTHER THAN EDUCATION during echool yetr


Quention A 171
Tape Pos 403-403
F2TA_17! PART IN COLL COURSE IN EDUC DURIMG SUMmin
College courses in EDUCATION during the amer


F2TA_17J PART IN OTHER COLLEG COUREE DURING SUMmR
College coursee th subjecte OTHER THAN EDUCATIOA during the summer


| Queition 4,17K |  | Yepe Pos. 4OB-405 Formet: 11 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2TA_17K PART IN PROFESSIONAL G-*VTH ACTIVITIES |  |  |  |  |
| Profesefonal growth ectivities aponsored by profeseionel eseciation(s) |  |  |  |  |
| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| YES. | 1 | $4780$ | 30. 8\% | B3.0. |
| HO. . | 2 | 4138 | $26.4 \%$ | $A 6.44$ |
| RESERVED CCOES: <br> NO TEACHER QUEX. . . . . . . . . . . . |  | 5842 | 37. 2\% | (14188) |
| MULTIPLE REEPONSE. | 6 | -1 | $0.0 \%$ | (M15S) |
| MISSIMG | 8 | 924 | 8.8 | (M18s) |
| TOTALE: |  | 18695 | 100.0n | 100.0\% |

Qustion 4_!
Tepe Poe: 406-406
F2TA_18 ATTENDED TEACHER ENRICIMENT PROGRANS
Toecher enrichment progreme can focus on meny different
opices such ey eleseroom techniques, edvances in technology, epplicetions of subjects, etci Hove you

| RESPOHSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES. | 1 | 8238 | .13.4\% | 69.8\% |
| N0. . | 2 | 3891 | 23.6\% | 40.2\% |
| RESERVED COOE NO TE.ACHER |  | 5842 | 37.2\% | (M185) |
| MULIPLE RE | 6 | 1 | 0.0\% | (M188) |
| missinc.... | 8 | 823 | 6.8\% | (Miss) |
| TOTALE! |  | 15858 | 100. CN | 100.0\% |

## Question 4 <br> Qustion 4.19

In the teacher enrichment progrems you ettended this yoer, were eny of the following topics dincussod?
Quontion 4

Tepe Pos: 407-407
Formet: if
F2TA_19A USES OF TECHNOLOGY DISCUSSED
Uses of technology

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES.......... | 1 | $4197$ | 26.74 | 80.4\% $19.6 \%$ |
| NO. | 2 | 1042 | 6.6M |  |
| RESERVED CHER QUEX. |  | 5842 | 37.24 | (MISS) |
| MISSING......... | 8 | 923 | 5.9\% | (MISS) |
| LEGITIMATE SKIP. | 9 | 3691 | 23.5\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question 4_19E

F2TA_19B APPLICATIONS OF SCI AND MATH DISCUSSED
Applicetions of science and math

| RESPONSE | COOES | FREQ | PER- | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES. | 1 | 3771 | 24.0\% | 73.74 |
| NC. | 2 | 1468 | 9.4\% | 26.3\% |
| RESERVED CODES: |  |  | 37.24 |  |
| NO TEAUHER QUE MISSING |  | 6842 923 | 37.2\% | (MISS) |
| LEGITIMATĖ SKip. | 9 | 3691 | 23.5\% | (MISS) |
| TOTALS: |  | 15696 | 100.0\% | 100.0\% |

Question 4_19C
Tepe Pos: 409-409
Formst: it
F2TA_19C STUDY OF A SPECIALIZED SUBJECT DISCUSSED
in-depth etudy of epectelized subject


Queition 4-180
Tape Pos: 410-410
Formet: 11
F2TA_180 STUDENT ABSESEMENT DISCUESED
student eoeseement



F2TA_19E CLASSROOM MANAGEMENT DISCUSSED
Cless room menepement



Tepe Posi 412-412
Formet: $1{ }^{\text {4-4 }}$
F2TA_IGF COOPERAT'VE LEARNING DISCUSSED
Cooperative leerning

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| YES. | 1 | 3189 | 20.3\% | 61.9\% |
| NO. ${ }^{\text {a }}$ : ${ }^{\text {a }}$ | 2 | 2050 | 13.1\% | 38.1\% |
| RESERVED CODES: |  | 5842 | 37.24 | (MISS) |
| Missing. . . . | 8 | 923 | 5.9M | (MISS) |
| LEGITIMATE S'Sikip | 9 | 3691 | 23.6M | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |


| Question a_19G | Tepo Pot: 413-413 |
| :--- | :--- |
| Formet: if |  |

F2T4_:9G HIGHER ORDER THINKING SKILLS DISCUSSED
Improving higher order thinking skilis


Queotion 40

During the enrichment progroms you ettended, how long did the coverege of onch of the following topict lest?

| question 4-20A | Fepe Poe it 414-414 |
| :--- | :--- |

F2TA_2OA EXTENT USES OF TECHNOLOGY DISCUSSED
Usea of Eechnology


| $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { PGTO } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: |
| 16.7\% |  |
| 6.74 | 21.04 |
| 4.0\% | 18.7\% |
| 0.0\% | $0.1 \%$ |
| 37.2\% | (MIs ${ }^{\text {d }}$ ) |
| 7.2\% | (Mise) |
| 30.2\% | (M1E8) |
| 100.0\% | 100.0\% |



Tope Pos $\mathrm{F}_{1}{ }^{\text {415-416 }}$
F2T4_2OB EXTENT APPLCTNS OF SCI ANO MATH DISCUSSD
Applicetions of science end meth


HOTE: Nonresponse for this item excesds the NCES etenderd, Due to potential nonresponse bies, ueses ehould exerciee feution when choosing this verioble for enelyeis.

Question 4_2OC
Tepe Pos i 416-416
Formet:
F2TA_2OC EXTENT STDY OF A SPECIZD SUB.JCT DISCUSSD
In-depth etudy of epeciolixed eubject


MOTE: Nonreaponse for this fiem exceeds the NCES etenderd. Due to petentiel nonresponse bies, ueprs should exercise ceution when choosing this veriebie for enelyete

## Question 4_200

Tepe Pos, 417-417
Formet: il
F2TA 200 EXTENT STUDENT ASSESSMENT DISCUSSED
student essestment


NOTE: Nonresponse for this item sexceeds the HCES stenderus.
Due to potentiol nonresponse bies, ueers shouldexercise
ceution when chooiing this verifobio for onalysit.

## Queition 4_20E

Tepe Pos; 418-418
F2TA_2OE EXTENT CLASSROOM MANAGEMENT DISCUSSED
Ciesser venegement


NOTE: Nonresponse for this itom excends the MCES btenderd
Dus to potential nonresponte bios, users should exercise
coution when choosing this verieble for enelysis.

| Question 4_20F |  | Tepe Pos. 418-419 Formet: 11 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| F2TA_2OF EXTENT COOPERATIVE | LEARNING | DISCusted |  |  |
| Cooparative learning |  |  |  |  |
| RESPOHSE | CODES | FREA | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WCTD } \\ & \text { PCT } \end{aligned}$ |
| 1 DAY OR LESS. | 1 | 1963 | 12. 5 \% | 65.0\% |
| 2-i DAYS.... | 2 | 683 | 4.44 | 23.7 M |
| 5 DAYS OR YORE. | 3 | 350 | 2.2\% | $11.3 \%$ |
| RESERVED CODES: |  |  |  |  |
| HO TEACHER QUEX. MISSING | 8 | 8842 1108 | 37.2\% | (M1\$3) |
| LEGITIMATE SKip. | 8 | 8741 | 36.8\% | (M135) |
| TOTALS: |  | 18695 | 100.0\% | 100.0\% |

NOTE: Nonresponee for this item exceedt the HCES stenderd. Due to potentiei nonrespone bies, ueere ehouldexerciee Dusto potentiel nonrespones biesi uetere thould ex

## Quertion 4_206

Tepe Pos: 420-420
F2TA_2OC EXTENT HIGHR ORDR THINK ZKILLS DISCUSSED
Improving higher order thinking ekilis


HOTE: Nenresponse for this itom exceuds the MCES etenderd.
Due to potentiol nonrespones bies users should oxercies
ceution when choosing this verioble for enelyeie.

## Question 4_21

Did your perticipetion in enrichment progrems hevenany of The following iffectson

Question 421A1
Tope Pos ${ }_{i}$ 421-421
Format:

## F2T421A1 USES OF TECH WERE NOT DISCUSSED

Uese of technology - wes not discuesed

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| DOES NOT APPLY. | 2 | 3936 | 25.1\% | 100.0\% |
| RESERYED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 5842 | $37.2 \%$ | (M1S5) |
| MISSING. ${ }_{\text {L }}$ | 8 | 1184 | 7.5\% | (M1SS) |
| LEGITIMATE SKip | 9 | 4733 | 30.2\% | (M15S) |
| TOTALS: |  | 16898 | 100.0\% | 100.0\% |



| Question $42 i 43$ | Tape Pos:423-423 |
| :--- | :--- |

F2T421A3 USE OF TECH CHFCD THINKING IN AREA
jese of tochnology - changad my thinking in thie aras


Question 421M4
TEpe Pos: 424-424 Formet: II

F2T421A4 USE OF TECH EMCOURAGED TCHR TO SEEK INFO
Ueas of technology - encoureged ma to eank further informetion on thie topic

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES. | 1 | 2119 | 13.5\% | 63.3\% |
| DOES NOT APPL | 2 | 1817 | 11.6\% | 46.7\% |
| RESERYED CODE |  |  |  |  |
| NO TEACHER |  | 5842 | 37.2\% | (M15S) |
| LEGITIMATĖ | 8 | 4733 | 30.2\% | (MISS) |
| TOTALS: |  | 18895 | 100.0\% | 100.0\% |

Question d2iA5

F2T421A5 - UEE OF TECH CHANGED TEACHING PRACTICES
Uees of technoiogy - chenged my teeching practices


Question 42181
Tope Pos i 426-426
Formet:
F2T421B1 APPL SCI A MATH WERE NOT DISCUSSED
Applications of ecionce end meth -- wee not diecuesed


HOTE: Nonresponse for this itamencesede the NCES etanderd. Dus to potential nonresponse bias, uiser should exerciea caution whan choosing this veriabla for analyaiz.

## Question 42182

Tepe Pos: 427-427
Format: il
F2T421B2 APPL SCI E MATH WERE HOT HELPFUL
Applications of ecience and maih - wes not haipful


NOTE: Nonresponse for this item asceade the HCES etenderd. Dum to potentiai nonrseponsa bine uners ehouldesercise caution whan choosing this verineble for enalyzis.

## Quettrn 42183

Tape Pot: 428-428
F2T42183 APPL SCI MATH CHANGD THINKMG IN AREA
Applicetione of ectence end meth - chenged my thiaking in

## thie oree



NOTE: Nonraspones for this itam exceede the NCES standerd
NOTE: Nonrasponee for this itamexcesde the NCES itanderd
caution when chooifig thig veriablafor enalyaí.

## Quetion 421BA

Tepe Pot: 428-429
F2T42184 APPL SCI \& MATH ENCOURGD TO SEEK INFO
Appiacetions of ecience and moth - encoureged me to sank
further informetion on thit topic


NOTE: Nonemepanee for this itam axceade the NCES etenderd
Dúto potentiai nonresponse tife. users should exisciea
caution whan eheosing this veriabie for analyeis.

| Question | 42185 | Tope Pos: 430-430 |
| :---: | :---: | :---: |
|  |  | Format: I1 |

F2T421B5 APPL SCI : MATH CHANGD TEACHINC PRACTICE
Appifcetions of scianca and math - chenged my teaching
prectices


HOTE: Nonresponse for :his item erceede the NCES etendero.

cation when choosing this variable for enelyele

## Quation 421C1

Tope Por in 431-431
F2TH2IC1 EPECIALIRED EUBNECT WAS WOT DISCUAEED
In-depth otuly of e opectolizad oubject - wat not diocuooed


HOTE: Monresponec for thts itam exceede the MCEs atenderd. Due to potentiel nonrespenas btee ueeri ahould oxerciea Due to potentiol nonrespones biegl uier ehoula a
ceution then ehoosing this vertable for enelyate.


F2TA2;C2 '3PECIALIZED SUEJECT WAS NOT HELPFUL
In-depth etudy of epecielized aubject - we net heipful

| RESPONSE | GODES | PREQ | $\begin{aligned} & \text { PER- } \\ & \text { CEMT } \end{aligned}$ | $\mathrm{YCT}^{\mathrm{OC}}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES. | 1 | 227 | 1.4\% | 13.0\% |
| DOES NOT APPLY | 2 | 1414 | -.0\% | $87.0 \%$ |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. |  | 1151 | 37.2\% | (miss) |
| MIBSING, | 9 | 7064 | 48.04 | (miss) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

NOTE: Nenresponse for this item excesde the NCES stenderd.
Due to potentisl nonresponie bies, ueera should exercise
Due to potentisi nonrespone biesi uespeshould ex

Question 421 C
Tape Pos: 433-433
F2TA2IC3 SPECIALIZD SBJCT CHANGED THINKNG IN AREA
In-dopth atudy of epecielized subject - chienged my thinking in this eres


NOTE: Nonresponse for this ttomexcesds the NCES itninderde
Dusta potentiel nonresponie bies users ihould exercise coution when choosing this veriable for enelyeli.

## Quastion 421 CA

Tepe Pot: 434-434
F2T421C4 SPECIALZD SBJCT ENCRGD TCHR TO SEEK INFO
In-depth otudy of epecielized subject - encoureged me to eeok further informetion on this topic

| RESPONSE | COOES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES.... | 1 | 757 | 4.8\% | 48.14 |
| DOES HOT' $\dot{\text { APPP }}$ | 2 | 881 | 5.6\% | $51.9 \%$ |
| RESERYED COOES: |  |  |  |  |
| NO TEACHER QUEX. |  | 1151 | 7.3\% | (Wiss) |
| MISSING | 8 9 | 1186 | $45^{\circ} .0 \%$ | (miss) |
|  |  | ----- | ----- |  |
| TOTALS: |  | 15685 | 100.0\% | 100.0\% |

NOTE: Nonresponse for this item excaeds the NCES atenderd.
Noter Notentiel nonresponse bies tiors should exerctie
Dueto potentiol nonrerponse bieate for onelysis.

Quastion 421C5
Tope Peo. $435-438$
Fermet: 11
F2T421CS sPECIALIZD SEJCT CHANED TBACHME MnNCTICE
In-copth otucy of opactaityed autujoct - chonged my tenching prectices


NOTE: Monrespenae for ehia tiem exceede tho MCEs etenderd.
Due to potentiel nonresponse bies, ueer ohould exercise
cuetion when ehoosing thit verieble for enelyofe.
Qusition $42101 \quad$ Tope Poei 436 -43s

F2TA21D1 STVDENT ASSERSNEMT WAS HOT DISCUSEED
student eeeestment - was not dier.uesed


NOTE: Nonresponit ior this item exceede the NCES etenderd.
Due to potentiel nonresponse bies, uegrs ihould exercise ctution when choosing this vaitibite for enelyete.

Question 42102
Tope Pos i
Formet: 147437
F2T421D2 STUDENT ASSESSMENT WAS NOT HELPFUL
Student esesement - wes not helpful

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES. | 1 | 541 | 3.4\% | 28.6\% |
|  | 2 | 1567 | 10.0\% | 74.4\% |
| RESERVED CODES: |  | 8842 | 37.2\% | (M18S) |
| MO TEACHER Q | 0 | 1153 | 7.3\% | (MISS) |
| LEGIYIMATĖ SKip | 9 | 6892 | $42.0 \%$ | (M133) |
| TOTALS: |  | 15698 | 100.0\% | 100.0\% |

NOTE: Nonresponee for this itam exceeds the NCES stenderd.
Due to potentiel nonresponse biespueri ihouldexercies
coution when choosing this verietble for enelyoit.

| Quetiton 42103 | Tepe Pos 438-430 |
| :--- | :--- |

F2TAR1DJ STUDENT ASSESSIMNT CHANGD THINKHG IN AREA
Student essessment - chenged my thinking in thiteree

| RESPONSE | CODES | FREQ | PERCENT | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES. | 1 | 789 | 4.8\% | 35.0\% |
| DOES MOT APPLY. | 2 | 1348 |  |  |
| RESERVED CODES: |  | 5842 | 37.2\% | (MISS) |
| NO TEACHER QUEX | 8 | 1153 | 7.3\% | (miss) |
| LEGITIMATE ${ }^{\text {S }}$ SXip | 8 | 6592 | $12.0 \%$ | (MISS) |
|  |  | 15695 | 100.04 | 100.0\% |

NOTE: Nonresponse for this item exceede the MCES stenderd.
Due to potentiol nonrenponse bias users ehould oxarciete ceution when choosing ifite verisble for enelyeis.


Question 42104
Tape Pos: 439-439

F2T421DA STUDNT ASSESBMNT ENCOURACD TO SEEK INFO
Student asessement - encouragsed me to sask further informetion on this topic


NOTE: Nonresponse for this item exceads the NSES etanderd. Dus to potential nonrasponsa bias, users ihould axircise caution when choosing this verisbie for onelysis.

Question $4210 \overline{5}$
Tepe Pos; 440-440
F2T421DG STUDNT ASSESSMHT CHANCD TEACHNG PRACTICE
Student eesesment - chenged my teaching precticet

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 284 | 1.8\% | 15.0\% |
| DOES NOT APPLY. | 2 | 1824 | 11.6\% | 85.0\% |
| RESERVED CODES: |  | 5842 | 37.2\% | (M1SS) |
| Missinc. ... | 8 | 1153 | 7.3\% | (miss) |
| LEGITIMATE S'SiP. | 8 | 6592 | 42.0\% | (miss) |
| TOTALS: |  | 18895 | 100.0\% | 100.0\% |

NOTE: Nonresponse for thit itameaceads thi NCES etenderd.
Due to potential nonresponse bias users ahould oxercise coution when choosing thit varisble for enelysis.

## Question 421E1

Tepe Poei 441-44i
Format; in
F2T421E1 CLASSROOM MANAGEMENT WAS HOT DISCUSSED
Cleseroom manegement - was not diecussed


NOTE: Nonresponse for this item exceede tho NCES etenderd.
Due to potentiel nonrexponse bies, users should exercise ceution when choosing this veriebie for enelysis.

## Question 421E

F2T421E2 CLASSROOM MANAGEMENT WAS NOT HELPFUL
Clessroom menogement - wes not helpfuif


NOTE: Nonresponse for this item excesds the NCES etanderd.
Dus to potentisi nonrespones biss users should exerciee
cultion when choosing thite vorisble for onelysis.

## Question $421 E 3$

Tape Pos: 443-443
F2T421E3 CLASSRM MANACNNT CHANGD THINKING IN AREA
Clessroom menegemont - changed my thinking in this area


NOTE: Nonreeponse for this ftem exceede the NCES etenderd. Due to poientimi nonresponse bies ueer: ehould exerciee calution when choosing this veriable for enalysis.

## Question 421E4

Tope Pos i 444-144
Formet
H2T421EA CLAESRM MANAGMNT ENCRGD TO SEEK INFO
Clessroom menegement - ancoureged me to seak further informetion on this topic

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | WGTD |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES. | 1 | 52 | 3.3\% | 26.3\% |
| DOES NOT APPLY. | 2 | 1333 | 8.8\% | 73.7\% |
| RESERVED CODES: |  | 58.42 | $37.2 \%$ | (MISS) |
| MISSINC... | 0 | 1130 | 7.2\% | (MISS) |
| LEGITIMATĖ ${ }^{\text {siki }}$ | 0 | 6888 | 43.84 | (mise) |
| TOTALS: |  | 18885 | 100.0\% | 100.0\% |

NOTE: Nonresponse for thit itomexceeds the NCEs stenderd.
Due to potential nonrespone bieat ueters ehould axereiee
ceution when choosing this verieble for enelyits.

Quetion 421E.
Tope Pos i $448-445$
Formet:
F2TA21ES CLASSRM MANACMNT CHANED TEACHNG FFANTICE
Cieseroom menegament - changed my teaching prectices


NOTE: Nonresponse for thit itam exteeds the NCES stendard
Due to potentisl nonresponee bies, usere should exereise
ceution when chooeing thie verieble for entyele.
question 421F1
Tape Poe; 446-448
F2TA2IF1 COOPERATIVE LEARNING WAS NOT DISCUS\&ED
Cooperetive learning - wes not discuesed

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { VGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| DOES HOT APPLY | 2 | 2948 | 18.8\% | 100.0\% |
| RESERVED CODES: |  |  |  |  |
| MO TEACHER QUEX............... |  |  | $37.2 \%$ | (M188) |
| Missing. | 8 | 1194 5741 | 36.8\% | (M185) |
| TOTALS: |  | 15808 | 100.0\% | 100.0\% |

NOTE: Nonresponse for tíns item exceeds the NCRS stendert.
Due o potentiol nonrasponee biss uegre should exerciee


Queplion

## 421F2

Tope Pos i 447-447
F2T421F2 COOPERATIVE LEARNING WAS NOT HELPFUL
Cooperetive leerning - wes not helpful


NOTE: Nonresponse for thts iten exeaeds the NCES stenderd. Due to potential nonrespenso bies, users should exercise coution when ehoosing this veriobio for oneiysis.

## Que:tion 421F3

Tope Fos; 448-448
F2TA21F3 COGPERTVE LEARNNG CHAGD THINKING IN AREA
Cooperetive leerning chenged my thinking in thizeree


NOTE: Nonresponse for this tiem exceeds the NCES Etenterd.
Due to potential nonresponio bies usprs should exerciee ceution when choosing this variable for onelysis.

## Question 421FA


F2TA21F4 COOPERATVE LEARNNG ENCRCD R TO SEEK INFO
Cooperetive leerning - encoureged me to eeok further informetion on thiz topic


NOTE: Nonresponse for this itam exceeds the NCES stenderd. Due to potentiol nonrespone bies, users should exercise ceution when choosing this verisbio for onolysis.


Question

## $421 F 5$


F2T421FG COOPRTVE LEARNNG CHANGD TEACHNG PRACTICE
Cooperetive leerning - chenged my teeching prectices


TOTALS:
HOTE: Nonresponsm for this item exceeds the NCES stenderd Due to potentiol nonresponse bies, users should exerctio cuetion when choosing this veriable for enalyais.

## Question 421G1

Tepe Pos in 481-481
Formet:
F2TA2IG1 HIGH OADER THINKIAG SKILLS MOT DISCUSSED
improving higher order thinking skiliz - wes not diseussed


MOTE: Nonresponse for this itemexceeds the NCES stenderd.
Due to potential nonresponse bies usere should oxerciae
coution when choosing this verisble for enelysis.

## Question 42162

Tepe Pos; A52-4E2
Forina: i 1
F2TA21G2 HIGH ORDER THINKING SKILLS HOT HELPFUL
Improving higher orfer thinking skilis - wee not heipiui


MOTE: Nonresponse for this item exceseds the NCES etanderd. Due to potentiol nonreaponse bles, uears ihould oxercise coution when chcosing ifis veristi. for sinelyeis.

Question 421G3
Tepe Pos i A53-453
Formet:
F2T421G3 HICH ORDER THINKING SKILLS CHHCD THINKNG
Improving higher order thinking skilis - ehenged my
thinking in this ores

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | 1 | 841 | 5.4\% | 28. 1\% |
| DOES NOT APPIY. | 2 | 2132 |  |  |
| RESERVED CODES: |  |  |  |  |
| NO TEACHER QUEX. MISSINC | 8 | 8842 1180 | 7.8\% | (Miss) |
| LEGITIMATE SKIP. | 9 | 6700 | 36.3\% | (miss) |
| TOTALS |  | 16695 | 100.0\% | 100.0\% |

TOTALS:
NOTE: Monresponso for this itom exceeds the NCES stenderd. Due to potantial nonresponse bies, usiors should axercies coution when ehoosing this variobic for onelysis.

| Question 421 GA | Tope Posit464-4EA |
| :--- | :--- |
| Formet: |  |

F2TA2sG4 HICH ORDER THNKNG SKLLS ENCRCD SEEK INFO
Improving higher order thinking akilis - encoureged me to seok further informetion on this topic


NOTE: Nonrssponse for this item exceseds the NCES stenderd.
Due to potential nonresponse bies, users should exercise
coution when choosing ifis verisbí for enelysis.

## Question

Tepe Poti 455-455
Formet: if
F2T421G5 HGH ORDR THNKNG SKLLS CHNGD TCHNG PRATCS
Improving higher order thinking ikilla - chenged my
toaching proctlcet

| RESPONSE | COOES | FAEQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \hline \text { PGT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| APPLIES | $t$ | 543 | 3.5\% | 17.3\% |
| DOES HOT APPLY | 2 | 2430 | 15.5* |  |
| RESERVED COOES: |  |  |  |  |
| NO TEACHER QUEX |  | 5842 1180 | 37.2\% | (MISS) |
| MISSING | 8 9 | 1180 5700 | 36.3\% | (MISS) |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

NOTE: Nonreaponte for thit ftem exceeds the HCES tenderd.
Due to potontial nonresponte ties, users ihould oxerctie

Question <_22
During the firat semester of the current achool yeer, how meriy deys of teaching did you mist for ony reason?


Queition 43
Tepe Pot i 460-46:
F2TA_23 EXTENT SUPERVISOR OBSERVED TCHR TEACHING
How ofteri did supervisor or officiel from your shool or ditirict formelly obierve your toeching during the firit comestar of the current school yesr?

| RESPONSE | CODES | FREQ | $\begin{aligned} & \text { PER- } \\ & \text { CENT } \end{aligned}$ | $\begin{aligned} & \text { WGTD } \\ & \text { PCT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| NOT ALLOWED TO OBSERVE. | 01 | 58 | 0.4\% | 0.8\% |
| NEVER....... | 02 | 3151 | 20.1\% | 35.4\% |
| ONE TIME ONLY. | 03 | 3290 | 21.0\% | 36.3\% |
| THO TO THREE TIMES $\alpha$ |  |  |  |  |
| SEMESTER/TERM. - - . | 04 | 2205 | 14.0\% | 25.2\% |
| AT LEAST OHCE A MONTH. | 05 | 172 | 1. ${ }^{14}$ | 1.9\% |
| AT LEAST ONCE A WEEK | 06 | 34 | 0.24 | 0.5\% |
| RESERVED CODES: <br> no teacher quex <br> MISSING. | 98 | 5842 943 | 37.24 | $\begin{array}{r} \text { ISS) } \\ \text { AISSS } \end{array}$ |
| TOTALS: |  | 15695 | 100.04 | 100.0\% |

## Quertion $4,23 M$

F2TA 23M DATE COMPLETED: MGNTH
Dete completed: month


## Question 4,230

Tope Pot: 464-465
Formet: i2
F2T4_230 DATE COMPLETED: DAY
Dete completed: day
RESPONSE CODES

AESERVED CIODES.
NO TEACHER QUEX $\qquad$

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|  |  | ---\% |  |  |
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|  | $\begin{aligned} & 01 \\ & 02 \end{aligned}$ | 397 366 | 2.8\% | $\begin{aligned} & 3.9 \% \\ & 3.64 \end{aligned}$ |
|  | 03 | 242 | 1.5\% | 3.64 |
|  | 04 | 174 | 1.14 | 1.84 |
|  | 05 | 173 | 1.14 | 1.9\% |
|  | 06 | 210 | 1.34 | 1.9\% |
|  | 07 | 209 | 1.3\% | 2.54 |
|  | 08 | 162 | 1.0\% | $2.0 \%$ |
|  | 09 | 160 | 1.0\% | 1.54 |
|  | 10 | 563 | 3.6\% | 5.54 |
|  | 11 | 656 | 4.2\% | 7.8\% |
|  | 12 | 447 | 2.54 | 4.9\% |
|  | 13 | 475 | 3.0\% | 5. 2 $^{\text {W }}$ |
|  | 14 | 475 | 3.0\% | 4.6\% |
|  | 15 | 216 | 1.4* | 2.1\% |
|  | 16 | 235 | \%.5\% | 2.4\% |
|  | 17 | 295 | 1.9\% | 3.5世 |
|  | 18 | 359 | 2.3\% | 3.9\% |
|  | 19 | 351 | 2.24 | 3.64 |
|  | 20 | 314 | $2.0 \%$ | 3.84 |
|  | 21 | 281 | 1.8\% | 3. 14 |
|  | 22 | 189 | 1.2\% | 1.84 |
|  | 23 | 156 | 1.0\% | 2.0\% |
|  | 24 | 326 | 2.14 | 3.54 |
|  | 25 | 271 | 1.7\% | 2.34 |
|  | 26 | 251 | 1.6\% | 2. $6 \%$ |
|  | 27 | 305 | 1.9\% | 2.94 |
|  | 28 | 268 | 1.7\% | 3. 1\% |
|  | 29 | 193 | 1.2\% | 2.14 |
|  | 30 | 246 | 1.64 | 3.0\% |
|  | 31 | 263 | 1.6\% | 2.6\% |
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Tepe Pos: 466-476 Formet: Rio. 4

| Quettion | F2CXTET | Tepe Pos. 466-476 Formet: RiO.4 |
| :---: | :---: | :---: |

F2CXTWT CONTEXTUAL DATA WEIGHT
Use for producing weighted tuclent contextuel component
statistics, in conjunction with either erossesectionil or longitudinal anelytes thet ito involve school edministrator andior teacher date.

| RESPONSE | CODES | FREQ | PERCENT | WGTD PCT |
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| 1.3799 TO 12025.0942. | 00 | 16695 | 100.04 | 100.0\% |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Question F2CXTFLC

Tape Pod ${ }^{\text {476-476 }}$
Formet :
F2CXTFLG SAMPLE MEMBER PART OF F2 CONTEXT SAMPLE
Indicetes thet eample mamber belongs to the contextual
component semple. Ues this variable for identifying
ample mambers who wareboth anrollad in an eligible contentatretor end teacher data, and who completed a second follow-up student quettionnaire.

| RESPONSE | CODES | FREQ | PERCENT | WGTD $\mathrm{OCT}$ |
| :---: | :---: | :---: | :---: | :---: |
| MEMBER OF CONTEXTUAL SAMPLE AND STUDENT QUEX COMPLETE. . | 1 | 15695 | 100.0\% | 100.0\% |
| TOTALS: |  | 15695 | 100.0\% | 100.0\% |

## Quetiton F2TEQFL.G

Tape Pos. 477-477

F2TEQFLG TEACHER QUESTIONNAIRE AVAILABLE
The taacher fils inctudes tudent participantz in the contextual tample regardiets of whether or not tho student received a teecher report. F2TEQFLG ellowt enelysts to eflect the students on the file for whom tacher deteare availabla.


F2FISCFL STUDENT ATTENDED SAME SCHOOL IN 1990/92
Indicates whather the student ettended the seme school during dete collection in the first follow-up and second follow-up. This flag doet not indicate that tha smal! but raturnad to the school by dete collection in the second follow-up were at the chool continuously.

NOTE: This vertoblo wes supprassed on the public date file
by NCES in ecc

## Appendix J

Glossary of NELS:88 Terms

## GLOSSARY OF NELS:88 TERMS

Note: Words in the glossary have been cross-referenced. If a word used in a definition has its own entry elsewhere in the glossary, the word appears in italics in its first usage under each entry.

Alternative completer: The NELS: 88 second follow-up distinguished three levels of enrollment status: students enrolled in a regular high school program, dropouts who had enrolled in (or had completed) some alternative (non-diploma) high school equivalency accrediting program (for example, preparation classes for the GED test), and dropouts receiving no alternative instruction. The term "alternative completer" was used for dropouts receiving any sort of instruction to prepare them for equivaiency certification, and for dropouts who had already received the GED or other equivalency certification. In terms of questionnaire completion, alternative completers were treated in two ways. Dropouts receiving alternative instruction in preparation for possible equivalency certification were administered the dropout questionnaire. Those dropouts who had received the GED or other high school equivalency certification were treated as school completers, and were administered the student questionnaire.

ASCII: American Standard Code for Information Interchange. A standard method for encoding characters; includes codes representing upper and lower case letters, numerals, and punctuation.

Augmentation students: See State augmentation students.
Base year ineligible (BYI) study: A NELS:88 First follow-up study which sought to locate and survey eligible respondents who were part of the Base Year sample, yet were ineligible to participate in the Base Year due to mental or physical incapacity, language barrier, or other factors. (See entry for "Followback study of excluded students.")

Bias (due to nonresponse): Difference that occurs when respondents differ as a group from nonrespondents on a characteristic being studied.

Bias (due to undercoverage): This bias arises because some portion of the potential sampling frame is missed or excluded. For example, if the school list from which a school sample is drawn is incomplete or inaccurate, school undercoverage may occur. In NELS: 88 the most important potential source of undercoverage bias was exclusion of 5.37 percent of the potential sample of eighth graders in the base year. (See entry for "Base year ineligible study" and "Followback study of excluded students.")

Bias (of an estimate): The difference between the expected value of a sample estimate and the corresponding true value for the population.

Burden: Formally, this is the aggregate hours realistically required for data providers to participate in. a data collection. Burden also has a subjective or psychological dimension: the degree to which providing information is regarded as onerous may depend on the salience to the respondent of tive questions that are being posed and in other factors such as competing time demands.

BY: NELS:88 Base Year Study conducted in 1988.
Carnegie units: A standard of measurement used for secondary education that represents the completion of a course that meets one period per day for one year.

CCD: Common Core of Data. Data annually collected from all public schools in the United States by the National Center for Education Statistics.

CD-ROM: Compact Disk Read-Only Memory. A computer storage disk in the same physical form as an audio CD. A CD-ROM can store approximately 650 megabytes of digital data. NELS:88 data are available both in magnetic media, such as tapes, as well as in optical laser disc media, such as CD-ROM.

Ceiling effect: The result of a cognitive test having insufficient numbers of the more difficult items. In a longitudinal study, ceiling effects in the follow-up testings can cause change scores to be artificially constrained for high ability examiness. More information (that is, smaller error of measurement) is obtained with respect to ability level if high ability individuals receive relatively harder items (and if low ability individuals receive proportionately easier items). The matching of item difficulty to a person's ability level yields increased reliability at the extremes of the score distribution where it is most needed for studies of longitudinal change. That is, the measurement problems related to floor and ceiling effects in combination with regression effects found at the extreme score ranges seriously hamper the accuracy of change measures in longitudinal studies. Hence one strategy employed in NELS:88 to minimize ceiling effects was to develop test forms that are "adaptive" to the ability level of the examinee. The multilevel tests used in the first and second follow-ups of NELS:88-with test assignment based on prior test performance--work to minimize the possibility of ceiling effects biasing the estimates of the score gains. (See entry for "Floor effect.")

Certainty school: A first or second follow-up school attended by four or more NELS:88 sample members, as determined by tracing and data collection efforts. These schools are included in the sample with certainty (probability $=1$ ). All NELS: 88 first follow-up sample members in the school at the time of data collection were included in the second follow-up.

Closed-ended: A type of question in which the data provider's responses are limited to given alternatives as opposed to an open-ended question. (See entry for "Open-ended.")

Cluster size: The number of NELS:88 sample members attending a particular high school.
Codebook: A record of each variable being measured, including variable name, columns cccupied by each variable in the data matrix, values used to define each variable, unweighted frequencies, unweighted percents, and weighted valid percents. (See entry for "electronic codebook.")

Cognitive test battery: One of the two parts of the Student Survey (the second part being the student questionnaire). Four achievement areas (mathematics, reading, science, and social studies [history/ citizenship/geography]) were measured.

Cohort: A group of individuals who have a statistical factor in common, for example, year of birth or grade in school or year of high school graduation. NELS:88 embraces three overlapping but distinct nationally-representative grade cohorts: 1987-88 eighth graders, 1989-90 high school sophomores, and 1991-92 high school seniors.

Composite variables: A composite variabl/ is one that is constructed through either the combination of two or more variables (socioeconomic status, for example) or calculated through the application of a mathematical function to a variable. Also called a "derived variable" or "constructed variable."

Confidence interval: A sample-based estimate expressed as an interval or range of values within which the true population value is expected to be located (with a specified degree of confidence).

Contextual data: In NELS:88, the primary unit of analysis is the student (or dropout), and information from the other study components, referred to as the contextual data, should be viewed as extensions of the student data-for example, as schcol administrator, teacher, and parent reports on the student's school learning environment or home situation.

Core school: School that was selected between Phases 1 and 2 of the second follow-up to receive the full complement (School Administrator, Teacher, Transcript) of study components, and for in-school data collection sessions.

Core student: Students who are part of the primary cohort of NELS:88, in contrast to state augmentation or School Effectiveness Study students. The core students include those chosen as eighth graders in the 1988 Base Year Study and those added to the sample through freshening procedures during the first or second follow-up.

Core study: The original NELS: 88 study, in contrast to the study with additions and follow-up additions like the state atos mentation studies and the School Effectiveness Study.

Course offerings: School-level summaries of courses offered and of course enrollment levels; while in HS\&B course offerings data were collected for all schools, in NELS:88 such data have been collected only for schools in the School Effectiveness Study.

Cross-sectional survey: A cross-sectional design represents events and statuses at a single point in time. For example, a cross-sectional survey may measure the cumulative educational attainment (achievements, attitudes, statuses) of students at a particular stage of schooling (for example, eighth grade, tenth grade, or twelfth grade). In contrast, a longitudinal (or repeated measurement of the same sample units) survey measures the change or growth in educational attainments that occurs over a particular period of schooling. The longitudinal design of NELS:88 generates-by means of sample "freshening"--three representative cross-sections (eighth graders in 1988, high school sophomores in 1990, seniors in 1992) and permits analysis of individual level change over time through longitudinal analysis and of group level and intercohort change through the cross-sectional comparisons. (See entry for "Longitudinal or Panel Survey.")

Data element: The most basic unit of information. In data proressing it is the fundamental data stiructure. It is defined by its size (in characters) and data type (e.g. alphanumeric, numeric only, true/false, date) and may include a specific set of values or range of values.

Design effect: A measure of sample efficiency. The design effect (DEFF) is the variance of an estimate divided by the variance of the estimate that would have occurred if a sample of the same size had been selected using simple random sampling. Sometimes it is more usetul to work with standard errors than with variances. The root design effect (DEFT) expresses the relation between the actual standard error of an estimate and the standard error of the corresponding estimates from a simple random sample.

Dropout: The term is used both to describe an event--leaving school before graduating-and a status--an individual who is not in school and is not a graduate at a defined point in time. The "cohort dropout rate" in NELS: 88 is based on measurement of enrollment status of 1988 eighth graders two and four years later (that is, in the spring term of 1990 and the spring term of 1992) and of 1990 sophomores two years later.

A respondent who has not graduated from high schon！or attained an equivalency certificate and who has not attended high school for 20 consecutive days（not counting any excused absences）is considered to be a dropout．In contrast，transferring schools－－for example，from a public to a private school－is not regarded as a dropout event，nor is delayed graduation（as when ：student is continuously enrolled but takes an additional year to complete school）．A person who drops out of school may later return and graduate：at the time the person left school initially，he or she is called a＂dropout，＂and at the time the person returns to school，he or she is called a＂stopout．＂

Early graduate：A student who graduated from high school in less than the typical amount of time．For example，if a student graduated in December of his／her senior year（when the majority of his／her classmates graduate the following May or June），the student is categorized as an early graduate．In the main study data collection，early graduates were administered a special supplement in the student questionnaire along with the cognitive test battery．

Electronic codebook（ECB）：While hardcopy codebooks with item stems，response categories，associated response frequency distributions，unweighted percents，and weighted valid percents are contained within the NELS：88 user＇s manuals，NELS：88 data are also available on CD－ROM in an electronic codebook （ECB）format．For example，the electronic codebook created for the combined base year first follow－up NELS：88 data is a menu－driven system that allows users to perform functions such as the following：（a） search a list of NELS：88 BY－Fl database variables based upon key words or variable names／labels；（b） display weighted and unweighted percentages for each variable in the database；（c）display question text for each variable in the database；（d）select or tag variables for subsequent analysis；（e）generate S．AS－PC or SPSS－PC＋program code／command statements for subsequently constructing a system file of the selected variables；and（f）generate a codebook of the selected variables．An electronic codebook is also being prepared for the NELS：88 second follow－up data，and will again be housed on a CD－ROM．

ETS：Educational Testing Service．NORC＇s subcontractor for NELS：88 cognitive test development and evaluation．

F1：The NELS：88 first follow－up，conducted in 1990.
F2：The NELS：88 second follow－up，conducted in 1992.
File：Refers to a data file containing a set of related computerized records．
Floor effect：The result of a cognitive test being too difficult for a large number of the examinees， causing the low ability examinees to receive chance scores on the first testing，and on subsequent testings if the test remains too difficult．Floor effects result in an inability to discriminate among low ability individuals at time one or time two，and there will be no reliable discrimination among examinees with respect to amounts of change．A possible solution，utilized in NELS：88，is to develop test forms that are ＂adaptive＂to the ability level of the examinee，which tends to minimize the possibility of floor effects biasing the estimates of the score gains．

Followback study of excluded students：A continuation in the NELS：88 second follow－up of a special substudy begun in the first follow－up as（see entry for）the base year ineligibles study．

Freshening：A NELS：88 sampling procedure by which high school sophomores were added in the first follow－up who were not in the eighth grade in the U．S．two years before．This process was repeated in the second follow－up，adding high schöol seniors who were not in the eighth grade in the U．S．four years
before, and not in the tenth grade in the U.S. two years before. This process ensured that the sample would be representative of the 1992 senior class by allowing 1992 seniors who did not have a chance for selection into the base year (or the first follow-up) sample to have some probability of 1992 selection. GED recipient: A person who has obtained certification of high school equivalency by meeting state requirements and passing an approved exam, which is intended to provide an appraisal of the person's achievement or performance in the broad subject matter areas usually required for high school graduation. (See entry for "GED test" and "Alternative completer.")

GED test: General Educational Development test. A test administered by the American Council on Education as the basis for awarding a high school equivalent certification.

HS\&B: High School and Beyond. The second in the series of longitudinal education studies sponsored by NCES. The HS\&B Base Year study surveyed sophomore and senior students in 1980.

IEP: Individualized Education Program in special education ior students with a mental or physical disability.

IRT: Item Response Theory. A method of estimating achievement level by considering the pattern of right, wrong, and omitted responses on all items administered to an individual student. Rather than merely counting right and wrong responses, the IRT procedure also considers characteristics of each of the test items, such as their difficulty, and the likelihood that they could be guessed correctly by lowability individuals. IRT scores are less likely than simple number-right or formula scores to be distorted by correct guesses on difficult items if a student's response vector also contains incorrect answers to easier questions. Another atitibute of IRT that makes it useful for NELS:88 is the calibration of item parameters for all items administered to all students. This makes it possible to obtain scores on the same scale for students who took harder or easier forms of the test. IRT also permits vertical scaling of the three grade levels (grade 8 in 1988, grade 10 in 1990, grade 12 in 1992).

Item nonresponse: The amount of nissing information when a valid response to an item or variable was expected. (See entry for "Unit-nonresponise.")

LEP: Limited English Proficient. A concept developed to assist in identifying those language-minority students (individuals from non-English language backgrounds) who need language assistance services, in their own language or in English, in the schools. (See entries for "NEP" and "LM.") The Bilingual Education Act, reauthorized in 1988 (PL 100-297), describes a limited English proficient student as one who:

1) meets one or more of the following conditions:
a) the student was born outside of the United States or the student's native language is not English;
b) the student comes from an environment where a language other than English is dominant; or
c) the student is American Indian or Alaskan Native and comes from an environment where a language other than English has had a significant impact on his/her level of English language proficiency; and
2) has sufficient difficulty speaking, reading, writing, or understanding the English language to deny him or her the opportunity to learn successfuily in English-only classrooms.

LM: Language Minority. A fully English proficient student in whose home a non-English language is typically spoken. This groups includes students whose English is fluent enough to benefit from instruction in academic subjects offered in English.

Longitudinal or panel survey: In a longitudinal design, similar measurements-of the same sample of individuals, institutions, households or of some other defined unit-are taken at multiple time points. NELS: 88 employs a longitudinal design that follows the same individuals over time, and permits the analysis of individuai-level change. (See entry for "Cross-sectional survey.")

Machine editing: Also called forced data cleaning or logical editing. Uses computerized instructions in the data cleaning program that ensure common sense consistency within and across the responses from a data provider.

Microdata (microrecords): Observations of individual sample members, such as those contained on the NELS: 88 data files.

MSA: Metropolitan statistical area. A large population nucleus and the nearby communities which have a high degree of economic and social integration with that nucleus. Each MSA consists of one or more entire counties (or county equivalents) that meet specified standards pertaining to population, commuting ties, and metropolitan character. (However, in New England, towns and cities, rather than counties, are the basic units.) MSAs are designated by the Office of Management and Budget (OMB). An MSA includes a city and, generally, its entire urban area and the remainder of the county or counties in which the urban area is located. A MSA also includes such additional outlying counties which meet specified criteria relating to metropolitan character and level of community of workers into the central city or countics.

Multidimensional raking: An adjustment procedure in weighting whereby the sum of the weights for each marginal category of respondents in the follow-up rounds of NELS:88 was made equal to the corresponding sum of the final prior round weights for that group.

NAEP: The National Assessment of Educational Progress.
NAIS: The Nationai Association of Independent Schools. This organization enoorsed NELS:88. NAIS schools form a base year school sampling stratum in NELS:88, and NAIS constitutes a category within the restricted use file school control type variahle.

NCEA: The National Catholic Educational Association. This organization endorsed NELS:88.
NCES: The National Center for Education Statist .s, Office of Educational Research and Improvement, of the U.S. Department of Education. This governmental agency is the primary sponsor of NELS:88, and is also the sponsoring agency for (among other studies) $N A E P, H S \& B$, and $N L S-72$.

NELS:88: The National Education Longitudinal Study of 1988. Third in the series of longitudinal education studies sponsored by NCES. The study began in 1988 with the eighth-grade class of that year. The study has collected data in 1988, 1990, and 1992 on student's school experiences, as well as background information from school administrators, teachers and parents (in the base year and second follow-up only). The study seeks to learn about students' educational experiences and outcomes from eighth grade through high school and beyond.

NEP: No English Proficiency. A student who does not speak English. (See entry for "LEP.")
NLS-72: The National Longitudinal Study of the High School Class of 1972. This project was the first in the series of longitudinal education studies sponsored by NCES.
Noncertainty schools: Schools in which fewer than four (three, two or one) NELS:88 students attended. These schools were not subsampled for participation in the School Administrator, Teacher, and Transcript components. Additionally, the survey instruments were not administered in group sessions in the schools, as was done in the certainty schools.

Nonresponse: (See entry for "Item nonresponse" and "Unit nonresponse.")
Nonsampling error: An error in sample estimates that cannot be attributed to sampling fluctuations. Such errors may arise from many sources including imperfect implementation of sampling procedures, differential unit or item nonresponse across subgroups, bias in estimation, or errors in observation and recording.

NORC: The National Opinion Research Center at The University of Chicago. NORC conducts NELS:88 for the National Center for Education Statistics.

NSF: The National Science Foundation, which is one of the sponsors of NELS:88. The National Science Foundation awards grants and contracts to individuals and organizations to conduct research. NSF sponsored two components of the second follow-up: 1) additions to the student questionnaire to learn about students' experiences and their exposure to mathematics and science curricula, and 2) a teacher survey of mathematics and science teachers to obtain evaluations of their NELS:88 student(s) and to learn about their classroom practices and background preparation for teaching.

OBEMLA: The Office of Bilingual Education and Minority Languages Aftairs, U.S. Department of Education. OBEMLA funded a NELS: 88 supplement that inquired into the education experiences of students whose native language is other than English.

OMB: The Office of Management and Budget, U.S. Executive Branch. OMB is a federal agency with the responsibility for reviewing all studies funded by executive branch agencies. OMB reviewed, commented on, and approved the NE:S:88 questionnaires, as indicated by their approval number and its expiration date in the top right corner of the questionnaire covers.

Open-ended: A type of question in which the data provider's responses are not limited to given alternatives.

Optical disk: A disk that is read optically (e.g., by laser technology), rather than magnetically. (See entry for "CD-ROM.")

Optical scanning: A system of recording responses that transfers responses into machine-readable data through optical mark reading. This method of data capture was used for the NELS: 88 student questionnaires and cognitive tests, as well as for the parent and teacher questionnaires. (In contrast, responses to certain other questionnaires, such as the school administrator questionnaire, were keyed by using conventional data entry methods.)

Out-of-sequence: This term means that a student is not in the grade that he/she would be in if progressing with the majority of the cohort through school. For example, most NELS:88 sample
members were in the tenth grade in the 1989-90 school year; one would be described as out-of-sequence if found to be in the eleventh grade in the 1989-90 school year.

Parent, NELS-targeted parent/guardian: The NELS: 88 Parent Component sought to collect information from parents of eligible student/dropout respondents. It was asked that the parent or guardian who knew most about his or her child's educational experience complete the questionnaire.

PIN: Personal Identification Number. A unique number assigned to each district and school.
Population: All individuals in the group to which conclusions from a data collection activity are to be applied. Weighted results of NELS:88 data provide estimates for populations and subgroups.

Population variance: A measure of dispersion defined as the average of the squared deviations between the observed values of the elements of a population or sample and the population mean of those values.

Postsecondary education: The provision of formal instructional programs with a curriculum designed primarily for students who have completed the requirements for a high school diploma or equivalent. This includes programs of an academic, vocational, and continuing professional education purpose, and excludes avocational and adult basic education programs.

Poststratification adjustment: A weight adjustment that forces survey estimates to match independent population totals within selected poststrata (adjustment cells).

Precision: The difference between a sample-based estimate and its expected value. Precision is measured by the sampling error (or standard error) of an estimate.

Probability sample: A sample selected by a method such that each unit has a fixed and determined probability of selection.

QED: Quality Education Data. QED is a commercial firm that publishes national directories of all public and private schools and districts. Its list of schools in the U.S. constituted the sampling frame for the base year, and provided important information on school location, principal's name, minority enrollment, and other characteristics.

Range check: A determination of whether responses fall within a predetermined set of acceptable values.
Record format: The layout of the information contained in a data record (includes the name, type, and size of eack field in the record).

Records: A logical grouping of data elements within a file upon which a computer program acts.
Reliability: The consistency in results of a test or measurement including the tendency of the test or measurement to produce the same results when applied twice to some entity or attribute believed not to have changed in the interval between measurements.

Sample: Subgroup selected from the entire population.
Sampling error: The part of the difference between a value for an entire population and an estimate of that value derived frem a probability sample that results from observing only a sample of value.

Sampling variance: A measure of dispersion of values of a statistic that would occur if the survey were repeated a large number of times using the same sample design, instrument and data collection methodology. The square root of the sampling varian $e$ is the standard error.

School administrator questionnaire: This questionnaire was to be completed by the principal and/or someone designated by the principal. The questionnaire sought basic information about school policies, number of students in each class, curriculum offered, programs for disadvantaged and disabled students, and other school characteristics.

School climate: The social system and culture of the school, including the organizational structure of the school and values and expectations within it.

School Coordinator: A person designated in each school to act as a contact person between the school and NORC. This person assisted with establishing a survey day in the school, and in some cases where the school cluster size was very small, the School Coordinator administered the student instruments.

School Effectiveness Study: A component of NELS:88 added to the first follow-up to permit the study of school effects. The supplement substantially increased cluster sizes and provided in-school representative student samples at approximately 250 urban and suburban schools in the thirty largest MSAs in order to permit researchers to assess the impact of various school characteristics (such as structural and management characteristics and school climate) on student outcomes (such as student achievement and educational experience). This component was continued in the second follow-up, and included student, school administrator, teacher, and parent questionnaires, transcript surveys, as well as a course offerings component.

Standard deviation: The most widely used measure of dispersion of a frequency distribution. It is equal to the positive square root of the population variance.

Standard error: The positive square root of the sampling variance. It is a measure of the dispersion of the sampling distribution of a statistic. Standard errors are used to establish confidence intervals for the statistics being analyzed.

State augmentation students: In the base year, certain states funded a sample of additional schools in the state to produce a representative sample of schools in the state. In this sense, the state's sample was "augmented" to maximize the utility of the NELS: 88 data for those states. The students from those base year schools were designated as "augmentation" students, and were follnwed and surveyed in the first follow-up, though the students had dispersed to many tenth-grade schools. In the second follow-up these students were rveyed again.

Stopout: A student who had one or more occurrences of school non-attendance for 20 or more days (not including any excused absences) who subsequently returned to school. In NELS:88, this term was used for temporary dropouts win a round (e.g., out of school in fall 1989 but back spring 1990, as contrasted to 1990 dropouts who were back in school in spring term of 1992).

Student questionnaire: One of the two parts of the student survey (the other part is the cognitive test battery). This instrument contained a locator section for tracing sample members for future waves of NELS:88 and a series of questions about courses taken, hours spent on homework, and perceptions of the school and the home environment.

Survey day: A day chosen by the school during the data collection period when an NORC interviewer and a clerical assistant (or the School Coordinator in schools with only a small group of sample members) administered the survey to the school's sample of students. The survey day session lasted about three hours for the actual data collection, with about thirty minutes each for preparation and cleanup/preparation of completed materials for mail!ng.

Teacher questionnaire: Math and science teachers of selected students were asked to complete a teacher questionnaire, which collected data on school and teacher characteristics (including teacher qualifications and experience), evaluations of student performance, and classroom teaching practices.

Teacher, NELS-targeted teacher sample: In the base year and first follow-up, two teacher reports were sought for each student, reflecting a combination of two subjects from four subject areas (English, social studies, science, mathematics). In the second follow-up, one teacher report per pupil was sought for those students who were enrolled mathematics, science, or both, in one of the schools designated for school contextual data collection.

Tracing: The locating (and ascertaining of school enrollment status) of NELS:88 sample members. Sample members were traced at six points in time subsequent to eighth grade: autumn term 1988, autumn term 1989, spring term 1990, autumn term 1990, autumn term 1991, and spring term 1992.

Transfer student: A NELS:88 sample member who moved from one school to another after the subsampling of schools between Phase 1 (the tracing of sample members to their school of enrollment) and Phase 2 (the re-verification of sample members' school of enrollment).

Unit nonresponse: Failure of a survey unit (for example, at the institutional level, a school, or at the individual level, a respondent, such as a student or a teacher) to cooperate or complete survey instrument. Unit nonresponse may be contrasted to item rionresponse, which is the failure of a participating sample mernber to give à valid response to a particular question on a survey instrument.

Validity: The capacity of an item or measuring instrument to measure what it was designed to measure; stated most often in terms of the correlation between scores in the instrument and measures of performance on some external criterion. Reliability, on the other hand, refers to consistency of measurement over time. (See entry for "keliability.")

Variance: See entry for "Population variance" and "Sampling variance."
Weighted estimates: Estimates from a sample survey in which the sample data are statistically weighted (multiplied) by factors reflecting the sample design. The weights (referred to as sampling weights) are typically equal to the reciprocals of the overall selection probabilities, multiplied by a nonresponse or poststratification adjustment. Thus, for example, the 1,035 completed school administrator questionnaires in the NELS: 88 base year represent a population of 38,774 schools. Individual completed cases (that is, base year school administrator questionnaires) may "represent" anywhere from a minimum of 1.5 schools to a maximum of 387.3 schools. To take another example, 12,111 base year questionnaire respondents reported themselves to be male, and a slightly greater number $(12,244)$ reported themselves to be female. When these cases are multiplied by the nonresponse-adjusted student weights to yield a weighted percent that reflects the national population of eighth graders, the estimate for males is 50.1 percent of the 1988 eighth-grade cohort while females are estimated to comprise 49.9 percent of the nation's 1988 eighth graders.


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    $\therefore$ Reproductions supplied by EDRS are the best that car be made r
    x Erom the original document.
    大

[^1]:    Steven J. Ingels
    Lisa Thalji
    Paul Pulliam
    Virginia H. Bartot Martin R. Frankel

    National Opinion Research Center (NORC) at the University of Chicago

[^2]:    ' Note, however, that the HS\&B 1980 sophomore cohort in 1982 does not strictly constitute a representative sample of the nation's 1982 seniors, but rather a representative sample of 1980 sophomores two years later. Because of the sample freshening that took place in NELS:88 (but not in HS\&B), the subset of NELS:88 sample members who were high school seniors in the spring of 1992 are nationally representative of seniors and are comparable to the NLS-72 and HS\&B 1980 probability samples of twelfth graders.

    2 The process referred to here as freshening added students who were not in the base year sampling frame, either because they were not in the country or because they were not in eighth grade in the spring term of 1988. The 1990 freshening process provided a representative sample of students errolled in tenth grade in the spring of 1990. The 1992 freshening process provided a representative sample of students enrolled in twelfth grade in the spring of 1992.

[^3]:    3 Sample freshening in the first follow-up ensured the existence of a nationally representative sophomore cohort as well. All 1990 tenth graders have been retained in the 1992 sample.

[^4]:    4 The sample size of 26,435 cited in the NELS: 88 Base Year Student Component Data File User's Manual is a typographical error.
    © Spencer, B.D.; Frankel, M.R.; Ingels, S.J.; Rasinski, K.A.; Tourangeau, R.E. August 1990; NCES 90-463. ERIC ED 325-502.

    - This includes students who were base-year nonrespondents as well as approximately 2,400 sample members sponsored by the U.S. Department of Education's Office of Bilingual Education and Mincrity Languages Affairs (OBEMLA).

[^5]:    12 Ingels, S.J.; Scott, L.A.; Lindmark, J.T.; Frankel, M.R.; Myers, S.L. April 1992; NCES 92-030, 92-083, 92-084, 93-085 (ERIC ED 347-780).
    ${ }^{13}$ Ingels S.J., Scott L.A., Rock D., Pollack J., Rasinski K.; Chicago: NORC, 1993; Washington D.C.: NCES, 1994.

[^6]:    1 In the original design of the NEI.S:88 second follow-up, the teacher survey was included as an optional component of the study. Funding for the option was not received in time for i:s inclusion in the second follow-up field test.
    ${ }^{2}$ Dowd, K. et al.; v. 1; 1991; Chicago: NORC. ERIC ED 335-418.

[^7]:    ${ }^{3}$ Eight dropouts and 41 students completed the Spanish-language questionnaire in the NELS:88 second follow-up. Because of the small number of questionnaires completed in Spanish, a separate flag was not created for these cases. The percentage of questionnaires completed in Spanish--around 0.2 percent--is similar to the percentage of HS\&B seniors who opted to complete Spanish-language questionnaires in 1980/1982.

[^8]:    4 Rock, D.A., and Pollack, J.M. April 1991.

[^9]:    1 The 348 dropouts comprise 250 dropouts whose status was confirmed by the student's home, 58 sample members whom the school reported to have dropped out but field interviewers could not locate, and 40 students who were institutionalized. The latter group are not necessarily dropouts in strict sense of the first follow-up dropout definition because in some cases they were receiving academic instruction. However, they were grouped with the dropouts to ensure that they would remain in the first follow-up sample with certainty.

    2 When the school a student was attending could not be identified, a separate "school" of size one was created. This was the case for 221 students who could not be located and ten students who were in home study. Hence, the number of actual schools was 3,736 .

    3 The measure of efficiency was computed as $1 /(1+R V)$ * $100 \%$, where $R V$ is the relative variance of the weights required to compensate for the different rates of subsampling.

[^10]:    s Only those freshened sample members who remained in school through the spring term became members of the HS\&B-comparable NELS:88 sophomore cohort. However, autumn sophomores who had dropped out by spring were surveyed in both the first and second follow-ups. While these "freshened dropouts" were included on the original first follow-up public release, in the current re-release these cases appear only on the privileged use files.

[^11]:    - Due to unit nonresponse and because 4,834 students vere not enrolled in either a mathematics or science class in the 1991-1992 academic year, not all of the 1,374 contextual schools have teachers and students who were included in the second follow-up teacher survey or who are represented on the public use teacher file.

    7 These selection criteria mean that if a student's fall term teacher was to be selected but the student was not enrolled in mathematics or science in the fall, then a teacher report was not collected for the student. Conversely, if the student's spring term teacher was to be selected for the teacher survey, but the student was not enrolled in either subject in the spring term, then a teacher report was not collected for the student. F2TEQFLG $=0$ for these students on the public use teacher data file.

[^12]:    - Alt. Completer = Alternative Completer or Alternative Student
    ${ }^{5}$ The 15,695 student records on the teacher public use data file includes 9,853 participants and 1,008 nonparticipants. This column also includes 4,834 students who were not enrolled in a mathematics or science class, and therefore were not included in the teacher survey.

[^13]:    - Researchers should exercise caution when employing the contextual weight, F2CXTWT, in a panel analysis. In particular, they should carefuliy assess bias relative to the subpopulations of interest and their specific analytic goals. It may also be desirable to compare resulis obtained from alternative weighting "approximations" (e.g., for 1988-1992, F2TRP1WT) to determine which provides the best result.

[^14]:    s Included in the transcript data files are approximately 90 students who were ineligible in all three rounds of NELS:88 and were seniors in 1992.

[^15]:    11 Frankel, M.R., Inference from Survey Samples: An Empirical Investigation (Ann Arbor: Institute for Social Research, 1971).

[^16]:    12 For a more detailed presentation of design effects for individual items for the total sample and for various subsamples, see the NELS:88 Base Year Sample Design Report. For tables of base year parent and school administrator questionnaire data standard errors and design effects, see the respective base year data file user's manuals, or the sample design report.
    ${ }^{13}$ For a more detailed presentation of the first follow-up design effects for individual items for the total sample and for various subsamples, see the NELS:88 First Follow-Up: Student Component Data File User's Manual.

[^17]:    14 Groves, R. M., Survey Errors and Survey Cosis. New York: John Wiley and Sons, 1989, page 11.

[^18]:    'Standard error calculated taking into account the sample design.
    ${ }^{\text {b }}$ Standard error calculated under assumptions of simple random sampling.

[^19]:    - Sex categories are based on the composite sex variable.
    b Race categories are based on the composite race variable.
    Note: Each mean is based on 30 items, including four cognitive test items.

[^20]:    1 Note however that the sample of reclassified Base Year Inwligibles (i.e., those found to be eligible in the first follow-up and second follow-up rounds) had not been released for analyses pior to the second
    follow-up.

[^21]:    2
    Four student statistical weights have been created in the second follow-up (a parent survey weight and
    three transcript weights have also been created).

[^22]:    4 Aralysts who are employing variance estimation software should note that the student ID reflects the NELS:88 sampling plan in the following way: the left-most two digits of the ID represent the stratum identification number for the case; the middle three digits are the primary sampling unit (PSU) for the school; and the last two digits identify the student uniquely within the stratum and PSU.

[^23]:    5 Space requirements will vary by the ECB component that is selected, the number of variables that may be chosen for generation of a hardcopy codebook, and by the statistical package usud by the researcher.

[^24]:    - The second follow-up restricted use CD-ROM contains an ASCII file of the student component cognitive test items; however, these items are not in the ECB format.

[^25]:    1 In addition to the HS\&B and NELS:88 high school transcripts available from the NELS program, two other NCES high school transcript data sets are also available, from records studies of graduating seniors in NAEP schools: the 1987 and 1990 High School Transcript Studies.

    2 In addition to the NLS-72 and HS\&B postsecondary transcripts files available within the NELS program, postsecondary transcripts are also available for 1985-86 and 1989-90 college graduates, through the NCES 1987 and 1991 Recent College Graduates Transcript Studies. Transcripts will also be collected fir college graduates surveyed in 1994 as part of the NCES Baccalaureate and Beyond study.

[^26]:    UESTION $13 B$.
    $1 ?()$

[^27]:    Quetion 1_17

[^28]:    NOTE: Thi veriable wet recoded on the public dete file by
    NCES in copdence wh the confidentielity provition of PL 100-297.

