## Contractor Report

# High School and Beyond Third Follow-Up (1986) Sample Design Report 



## Center for Education Statistics

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High School and Beyond
Third Follow-Up (1986)
Sample Design Report
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## 1. INTRODUCTION

The High School and Beyond third follow-up survey was conducted during the spring of 1986. This report provides information that fully documents major technical aspects of the third follow-up sample selection and implementation, describes the weighting procedures, examines the possible impact of nonresponse on sample estimates, and evaluates the precision of estimates derived from the sample.

A thorough understanding of the third follow-up sample design requires familiarity with the base year design. The present report reviews the base year sample design but does not discuss it in detail. Readers who want more detailed information about the base year sample should consult the High School and Beyond base year Sample Design Report. ${ }^{1}$ In particular, readers not familiar with the base year school and student selection procedures may wish to review the construction of the sampling frame, selection procedures, replacement and substitution procedures for ineligible and noncooperating schools, and base year weighting procedures.

### 1.1 Overview of High School and Beyond

### 1.1.1 GES' Longitudinal Studies Program

The mission of the Center for Education Statistics (CES) includes the responsibility to "collect and disseminate statistics and other data related to education in the United States" and to "conduct and publish reports on specific analyses of the meaning and significance of such statistics" (Education Amendment 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 a nationally representative sample of high school students, CES instituted the National Education Longitudinal Studies (NELS) program, a continuing long term effort. The general aim of the NELS program is to study the educational, vocational, and personal development of high school students and the personal, familial, social, institutional, and cultural factors that may affect that development.

The overall NELS program utilizes longitudinal time-series data bases in two ways: (1) each cohort is surveyed at regular intervals over a span of years, and (2) comparable data are obtained from successive cohorts, permitting studies of trends relevant to educational and career development and societal roles. Thus far the NELS program consists of two major studies: The National Longitudinal Study of the High School Class of 1972 (NLS-72) and High School and Beyond (HS\&B). A third major study, the National Education Longitudinal Study of 1988 (NELS:88), will begin with a survey of 8 th graders in 1988 and will continue with biennial follow-up surveys throughout the 1990 s.

The first major study, NLS-72, began with the collection of comprehensive base year data from approximately 19,000 high school seniors in the spring of 1972. The NLS-72 first follow-up survey added nearly 4,500 individuals in the original sample who did not participate at the time of the base year survey. Three more follow-up surveys were conducted with the full sample in 1974, 1976, and 1979, using a combination of mail surveys and personal and telephone interviews. Five follow-up surveys were conducted in the fall and winter of $1972,1974,1976,1979$, and 1986 using a combination of mail surveys and personal and telephone interviews.

The second major survey, HS\&B was designed to inform federal and state policy in the decade of the 1980 s . It began in 1980 with the collection of base year data on high school seniors and sophomores. The first follow-up study was conducted in the spring of 1982 , the second follow-up study occurred in the spring of 1984 , and the third follow-up study occurred in the spring of 1986.

### 1.1.2 The HS\&B Base Year Survey

The base year survey utilized a highly stratified multistage national probability sample of over 1,100 secondary schools as the first stage units of selection. In the second stage, 36 seniors and 36 sophomores were selected per school (in schools with fewer than 36 in either of these groups, all eligible students were included). A total of 30,030 sophomores and 28,240 seniors who were enrolled in 1,015 public and private high schools across the country participated in the base year survey. Student questionnaires focused on individual and family background, high school experiences, work experiences, and plans for the future. Students also were given cognitive tests to measure a variety of abilities.

School questionnaires, completed by principals or school administrators, provided information about enrollment, staff, educational programs; facilities and services, dropout cates; and special programs for handicapped and disadvantaged students. Teachers filled out checklists in which they commented on the abilities; behavior, and attitudes of students participating in the survey. A parent questionnaire, with questions on plans for postsecondary education, was mailed to the parents of a subsample of students.

### 1.1.3 The HS\&B First, Second, and Third Follow-Up Surveys

The first follow-up survey, conducted in 1982, included subsamples of 29,737 sophomore cohort and 11,995 senior cohort representatives from the base year survey samples. During the fall of 1982, nearly 18,500 of the sophomore cohort members selected for the first follow-up suryey were subsampled for the High School and Beyond Transcripts Survey. ${ }^{2}$ The second follow-up survey, conducted in 1984 , subsampled 14,825 members of those 18,500 sophomores, and it retained all of the seniors from the first follow-up survey selections. The questionnaires for the second follow-up focused on postsecondary education, work, family formation, and selected attitudes. The third follow-up survey, conducted in 1986, used the same samples as the second follow-up survey, and for the first time, the senior and sophomore cohores completed the same questionnaire, again covering postsecondary education, work, family formation, and selected attitudes.

### 1.2 Orerview of Chapters 2 through 5

Chapter 2 summarizes the base year sample selection procedures and describes in detail the selection procedures for the follow-up surveys. It describes the sub-sampling plans that were adopted and shows the allocation of cases to sample cells in the sophomore and senior cohorts. Base year sample stratification and sample allocations are also summarized.

Chapter 3 describes the calculation of sample case weights that adjust for differential probabilities of selection and for nonresponse within weighting cells. In order to provide full technical information, the nonresponse adjustment factors for all weighting cells are included in appendices $A$ and $B$.

Chapter 4 examines the possible impact of survey nonresponse, a potential source of bias. The amount of bias depends on the proportion of nonrespondents and the magnitude of any difference between respondents and nonrespondents on variables of interest. Unfortunately, it is seldom possible to estimate accurately the amount of bias because, although the proportion of nonrespondents is known, there is usually no satisfactory way to estimate the difference between respondents and nonrespondents. Panel surveys, however, often are able to obtain estimates of nonresponse bias based on the characteristics of sample members who participated in one wave but were nonrespondents to another wave. Chapter 4 presents the results of a comparison between base year refusing schools and their substitutes, a comparison of base year responding students and nonresponding students, and a description of nonresponse rates among various subclasses of the third follow-up sample.

Chapter 5 describes procedures for computing sampling errors and design effects. The High School and Beyond sample, because it is a clustered, stratified, and disproportionately allocated sample, presents some special difficulties in estimating actual sampling errors. Chapter 5 discusses the approach NORC has taken to this problem. Sampling errors and design effects are presented for a set of proportions for both the entire sample and important domains or subgroups. Design effects obtained from the second follow-up sample are compared to those obtained from the base year sample. Finally, several "rules of thumb" are offered for estimating standard errors under various circumstances.

NOTES TO CHAPTER 1
IFrankel, M., Kohnke, L., Buonanno, D. and Tourangeau, R. (1981) Sample Design Report. Chicago: . NORC.
${ }^{2}$ Tourangeau R., McWilliams H., Jones C., Frankel M., and O'Brien F., (1983) High School and Beyond First Follow-Up (1982) Sample Design Report. Chicago: NORC.

## 2. SAMPLE DESIGN AND IMPLEMENTATION

### 2.1 Base Year Survey Sample Design ${ }^{1}$

In the base year, students were selected through a two stage, stratified probability sample with schools as the first stage units and students within schools as the second stage units. With the exception of certain special strata, which were oversampled, schools were selected with probabilities proportional to the estimated enrollment in their 10 th and 12 th grades. Within each school, 36 seniors and 36 sophomores were randomly selected. In those schools with fewer than 36 seniors or 36 sophomores, all eligible students were drawn in the sample. Sampling rates for each stratum were set so as to select in each stratum the number of schools needed to satisfy study design criteria regarding minimum sample sizes for certain types of schools. As a result, some schools had a very high probability of inclusion in the sample (in some cases, equal to 1.0 ), while others had a very low probability of inclusion. The total number of schools selected for the sample was 1,122, from a frame of 24,725 schools with grades 10 or 12 or both. ${ }^{2}$ Sampling strata and the number of schools selected in each are shown in table 2.1-1.

Substitution was carried out for schools that refused to participate in the survey, but there was no substitution for students who refused, whose parents refused, or who were absent on Survey Day and make-up days. ${ }^{3}$ Substitution for refusal schools occurred only within strata. In certain cases no substitution was possible because all schools were selected in some strata. The realization of the sample by stratum is shown in table 2.1-2.

### 2.2 First Follow- Øp Survey Sample Design

All 1980 senior cohort students selected for the base year sample had a known, non-zero chance of being selected for the first and all subsequent follow-up surveys. The first follow-up sample consisted of 11,995 selections from the base year probability sample. This total includes 11,500 selections from among the 28,240 base year participants and 495 selections from among the 6,741 base year nomparticipants. In addition, 204 non-sampled co-twins or triplets (not part of the probability sample) were included in the first follow-up sample, resulting in a total of 12,199 selections. The sample design retained the essential features of a stratified multi-stage design; for further details, see Tourangeau, et al., 1983.4

Most of the sophomore cohort students selected for the base-year sample were retained in the first follow-up survey. Students (1980 sophomores) still enrolled in their original base year schools were retained with certainty, and the remaining sophomores were subsampled with various rates. In all, the sample numbered 29,737. Like the design for the senior cohort, the sophomore cohort first follow-up was a stracified multi-stage design.

Table 2.1-1
High School and Beyond Base Year School Sample Selections

| Special Strata (oversampled) |  |
| :---: | :---: |
| Alternative public | $\frac{\text { Number }}{50}$ |
| Cuban public | 20* |
| Cuban Catholic | 106* |
| Other Hispanic public | 12 |
| Other non-Catholic private (stratified by four census regions) <br> Black Catholic | 38 * |
| Regular Strata (not oversampled) |  |
| Regular Catholic (stratified by four census regions) | 48 |
| Regular public (stratified by nine census divisions; racial composition; enrollment; central-city, suburban, rural) | 808 |
|  | 1,122 |

*These schools were defined as those having 30 percent or more of enrollment from the indicated subgroup.

Table 2.1-2

High School and Beyond Base Year Sample Realization

*Includes additional selections made when schools were found to be out-of-scope.
**Unusable because critical survey materials missing.

### 2.3 High School Transcripts Sample Design (1980 Sophomore Gohort)

Subsequent to the first follow-up survey, high school transcripts were sought for a probability subsample of nearly 18,500 members of the 1980 sophomore cohort. The subsampling plan for the Transcript Study emphasized the retention of members of subgroups of special relevance for education policy analysis. Compared to the base year and first follow-up surveys, the Transcript Study sample design further increased the overrepresentation of racial and ethnic minorities (especially those with above average HS\&B achievement test scores), students who attended private high schools, school dropouts, transfers and early graduates, and students whose parents participated in the base year Parents' Survey on financing postsecondary education.

### 2.4 Second and Third Follow-Up Survey Sample Design

The members of the senior cohort selected into the second follow-up sample consisted exactly of those who were selected into the first followup.

The sample for the second follow-up survey of the 1980 sophomore cohort was based upon the transcripts study design. A total of 14,825 cases were selected from among the 18,500 retained for the transcript study. As was the case for the elder cohort, che younger cohort second follow-up sample included disproportionate numbers of sample members from policy-relewant subpopulations (e.g., racial and ethnic minorities, students from private high schools, high school dropouts, students who planned to pursue some type of postsecondary schooling, and so on). Sample weights have been provided to compensate for differential selection probabilities and participation rates across all survey waves.

For both the elder and the younger cohorts, the third follow-up survey sample was the same as the second follow-up survey sample. Since the third follow-up survey sample of the elder cohort was the same as the first (and second) follow-up survey sample, and the third follow-up survey sample of the youngex cohort was the same as the second follow-up survey sample, descriptions of the compositions of the third follow-up survey samples of both cohorts may be found in earlier sample reports ${ }^{5}$.

NOTES TO CHAPTER 2
$1_{\text {For }}$ further details on the base year sample design see Frankel, M., Kohnke, L., Buonanno, D. and Tourangeau, R. (1981) Sample Design Report. Chicago: NORC.
${ }^{2}$ The sampling frame, defined as the universe of high schools in the United States, was obtained from the 1978 list of U.S. elementary and secondary schools of the Curriculum Information Center, a private firm. This was supplemented by the NCES lists of public and private elementary and secondary schools. Information on racial composition was obtained from the 1976 and 1972 DHEW/Office of Civil Rights Secondary School Civil Rights Computer File of public schools and the National Catholic Education Association's list of Catholic schools. Any school listed in any of these files that contained a 10th grade, a 12 th grade, or both was made part of the frame.
${ }^{3}$ Apart from substitution for schools that refused, there were a number of schools in the originally-drawn sample that were "out-of-scope," failing to fit the criteria for inclusion in the sample. The sample was then augmented through selection of an additional school for each out-ofscope school, within major strata. Most of the out-of-scope schools were area vocational schools, having no enrollment of their own, although they were listed in the frame as having enrollments.
${ }^{4}$ Tourangeau R., McWilliams H., Jones C., Frankel M., and O'Brien F., (1983) High School and Beyond First Follow-Up (1982) Sample Design Report. Chicago: NORG.
${ }^{5}$ For the elder cohort see Tables 2.6 and 2.7 of Tourangeau et al. (1983), or Tables 3.2-1 of the Senior Cohort Third Follow-Up (1986) Data File User's Manual, Vol.1. For the younger cohort see Tables 2.4-1 through 2.4-4 of Jones and Spencer (1985), High School and Beyond Second Follow-Up (1984) Sample Design Report or Tables 3.3-1 through 3.3-4 of the Sophomore Cohort Third Follow-Up Data File User's Manual, Vol.1. Chicago: NORC.

## 3. SAMPLE WEIGHTS

### 3.1 General Approach to Weighting

The general purpose of weighting is to compensate for unequal probabilities of selection (retention) for the base year and the follow-up surveys and to adjust for the fact that not all individuals selected for participation in the surveys actually participated. The weights are based on the inverse of the selection probabilities through all stages of the sample selection process and on nonresponse adjustment factors computed within weighting cells. In this report, weights are described separately for three subgroups of respondents from each cohort of the HS\&B sample: all third follow-up participants, third follow-up respondents who also participated in the base year, and third follow-up respondents who also participated in the base year, first, and second follow-up surveys. In addition to these various sets of weights, a raw weight, unadjusted for nonresponse in any of the surveys, was calculated and included on the data file for each cohort. The raw weight provides the basis for analysts to construct additional weights, adjusted for the presence of virtually any combination of data elements.

Several different weights have been calculated to adjust for the fact that not all sample members have data for all instruments in all survey waves. Table 3.1-1 describes four of the weights calculated for both the senior and sophomore cohorts. The senior cohort weights project to the population of approximately $3,040,000$ high school seniors in 1980 . Similarly, the sophomore cohort weights project to the population of $3,781,000$ high school sophomores in 1980.

Table 3.1-1
Sample Case Weights, Third Follow-Up Survey

| Weight Applies to cases with: |  | Unweighted number of cases$\qquad$ having these weights |  |
| :---: | :---: | :---: | :---: |
|  |  | 1980 Seniors | 1980 Sophomores |
| FU3WT | Third follow up questionnaire data | 10,583 | 13,481 |
| PANELWT4 | Base year, first follow-up, second follow-up, and third follow-up questionnaire data | 9,389 | 11,708 |
| TESTWT3 | Third follow-up questionnaire data and high school test data | 9,149 | 13,205 |
| RAWWTAll | Third follow-up selections | 11,995 | 14,825 |

TESTWT3 was constructed only for cases for whom sufficient test data were available to construct a meaningful composite score (TEST). The counts in Table 3.1-1 include deceased persons, who have been given a weight in order to keep the population totals consistent with those of the base year survey.

### 3.2 Weighting Procedures

The weighting procedures consisted of two basic steps. The first step is the calculation of a preliminary follow-up weight based on the inverse of the cumulative probabilities of selection for the base year sample and up through the third follow-up survey. The second step carries out the adjustment of this preliminary weight to compensate for "unit" nonresponse-that is, for non-completion of an entire questionnaire or some combination of survey instruments. (No adjustments are made to the raw weights, which are, by definition, unadjusted for nonresponse.) These steps are described in more detail below.

Step 1: Calculation of raw weights. The first step in weighting the sample was to develop raw weights based on the inverse of the probability of selection (retention) for the various follow-ups. For HS\&B selections, the raw weights are identical to the raw weights for the second follow-up sample, because all cases selected for the second follow-up were retained in the third follow-up sample and no new cases were selected.

Step 2: Nonresponse adjustment. In this step, the raw weights obtained in step 1 were multiplied by nonresponse ratio adjustment factors. Different factors were used to develop FU3WT, PANELWT4, and TESTWT3, but the approach is similar for each weight. Cases were distributed among weighting cells. Within each weighting cell two sums of raw weights were computed: the first for all cases in the cell selected for the survey wave or combination of waves (selections); the second for all cases in the cell for whom the specified combination of questionnaire and/or test data were collected (participants). The ratio of the two sums (selections over participants) provided a factor used to expand the preliminary weight of each participant to compensate for the missing weights of those who were selected but did not participate. The raw weights of nonparticipants were multiplied by an adjustment factor of zero to produce final weights of zero for these cases. Thus, the nonresponse adjustment consists of distributing the preliminary weights of the nonparticipants proportionately among the participants in each weighting cell.

The weighting cells were defined by cross classifying cases by several variables. For the sophomore cohort third follow-up weight (FU3WT), the cells were defined by:
(1) Dropout status
(1) non-dropout
(2) dropout
(2) School type (for non-dropouts only)
(1) regular public and alternative
(2) Hispanic public
(3) Catholic
(4) private non-Catholic
(3) Sex
(1) male
(2) female
(4) Race
(1) Hispanic
(2) non-Hispanic Black
(3) non-Hispanic White and other
(5) Base year test quartile
for non-dropouts: for dropouts:
(0) no test data available
(1) lowest quartile
(2) second quartile
(0) no test data available
(3) third quartile
(1) below median
(4) highest quartile

In some instances, cells were combined by pooling cases across base year test quartile classifications or type of high school attended.

For the senior cohort third follow-up weight (FU3WT), the cells were defined by:
(1) Base year participation
(1) Non-paxticipant
(2) Participant
(2) School type
(1) Regular public and alternative
(2) Hispanic public
(3) Catholic
(4) Private non-Catholic
(3) Sex (for base year participants only)
(1) male
(2) female
(4) Race (for base year participants only)
(1) Hispanic
(2) non-Hispanic Black
(3) non-Hispanic White and other
(5) Base year test quartile (for base year participants only)
(0) no test data available
(1) lowest quartile
(2) second quartile
(3) third quartile
(4) highest quartile

In some instances, cells were combined by pooling cases across base year test quartile classifications or type of high school attended.

For the senior cohort panel weight (PANELWT4), the cells were defined as above except that neither base year participation nor base year test quartile were used. For senior cohort weight TESTWI3, the cells were defined as for PANELWT4, except that sex was ignored for cases who attended private schools.

### 3.3 Results of Weighting

As a check on the adequacy of the sample case weights, NORC analyzed the statistical properties of the weights and the effects of various weights on the composition of the survey samples. Tables 3.3-1 and 3.3-2 show the mean, variance, standard deviation, coefficient of variation, minimum, maximum, skewness, and kurtosis for each of the weights calculated for the third follow-up survey.

Table 3.3-1
Statistical Properties of Sample Weights: 1980 Sophomore Cohort

|  | RAWWT | FU3WT | PANELWT4 | TSTWT3 |
| :--- | :---: | :---: | :---: | :---: |
| Weight | 255.0 | 280.5 | 322.9 | 286.3 |
| Mean | V7,703 | 70,989 | 78,940 | 73,039 |
| Variance | 240.2 | 266.4 | 281.9 | 270.3 |
| Standard Deviation | 0.94 | 0.95 | 0.87 | 0.94 |
| Coefficient of Variation | 1.45 | 1.62 | 1.80 | 1.74 |
| Minimum | 3098 | 3350 | 3969.7 | 3446.3 |
| Maximum | 2.38 | 2.66 | 1.97 | 2.71 |
| Skewness | 11.9 | 14.5 | 10.5 | 15.6 |
| Kurtosis | 14,825 | 13,481 | 11,708 | 13,205 |
| Number of Cases |  |  |  |  |

Table 3.3-2
Statistical Properties of Sample Weights: 1980 Senior Cohort

| Weight | RAWWT | FU3WT | PANELWT4 | TSTWT3 |
| :--- | :---: | :---: | :---: | :---: |
| Mean | 253.4 | 287.2 | 323.8 | 332.3 |
| Variance | 69,496 | 91,909 | 104,471 | 11,632 |
| Standard Deviation | 263.6 | 303.2 | 323.2 | 334.1 |
| Coefficient of Variation | 1.04 | 1.06 | 1.00 | 1.01 |
| Minimum | 1.09 | 1.14 | 1.57 | 1.67 |
| Maximum | $1,080.8$ | $1,548.8$ | $1,045.5$ | $1,081.9$ |
| Skewness | 1.02 | 1.22 | 0.09 | 0.94 |
| Kurtosis | -0.40 | 0.60 | -1.02 | -0.92 |
| Number of Cases | 11,995 | 10,583 | 9,389 | 9,149 |

## 4. NONRESPONSE ANALYSES

### 4.1 General Considerations

Nonresponse inevitably introduces some degree of error into survey results. In examining the impact of nonresponse, it is useful to think of the survey population as including two strata-a respondent stratim that consists of all units that would have provided data had they been selected for the survey, and a nonrespondent stratum that consists of all units that would have been survey nonrespondents. The actual sample of respondents necessarily consists entirely of units from the respondent stratum. Sample statistics can serve as unbiased estimates only for this stratum; as estimates for the entire population, the sample statistics will be biased to the extent that the characteristics of the respondents differ from those of the entire population. The bias may be expressed as:

$$
\begin{equation*}
\text { Bias }=Y_{R}-Y \tag{1}
\end{equation*}
$$

in which

$$
\left.\begin{array}{rl}
Y_{R}= & \text { a parameter (e.g., a mean) characterizing the } \\
& \text { population of respondents }
\end{array}\right\}
$$

For many simple parameters such as means and proportions, the population parameter (Y) is a weighted average of the stratum parameters ( $Y_{R}$ and $Y_{N R}$ ):

$$
\begin{equation*}
Y=P\left(Y_{N R}\right)+(1-P) Y_{R} \tag{2}
\end{equation*}
$$

with
$P=$ the proportion of the population in the nonrespondent stratum.

It is evident from equations (1) and (2) that the nonresponse bias for an estimated mean or proportion depends on $P$ and on the magnitude of the difference between respondents and nonrespondents:

$$
\begin{equation*}
\text { Bias }-P\left(Y_{R}-Y_{N R}\right) \tag{3}
\end{equation*}
$$

Nonresponse bias will be small if the nonrespondent stratum constitutes only a small portion of the survey population or if the differences between respondents and nonrespondents are small. $P$ can generally be estimated from survey data using an appropriately weighted nonresponse rate.

In the High School and Beyond study, there were two stages of sample selection and therefore two stages of nonresponse. During the base year survey, sample schools were asked to permit the selection of individual sophomores and seniors from school rosters and to designate "survey days" for the collection of student questionnaire and test data... Schools that
refused to cooperate in either of these activities were dropped from the sample. Individual students at cooperating schools could also fail to take part in the base year survey. Unlike "refusal" schools, nomparticipating students were not dropped from the sample; they remained eligible for selection into the follow-up samples.

Estimates based on student data from the base year surveys include two components of nonresponse bias:

$$
\begin{equation*}
\text { Bias }=\left(Y_{1 R}-Y\right)+\left(Y_{2 R}-Y_{1 R}\right), \tag{4}
\end{equation*}
$$

in which

$$
\left.\begin{array}{rl}
Y= & \text { a parameter characterizing all students, } \\
Y_{1 R}= & \text { the corresponding parameter for all students } \\
& \text { attending cooperating schools, and }
\end{array}\right\}
$$

The first component ( $Y_{1 R}-Y$ ) represents the bias introduced by nonresponse at the school level, and the second component ( $Y_{2 R}-Y_{1 R}$ ) represents bias introduced by nonresponse on the part of students actending cooperating schools. Each component of the overall bias depends on two factors--the level of nonresponse and the difference between respondents and nonrespondents:

$$
\begin{equation*}
\text { Bias }=P_{1}\left(Y_{1 R}-Y 1_{N R}\right)+P_{2}\left(Y_{2 R}-Y_{2 N R}\right) \tag{5}
\end{equation*}
$$

in which
$P_{1}=$ the proportion of the population of students attending schools that would have been nonrespondents,
$Y_{1 N R}=$ the parameter describing the population of students attending nonrespondent schools,
$P_{2}=$ the proportion of students attending respondent schools who would have been nonrespondents, and
$Y_{2 N R}=$ the parameter describing this group of students.
The implications of equations (4) and (5) can be easily seen in terms of a particular base year estimate. On the average, sophomores got 10.9 items right on a standardized vocabulary test ${ }^{2}$. This figure is an estimate of $Y_{2 R}$, the population mean for all participating students at cooperating schools. Now, suppose that sophomores at cooperating schools average two more correct than sophomores attending refusal schools ( $Y_{1 R}-Y_{1 N R}=2$ ), and suppose further that among sophomores attending cooperating schools, student respondents average one more correct answer than student nonrespondents $\left(Y_{2 R}-Y_{2 N R}=1\right)$. Noting that the base year school nonresponse rate was about $.30^{3}$ and the student nonresponse rate for sophomores was about $.12^{4}$, we can use these figures as estimates of $P_{1}$ and $P_{2}$ and we can use equation (5) to calculate the bias as:

$$
\text { Bias }=.30(2)+.12(1)=.72
$$

That is, the sample estimate is biased by about .7 of a test score point.

This example assumes knowledge of the relevant population means; in practice, of course, they are not known and, although $P_{1}$ and $P_{2}$ can generally be estimated from the nonresponse rates, the lack of survey data for nonrespondents prevents the estimation of the nonresponse bias. The High School and Beyond study is an exception to this general rule: during the first follow-up, school questionnaire data were obtained from most of the base year refusal schools, and student data were obtained from most of the base year student nonrespondents selected for the first follow-up sample. These data provide a basis for assessing the magnitude of nonresponse bias in base year estimates.

The bias introduced by base year school-level refusals is of particular concern since it carries over into successive rounds of the survey. Students attending refusal schools were not sampled during the base year and have no chance for selection into subsequent rounds of observation. To the extent that these students differ from students from cooperating schools during later waves of the study, the bias incroduced by base year school nonresponse will persist. Student nonresponse is not carried over in this way since student nonrespondents remain eligible for sampling in later waves of the study.

The results of three types of analyses concerning nonresponse are described in an earlier report . Based on school questionnaire data, schools that participated during the base year were compared with all eligible schools. Based on the first follow-up student data, base year student respondents were compared with nonrespondents. Finally, student nonresponse during the first follow-up survey was analyzed. Taken together, these earlier analyses indicated that nonresponse had little effect on base year and first follow-up estimates. The results presented there suggest that the school-level component of the bias affected base year estimates by 2 percent or less and that the student-level component had even less impact.

In section 4.2, we analyze student nonresponse during the HS\&B third follow-up. The school-lewel component of the nomresponse bias in third follow-up estimates is just the carryover from base year school nonresponse, which was shown to be 2 percent or less in the analysis cited above.

### 4.2 Analysis of the Third Follow- Op Survey Student Nonresponse Rates

This section examines the antecedents and correlates of nonresponse. A few preliminary remarks on the bias resulting from nonresponse are nonetheless in order. First, it should be noted that school nonresponse may have the same effect on base year, first, second, and third follow-up estimates-students attending refusal schools were not sampled in the base year and have no chance of inclusion in the first, second, or chixd follow-up. For this reason, the estimates presented in earlier reports ${ }^{6}$ may serve as escimates of the bias due to school nonresponse for the follow-up surveys as well as the base year. To the extent that the association between school attended and student characteristics decreases with the passage of time since the base year, the biasing effect of school refusals may be less now than it was for the base year. Second, student nonresponse was much lower in the third follow-up than in the base year
survey; other things being equal, the bias due to student nonresponse should be correspondingly smaller (see Equation 5). Overall, the weighted student nonresponse rates during the third follow-up were 9.6 percent in the sophomore cohort and 11.7 percent in the senior cohort (versus 12.0 and 15.2 percent respectively during the base year). Thus, it is reasonable to expect that bias in third follow-up estimates due to student nonresponse is smaller than that in the base year estimates, where it was already small.

There were several causes of student nonparticipation in the followup surveys. Some students refused to cooperate; others could not be located or were unavailable at the time of the third follow-up survey, and a few had died. Nonresponse rates were calculated in the usual way; the nonresponse rate is the proportion of the selected students (excluding deceased students) who were nonrespondents:

$$
P=\frac{N R}{R+N R}
$$

in which
$\mathbf{P}=$ the nonresponse rate
$\mathrm{R}=$ the number of responding students
$\mathrm{NR}=$ the number of nonresponding students.

Nonresponse rates were calculated for each cohort by school-level and student-level variables using both unweighted and weighted data. The weight used was RAWWT. (See chapter 3 for a complete description of the weighting procedures.)

An overall indication of the level of participation and nonparticipation in the base year, first follow-up, second follow-up, and third follow-up surveys is presented in Table 4.2-1 and 4.2-2. These tables show frequencies and percentages of cases in each of sixteen cells. The totals presented in Tables 4.2-1 and 4.2-2 are unweighted.

### 4.2.1 Third Follow-Up Survey Student Nonresponse Rates: School Variables

This section examines nonresponse to the third follow-up for each cohort by school-level variables. Five variables are shown in Table 4.2.1-1: school type, census region, level of urbanization, percentage of Black enrollment, and average enrollment. Base year and first follow-up data were used to classify the schools. The response rates given in the table are weighted, using RAWWT.

Table 4.2.1-1 indicates that the highest nonresponse rate for the sophomore cohort occurred among respondents who had been alternative public school students ( 19.8 percent), and the lowest rate was among former students at Catholic schools ( 5.7 percent). Among seniors, former Hispanic public school students had the highest nonresponse rate ( 16.9 percent) and former Catholic students the lowest ( 10.4 percent).

There is moderate variation in nonresponse by region, although in both cohorts, sample members selected from schools in the West show the highest rate of nonresponse ( 11.9 percent for the sophomores and 16.4 percent for the seniors). The nonresponse rates were lowest for participants who had been students in North Central schools (around 7.6 percent for each cohort).

Table 4.2-1
Participation Patterns for Base Year,
First Follow-Up, Second Follow-Up and Third Follow-Up Surveys: Sophomore Cohort

| Participation Patterns* |  |  |  | Frequency | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sophomore Cohort |  |  |  |  |  |
| BY | 1FU | 2 FU | 3 FU |  |  |
| N | N | N | N | 76 | 0.5 |
| N | N | N | $Y$ | 23 | 0.2 |
| N | N | Y | N | 9 | 0.1 |
| N | N | Y | Y | 18 | 0.1 |
| N | Y | N | N | 53 | 0.4 |
| N | Y | N | Y | 60 | 0.4 |
| N | Y | Y | N | 76 | 0.5 |
| N | Y | Y | Y | 758 | 5.1 |
| Y | N | N | N | 104 | 0.7 |
| Y | N | N | Y | 93 | 0.6 |
| $\underline{Y}$ | N | Y | N | 52 | 0.4 |
| Y | N | Y | Y | 343 | 2.3 |
| Y | Y | N | N | 259 | 1.8 |
| Y | Y | N | Y | 447 | 3.0 |
| $Y$ | Y | $Y$ | N | 11, 715 | 4.8 |
| Y | Y | Y | $Y$ | 11,683 | 79.1 |
| Total |  |  |  | 14,769 | 100.0 |

Table 4.2-2
Participation Patterns for Base Year,
First Follow-Up, Second Follow-Up, and Third Follow-Up Surveys: Senior Cohort

| Participation Pattern* |  |  |  | Frequency | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Senior Cohort |  |  |  |  |  |
| BY | 1 FU | $\underline{2 F U}$ | 3 FU |  |  |
| N | N | N | N | 48 | 0.4 |
| N | N | N | Y | 13 | 0.1 |
| N | N | $Y$ | N | 4 | 0.0 |
| N | N | Y | Y | 18 | 0.2 |
| N | $Y$ | N | N | 18 | 0.2 |
| N | Y | N | Y | 20 | 0.2 |
| N | Y | $Y$ | N | 35 | 0.3 |
| N | Y | Y | Y | 335 | 2.8 |
| Y | N | N | N | 195 | 1.6 |
| Y | N | N | Y | 106 | 0.9 |
| Y | N | Y | N | 77 | 0.6 |
| Y | N | Y | Y | - 294 | 2.5 |
| Y | Y | N | * | 266 | 2.2 |
| Y | Y | N | Y | 377 | 3.2 |
| Y | צ | Y | N | 769 | 6.4 |
| Y | 8 | 区 | $\Psi$ | 9,373 | 78.5 |
| Total |  |  |  | 11,948 | 100.0 |

NOTE: Counts refer to main samples only, excluding nonsampled co-twins, and excluding deceased persons.
*BY = base year survey; $1 F U=$ first follow-up survey;
$2 \mathrm{FU}=$ second follow-up survey; $3 \mathrm{FU}=$ third follow-up survey; $Y$ denotes participation, and $\mathbb{N}$ denotes non participation.

Table 4.2.1-1
Weighted Student Nonresponse Rates by Selected School Characteristics (figures are percents)

| Characteristics | Sophomore cohort | Senior cohort |
| :---: | :---: | :---: |
| Total population | 9.6 | 11.7 |
| School type: |  |  |
| Regular public | 9.6 | 11.6 |
| Hispanic public | 11.3 | 16.9 |
| Alternative public | 19.8 | 11.3 |
| Non-Catholic private | 11.9 | 14.7 |
| Catholic | 5.7 | 10.4 |
| Region: |  |  |
| Northeast | 11.3 | 12.6 |
| North Central | 7.3 | 7.8 |
| South | 9.2 | 11.8 |
| West | 11.9 | 16.4 |
| Urbanization: |  |  |
| Urban | 14.4 | 14.3 |
| Suburban | 9.2 | 12.8 |
| Rural | 6.7 | 8.2 |
| Percent Black: |  |  |
| 25\% or less | 8.6 | 11.0 |
| Greater than 25\% | 13.3 | 13.8. |
| Other/unknown | 10.8 | 15.3 |
| Average enrollment: |  |  |
| 100 or less | 7.6 | 10.0 |
| 101.135 | 7.4 | 11.1 |
| 326-550 | 8.9 | 11.5 |
| More than 550 | 13.5 | 13.6 |
| Other/unknown | 11.7 | 16.3 |

For both cohorts, there is a small but consistent relationship between student nonresponse and level of urbanization. The nonresponse rate is highest for students who were attending urban schools at the time of the base year sample selection ( 14.4 percent for the sophomore cohort and 14.3 percent for the senior), next highest for students from suburban schools ( 9.2 percent for sophomores and 12.8 percent for seniors) and lowest for students from rural schools ( 6.7 percent for sophomores and 8.2 percent for seniors).

Students selected at schools with a large percentage of Blacks (25 percent or more) showed somewhat higher rates of nonresponse than students at schools with fewer Blacks. The difference in nonresponse rates between these groups is slightly larger for the sophomore cohort (13.3 versus 8.6 percent) than for the seniors ( 13.8 versus 11.0 percent).

Student nonresponse seems to increase roughly with school size. For both cohorts, the rates are highest among students who attended the largest schools.

### 4.2.2 Third Follow-Op Survey Student Nonresponse Patterms: StudentLevel Variables

In this section, the student nonresponse rates to the third follow-up survey are analyzed by student-level variables, including demographic characteristics, academic aptitude, high school program, and postsecondary education. Students were classified by their responses to the base year questionnaire for all characteristics except student status (for which first and second follow-up data were used). Table 4.2.2-1 shows the weighted rate of nonresponse by race, sex, high school program, base year SES, and student status. The cacegory "other/unknown" is a general classification that includes both cases with missing data and cases that did not fall into any of the other specifically defined categories. Nonresponse generally is substantially higher for the "other/unknown" categories. This is an artifact attributable to the substantial number of third follow-up nonrespondents who were also nonrespondents in both the base year and the first follow-up surveys. These triple nonparticipants could only be classified in the unknown category, hence elevating the nonresponse rate for that group.

Table 4.2.2-1
Weighted Student Nonresponse Rates by Selected Student Characteristics (figures are percents)

| Characteristics | Sophomore cohort | Senior cohort |
| :---: | :---: | :---: |
| Total population | 9.6 | 11.7 |
| Race: |  |  |
| White/other | 6.7 | 9.2 |
| Black | 13.1 | 15.3 |
| Hispanic | 11.9 | $\frac{13}{39} \cdot \frac{1}{4}$ |
| Other/unknown | 36.2 | 39.4 |
| Sex: |  |  |
| Male | 11.6 |  |
| Female | 17.6 | 14. 9 |
| High school program: 9.9 |  |  |
| General | 9.9 6.3 | $1 \frac{11.1}{}$ |
| Vocational | 9.5 | 11.0 |
| Other/unknown* | 63.3 | 21.1 |
| SES quartile in base year: |  |  |
| Highest quartile | 5.7 | 8.2 |
| Middle two quartile | 7.6 | 9.6 |
| Lowest quartile | 35.4 | 11.5 |
| Student status: |  |  |
|  |  |  |
| No postsecondary education | 7.8 | 9.2 |
| Only vocational. |  |  |
| postsecondary education | 28.8 | 31.2 |
| Other postsecondary education | 4.5 | 8.1 |

Note: Other/unknown includes cases with missing data and cases who did not otherwise fall into any of the defined categories.

There is marked variation in student nonresponse by race. Blacks show the highest nonresponse rate in both cohorts, followed by Hispanics, and then by other whites; however, a substantial portion of the second follow-up student nonrespondents were also base year and first follow-up nonrespondents and were not classified by race. For this reason, there is some uncertainty about the actual nonresponse rates for the different racial and ethnic groups.

In both cohorts, males exhibit a higher nonresponse rate than females. The difference is 4.0 percent in the sophomore cohort ( 11.6 percent for males versus 7.6 percent for females) and 4.6 percent in the semior cohort ( 14.1 versus 9.5 percent).

In both cohorts, students who were in academic programs during the base year were less likely to be nonrespondents than students in general or vocational programs.

In each cohort, nonresponse was highest for students classified as the lowest SES level ( 9.4 percent in the sophomore cohort, 11.5 percent in the senior cohort). The lowest nonresponse rates were observed for students classified in the highest SES category ( 5.7 and 8.2 percent).

Table 4.2.2-1 also shows that the students who had non-vocational postsecondary education had the lowest nonresponse rates ( 4.5 percent for sophomores and 8.1 percent for seniors); students who reported no postsecondary education had somewhat higher rates of nonresponse ( 7.8 percent and 9.2 percent), and students who had only postsecondary vocational education had extremely.high nonresponse rates ( 28.8 percent and 31.2 percent).

These differences across groups in response rates are somewhat similar to those observed during previous rounds of data collection. A picture of student nonrespondents is continuing to emerge from the analyses which suggests that groups with less involvement with education were less likely to participate in the survey: dropouts had higher nonresponse rates than non-dropouts; students with lower grades and lower test scores showed higher nonresponse than students with higher grades and test scores; students who were frequently absent from school showed higher nomresponse than students absent infrequently; students in vocational or general programs were more likely to be nonrespondents than students in academic programs.

### 4.2.3 Sumary of Nonresponse Analyses

The analyses presented here and in previous reports ${ }^{7}$ support three general conclusions:
(1) The school-level bias component in estimates is small, averaging less than 2 percent for base year and first follow-up estimates. It is probably of a similar magnitude for third follow-up estimates.
(2) The student-level bias component in base year estimates is also small, averaging about 0.5 percent for percentage estimates concerning either cohort.
(3) The student-level bias component in first, second, and third follow-up estimates is limited by the nonresponse rates, which for both cohorts were about three fourths of the base year rates.

The first and second conclusion together suggest that nonresponse bias is not a major contributor to error in base year estimates; the first and third suggest that nonresponse bias is not a major contributor to error in follow-up estimates either.

Each of these conclusions must be given some qualifications. The analysis of school-level nonresponse is based on data concerning the schools, not the students attending them. The analyses of student nonresponse are based on survey data and are themselves subject to nonresponse bias. Despite these limitations, the results consistently indicate that nonresponse had a small impact on base year and follow-up estimates.

NOTES TO CHAPTER 4
${ }^{1}$ See Cochran, W. G. (1977) Sampling Techniques, Third Ed., New York: Wiley. p. 361
${ }^{2}$ See p. A-4 of Tourangeau, R., McWilliams, H., Jones, "C., Frankel, M., and O'Brien, F. (1983) High School and Beyond First Follow-Up (1982) Sample Design Report. Chicago: NORC.
${ }^{3}$ See Frankel, M., Kohnke, L., Buonanno, D., and Tourangeau, R. (1981). High School and Beyond Sample Design Report. Chicago: NORC, p. 93
${ }^{4}$ See Frankel et al. (1981), p. 124
${ }^{5}$ See Tourangeau et al. (1983), ch. 4
${ }^{6}$ See Tourangeau al. (1983), ch. 4, tables 4.1 and 4.3
${ }^{7}$ See Frankel et al. (1981), Tourangeau et al. (1983), and Jones, G. and Spencer, B. D. (1985) High School and Beyond Second Follow-Up (1984) Sample Design Report. Chicago: NORC.

## 5. STANDARD ERRORS AND DESIGN EFFEGTS

This chapter examines the standard errors for statistics--such as means and proportions-derived from the third follow-up survey data sets. Most researchers are familiar with the use of standard exrors to assess the variability of estimates based on simple random samples; more complex designs, however raise less familiar statistical issues. Both the senior and sophomore cohorts for the third follow-up survey were selected using stracified, clustered, unequal probability designs. With such complex designs, standard errors must be calculated using procedures different from the familiar methods used for data from simple random samples.

Before presenting standard errors for third follow-up survey estimates, it is useful to discuss some of the statistical issues raised by complex sample designs. First the computational procedures used to estimate the standard errors are discussed, followed by an examination of the relationship between standard errors based on complex samples and those based on simple random samples.

### 5.1 Computational Procedures

In a simple random sample, the mean is estimated as

$$
\begin{equation*}
x_{s r s}=\sum x i / n \tag{1}
\end{equation*}
$$

Only the numerator is subject to sampling error; the denominator (the sample size) is taken as a fixed constant. In more complex sample designs, the mean is estimated as a ratio of estimates; for the High School and Beyond survey, the ratio is

$$
\begin{equation*}
r=\frac{\sum \sum \sum y_{h i j}}{\sum \sum x_{h i}}=y / x \tag{2}
\end{equation*}
$$

in which

$$
\left.\begin{array}{rl}
y_{h i j}= & \text { the weighted value for student } j \\
& \text { from school i in stratum } h,
\end{array}\right\} \begin{aligned}
x_{h i}= & \text { the estimated size of school in in } \\
& \text { stratum } h .
\end{aligned}
$$

The numerator ( $y$ ) represents an estimate of the population total; the denominator ( $x$ ), an estimate of the population size. When cluster sizes (i.e., school sizes) are unequal, the overall sample size will fluctuate depending on which clusters are selected. For the same reason, the estimates of the population size will show sampling fluctuation. Thus, for a ratio estimator; both the numerator and the denominator are subject to sampling error.

Kish and Frankel ${ }^{1}$ distinguish three major approaches to the computation of standard errors for statistics based on complex designs where ratio estimators must be used: Taylor Series, balanced repeated replication (BRR), and jackknife repeated replication (JRR).

Taylor Series estimation. It can be shown ${ }^{2}$ that the variance of $r$ (i.e., the square of the standard error of $r$ ) is

$$
\begin{equation*}
E(r-R)^{2}=E\left[\left(\frac{(d y-R d x)^{2}}{x^{2}}\right) \cdot(1+d x / X)^{2}-1\right] \tag{3}
\end{equation*}
$$

in which

$$
\begin{aligned}
E(r-R)^{2}= & \text { the expected value of the squared } \\
& \text { difference between the population } \\
& \text { parameter } R \text { and the sample estimate } r \\
d y= & \text { the difference between the sample } \\
& \text { estimate } y \text { and the population value } Y \\
X= & \text { the population size }
\end{aligned}
$$

$\mathrm{dx}=$ the difference between the sample estimate of the population size, $x$, and the population size $X$.

If the term involving one plus the relative error of $x$ is ignored (i.e., $d x / X$ is negligible), it can be shown that (3) reduces to:

$$
\begin{equation*}
E(r-R)^{2}-1 / X^{2}\left(\operatorname{Var}_{y}+R^{2} \operatorname{Var}_{x}-2 R \operatorname{Cov}_{x y}\right) \tag{4}
\end{equation*}
$$

in which

$$
\begin{aligned}
& \operatorname{Var}_{y}=\text { the variance of } y \\
& \operatorname{Var}_{x}=\text { the variance of } x \\
& \operatorname{Cov}_{x y}=\text { the covariance of } x \text { and } y
\end{aligned}
$$

All the terms in equation (4) can be estimated from sample data (e.g., r would take the place of $R$, $x$ the place of $X$, and so forth). The variance terms are estimated by the variation of primary selection means around the stratum mean. Sampling statisticians have offered several rationales for the use of equation (4) as an approximation of (3). One line of argument ${ }^{3}$ makes use of a standard approximation technique, called Taylor Series approximation, which gives this approach its name.

Balanced repeated replication (BRR). The replication approach was originally developed by Deming. ${ }^{4}$ The principle underlying replicated sampling is quite simple. If a sample of size $n$ is desired, $g$ independent replicate samples are selected, each of size $\mathrm{n} / \mathrm{g}$. The variation among estimates from each replicate can be used to estimate the variance of estimates based on the entire sample.

Balanced repeated replication extends the principle of replication. It is usually applied to stratified designs with two primary selections per stratum. By choosing one primary selection from each stratum, a halfsample is created; the unselected primary units form another half-sample. In a design with $h$ strata, a total of $2^{(h-1)}$ different pairs of halfsamples can be formed in this fashion. Each pair is referred to as a replicate. It is customary to form only a portion of the possible replicates using an orthogonal balanced design.

For any given replicate, estimates such as the ratio means can be computed from each half-sample. Then the sampling variance for the overall statistic ( $r$ ) can be estimated in any of several ways. ${ }^{5}$ One method compares the estimate from one halfsample with the overall estimate:

$$
\begin{equation*}
\operatorname{Var}_{k}(r)=\left(r_{1 k}-r\right)^{2} \tag{5}
\end{equation*}
$$

in which

$$
\begin{aligned}
\operatorname{Var}_{k}(r)= & \text { the variance estimate based on } \\
& \text { replicate } k, \\
r= & \text { an estimate of } R \text { based on the entire } \\
& \text { sample, and } \\
r_{1 k}= & \text { an estimate of } R \text { based on one of the } \\
& \text { half-samples from replicate } k .
\end{aligned}
$$

The final estimate for the variance of $r$ is the average of $\operatorname{Var}_{k}$ (r) across all the replicates. The estimate $x$ need not be a ratio mean; the logic of BRR applies to any type of estimate, giving the method its broad generality.

Jackknife repeated replicarion (JRR). Equation (5) shows that the variance of a sample statistic can be estimeted using data from a portion of the sample, that is from a single half-sample. Jackknifing is a generalization of this idea. Estimates of variance can be obtained from subsamples of a single original sample with a technique known as jackknifing.

Franke1 ${ }^{6}$ has shown how jackknifing can be used with complex stratified samples. Again this assumes a design with two primary selections in each stratum. For a particular stratum, the variance can be estimated:

$$
\begin{equation*}
\operatorname{Var}_{h}=\left(r_{1 h}-r_{h}\right)^{2} \tag{6}
\end{equation*}
$$

in which
$r_{1 h}=a n$ estimate based on one of the primary selections from stratum $h$, and
$r_{h}$ the corresponding estimate based on both primary selections from the stratum.

The estimated variance for the entire sample is just the sum of the estimated strata variances. With JRR, each "replication" represents the contribution of a single stratum to the variance of estimates from the entire sample.

Comparison of the methods. In the base year survey, NORC provided standard errors for sample statistics, using a program based on the Taylor Series approach. Prior to the first follow-up survey, NCES (now CES) acquired a program that computes BRR standard error estimates. BRR programs were used to compute standard errors for statistics derived from the first and second follow-up data sets.

BRR assumes a design with two primary selections per stratum. Although the High School and Beyond sample is stratified, each of the
original strata includes more than two primary selections (the primary selections in this case were high schools or students at high schools that came into the sample with certainty). In order to meet the assumptions of $B R R$, the original 26 school strata were divided into 90 "computing" strata. Within each computing stratum, the primary selections were randomly divided into two groups, which were treated as "pseudoprimaries." The BRR program thus treats the sample as though it included two primary selections from each of 98 strata.

Previous empirical investigation ${ }^{9}$ indicated that Taylor Series, $B R R$ and JRR gave comparable results, although BRR standard error estimates consistently gave more accurate significance levels for t-statistics. Nonetheless, a comparison of Taylor Series and BRR standard error estimates was undertaken in order to assure that standard errors from the base year and first follow-up surveys could be interpreted in the same way. The comparison showed no appreciable differences between the Taylor Series and BRR standard error estimates. 10

### 5.2 Design Effects

No matter which method is used to estimate the standard errors for second follow-up statistics, the standard errors will be different from standard errors calculated on the assumption that the data are from a simple random sample. Like most national samples, the High School and Beyond sample is not a simple random sample; it departs from the model of simple random sampling in three major respects: the selections are clustered by school, major subgroups (such as private school students) are deliberately overrepresented in the sample, and the selections are stratified by school type. (The sample design is summarized in chapter 3, above.) Each of these departures from simple random sampling has a predictable impact on the standard errors of sample estimates. The variance of a statistic from a complex sample can be represented as the product of four factors:

$$
\begin{equation*}
\operatorname{Var}(x)=\operatorname{Var}_{\text {srs }} x \text { Cluster } x \text { Strat } x \text { Disprop } \tag{7}
\end{equation*}
$$

in which
$\operatorname{Var}(X)=$ the actual variance of a sample estimate,
$V_{\text {Vrs }}=$ the estimate variance that would be obtained if the sample were treated as a simple random sample, and

Cluster, Strat, Disprop = factors representing the impact of clustering, stratification, and disproportionate sampling.

Var ( $x$ ) can be estimated from sample data using any of the techniques considered earlier.

The ratio of Var ( $X$ ) to $\mathrm{Var}_{\mathrm{srs}}$ is commonly referred to as the design effect (DEFF).

In many cases, it is more useful 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 estimate from a simple random sample:

$$
\begin{align*}
\text { DEFT } & =\left(\text { DEFF }^{1 / 2}\right.  \tag{8}\\
& =\left(\operatorname{Var}(X) / \operatorname{Var}_{\text {srs }}\right)^{1 / 2} \\
& =\operatorname{se}(X) / \mathbf{s e}_{\text {srs }}
\end{align*}
$$

The mean design effects given in tables 5.3-1a through 5.3-5b can be used to calculate approximate standard errors for other estimates not included in the tables. For example, for proportions, the simple random sample variance is just

$$
\begin{equation*}
=p(1-p) / n \tag{9}
\end{equation*}
$$

in which $\quad p=$ the estimated proportion, and
$n$ the number of cases with non-missing data,
and so the standard error of proportion can be estimated using the square root of the expression in (9) times the mean root design effect (DEFT):

$$
\begin{equation*}
S E=\operatorname{DEFT}(p[1-p] / n)^{1 / 2} \tag{10}
\end{equation*}
$$

Similarly, the standard error of a change in proportion can be calculated as the mean DEFT times the square root of the weighted variance of the change scores:

$$
\begin{equation*}
S E=\operatorname{DEFT}(W T V A R / n)^{1 / 2} \tag{11}
\end{equation*}
$$

in which

$$
\begin{aligned}
\text { WTVAR }= & \text { weighted variance of the individual change } \\
& \text { scores, } \\
n= & \text { unweighted number of valid observations, and } \\
D E F T= & \text { mean of the root design effects for change } \\
& \text { estimates. }
\end{aligned}
$$

The appropriate weight to use in calculating the variance for change estimates using the base year through third follow-up survey data is the panel weight (PANELWT4). The appropriace values of DEFT to use for inflating standard errors based on simple-random-sampling calculations are discussed below.

### 5.3 Standard Errors and Design Effects

This section presents several sets of standard errors and design effects calculated on data from all four waves. Standard errors and design effects pertain to proportions of a sample who had specified characteristics. (See Appendix $C$ for standard errors and design effects that were calculated using third follow-up variables.)

### 5.3.1 Base-year and First Follow-Up

Table 5.3-1a displays standard errors and design effects for the sophomore cohort for 30 proportions and seven averages based on weighted data from the first follow-up questionnaires and tests. The mean root design effect for the 37 statistics is 1.8 , which is somewhat higher than the root design effect observed for the base year survey ${ }^{11}$. The reason for the difference is that the sample of sophomores for the first followup was a disproportionate subsample from the base year sample. Although most of the base year sophomore sample were retained (with certainty) for the first follow-up, several groups were subsampled. In particular, base year nonparticipants who dropped out of school prior to the first followup survey (approximately 500) cases, was subsampled at a rate of only $10 \%$; the mean first follow-up survey weight for this group is about 15 rimes larger than the mean weight for the rest of the cohort sample. The variability of the weights due to disproportionate subsampling and higher nonresponse among dropouts reduces the efficiency of the sample and causes the increase in the design effects.

Table 5.3-1b displays standard errors and design effects for the senior cohort using the first follow-up questionnaire data and the first follow-up weights. The mean root design effect for the 30 proportions is 1.6. This is the same as the mean (1.6) found for the base year survey using Taylor Series estimation procedures rather than BRR. The sample of seniors for the follow-ups differs from the base year senior sample in several key respects. First of all, the sample is much smaller ( 11,995 selected cases versus 34,982 ), which means that the average cluster size (selections per school) is much smaller. Reducing the cluster size should increase the efficiency of the sample. However, the first follow-up sample of seniors represents some population subgroups even more disproportionately than did the base year sample; this greater disproportionality decreases the efficiency of the follow-up sample by introducing additional variability into the weights. Apparently, the effects of the reduced cluster size and the increased disproportionality offset each other--the base year and the follow-up samples exhibit similar mean design effects.

Table 5.3-2a displays estimates for the base year sophomore sample using data from base year participants who were selected for the first follow up sample. The questionnaire items in table 5.3-2a are identical to those in table 5.3-1a but the estimated proportions and standard errors are based on responses to these items in the base year sophomore questionnaire. For the most part, these items were repeated verbatim in the first follow-up questionnaire; in one case, however, response options were reordered in the follow-up questionnaire. As table 5.3-2a shows, the mean DEFT is 1.643, a value that differs little from the analogous figure calculated during the base year (1.651). The mean DEFT in table 5.3-2a is lower than the mean in table 5.3-1a (1.6 vs. 1.8), because, as noted earlier, the estimates for the follow-up sophomore sample are less efficient than estimates for the base year sophomores.

Table 5.3-2b displays estimates for the base year senior sample using only data from base year participants who were selected for the first follow-up sample. The questionnaire items in table 5.3-2b are identical to those in table 5.3-1b, but the estimated proportions and standard errors are based on responses to these items in the base year senior questionnaire. For the most part, these items were repeated verbatim

Table 5.3-1a
Standard Errors and Design Effects Associated with Estimated Proportions of First follow-Up Sophomores Who Had Specified Characteristics, Using fU1WT

| Statistic. | Item <br> Nunber* | Estimate | SE | DEFF | DEFT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Proportions |  |  |  |  |  |
| In vocational progran | 2 | 0.270 | 0.007 | 6.922 | 2.631 |
| Horked last week | 24 | 0.532 | 0.005 | 2.804 | 1.675 |
| Working at clerical job | 29 | 0.250 | 0.005 | 3.080 | 1.755 |
| Current job is place where people goof off | 33A | 0.132 | 0.004 | 2.958 | 1.720 |
| Work more enjoyable than school | 33C | 0.513 | 0.005 | 2.149 | 1.466 |
| Job encourages good work habits | 330 | 0.789 | 0.004 | 2.184 | 1.454 |
| Father non-professional | 53A | 0.887 | 0.005 | 6.276 | 2.506 |
| Father finished callege | 55 | 0.213 | 0.007 | 7.040 | 2.653 |
| Mother finished college | 56 | 0.136 | 0.005 | 5.374 | 2.318 |
| Watch more than one hour of TV per day | 61 | 0.791 | 0.003 | 1.480 | 1.217 |
| Career success important | 73A | 0.860 | 0.003 | 1.960 | 1.400 |
| Having lots of money not important | 73C | 0.103 | 0.003 | 2.549 | 1.597 |
| Important to be a leader in cormunity | $73 F$ | 0.476 | 0.006 | 3.748 | 1.936 |
| Important to live close to parents | 73H | 0.707 | 0.005 | 3.147 | 1.774 |
| Having leisure time not important | 731 | 0.017 | 0.001 | 1.552 | 1.246 |
| Have a positive attitude toward self | 75A | 0.932 | 0.002 | 1.564 | 1.250 |
| Good luck more important than hard work | 758 | 0.127 | 0.003 | 1.986 | 1.409 |
| Believe sameone or sommthing prevents success | 75 E | 0.256 | 0.005 | 3.122 | 1.767 |
| Bel feve plars hardly gver work oust | 75 F | 0.199 | 0.004 | 2.434 | 1.560 |
| Have little co be proud of | 731 | 0.126 | 0.003 | 1.992 | 9.411 |
| Working to correct inequalities important | 73. | 0.396 | 0.004 | 1.738 | 1.318 |
| No sericus trouble with law | 76A | 0.848 | 0.003 | 4.845 | 2.204 |
| Expect to finish fuli-time education | 80 | 0.382 | 0.007 | 5.288 | 2.300 |
| Hould be satisfied with leas than college ed. | 82 | 0.764 | 0.006 | 4.693 | 2.166 |
| Seen by ochers as physically unattractive | 76 | 0.803 | 0.003 | 2.480 | 1.575 |
| Married | 97A | 0.035 | 0.002 | 2.883 | 4.698 |
| Expect first child by age 25 | 978 | 0.538 | 0.005 | 2.404 | 9.550 |
| Expeet to have own home of apt. by age 24 | 970 | 0.921 | 0.002 | 1.326 | 1.151 |
| Expect to have no children | 98. | 0.089 | $0.003$ | 2.706 | 1.645 |
| Hard of hearing | 103C | 0.019 | 0.001 | 1.472 | 1.243 |
| Averages |  |  |  |  |  |
| Vocabulary score |  | 10.387 | 0.085 | 5.776 | 2.403 |
| Reading score |  | 7.657 | 0.072 | 5.217 | 2.284 |
| Math, part I score |  | 10.820 | 0.143 | 7.407 | 2.722 |
| Mathi part 2 score |  | 2.736 | 0.048 | 5.031 | 2.243 |
| Science scare |  | 9.475 | 0.073 | 5.869 | 2.443 |
| Writing score |  | 9.503 | 0.074 | $4.993$ | 2.234 |
| Civics score |  | 5.464 | 0.037 | 4.326 | 2.080 |
| Mean (Propoptions only) |  |  |  | 3.136 | 1.719 |
| Mean (All scatistics) | . |  |  | 3.589 | 1.837 |
| Minimam |  |  |  | 1.326 | 1.151 |
| Maximm |  |  |  | 7.407 | 2.722 |
| Scanderd Deviation |  |  |  | 9.804 | 0.470 |

* First follow-up questionnaire number.

Table 5.3-1b
Standard Errors and Design Effects Associated with Estimated Proportions of First follow-Up Seniors Who Had Specified Characteristics, Using FU1HT

| Statistic | Item Number* | Estimate | SE | DEFF | DEFT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hard of hearing | $83-\mathrm{c}$ | . 012 | . 001 | . 890 | . 943 |
| Having leisure time not important | 85-1 | . 013 | . 001 | . 802 | . 896 |
| Have physieal handicep | 84 | . 070 | . 003 | 1.487 | 1.220 |
| Hove little to be proud of | 75-1 | . 087 | . 004 | 2.085 | 1.444 |
| Expeet to have no children | 61 | . 098 | . 004 | 1.880 | 1.371 |
| itwor more sibl ings in high school | 73 | . 099 | . 003 | 1.079 | 1.039 |
| Good luck more important than hard work | 75-b | .900 | . 004 | 1.802 | 1.342 |
| Expect to get married | 15-8 | . 107 | . 006 | 3.963 | 1.991 |
| Expect to finish full-time echucation | 15-e | .136 | . 006 | 3.182 | 1.782 |
| Mother finished college | 21 | . 142 | . 009 | 7.161 | 2.676 |
| Believe plans hardly ever work out | 75-f | .143 | . 005 | 2.058 | 1.435 |
| Having lots of money not important | 85-c | . 147 | . 004 | 1.362 | 1.167 |
| Current job is place where people goof off | 25-a | . 182 | . 006 | 1.906 | 1.381 |
| Believe someone/something prevents success | $75 \cdot \mathrm{e}$ | . 216 | . 006 | 2.111 | 1.453 |
| Father finished college | 20 | . 227 | . 010 | 5.918 | 2.433 |
| Planning professional career | $16 \cdot 0$ | . 260 | . 006 | 2.064 | 1.437 |
| Sibling in college | 72 | . 372 | . 007 | 2.244 | 1.498 |
| Have started first job | $15 \cdot 6$ | . 420 | . 009 | 3.483 | 1.866 |
| Important to be a leader in community | 85-f | . 465 | . 007 | 2.084 | 1.444 |
| Plen to finish college | 12 | . 486 | . 011 | 4.612 | 2.148 |
| Expect first child by age 25 | 15-6 | . 489 | . 090 | 4.102 | 2.025 |
| Work more enjoyable then school | 25-b | . 513 | . 008 | 2.011 | 1.418 |
| Would be satisfied with less than college ed. | 13 | . 629 | . 011 | 5.291 | 2.300 |
| Working to correct inequalities important | 85.j | . 670 | . 007 | 2.345 | 1.531 |
| Wetch more than one hour of TV per day | 76 | . 778 | . 007 | 3.167 | 1.780 |
| Career success important | 85-a | . 829 | . 005 | 1.890 | 1.375 |
| Job encourages good work habits | 25-c | . 858 | . 005 | 1.804 | 1.343 |
| Have ability to finish college | 14 | . 867 | . 005 | 2.355 | 1.535 |
| Expect to have own home or apt. by age 24 | 15-d | . 916 | . 004 | 2.203 | 1.484 |
| Have a positive attitude toward self | 75-a | . 949 | . 003 | 1.923 | 1.387 |
| Mean |  |  |  | 2.642 | 1.571 |
| Minimum |  |  |  | . 802 | . 896 |
| Maximam Standard Deviation |  |  |  | 7.161 | 2.676 |
| Standard Deviation |  |  |  | 1.499 | . 423 |

[^0]Table 5.3-2a
Standard Errors and Design Effects Associated with Estimated Proportions and Âverages of First follow-Up Sophomores Who Had Specified

Characteristics, Using Base Year Weights

| Statistics | Item Humber* | Estimate | SE | DEFF | DEFT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Proportions |  |  |  |  |  |
| in vocational program | 1 | 0.292 | 0.006 | 5.705 | 2.389 |
| Horked last meek | 24 | 0.382 | 0.005 | 2.901 | 1.703 |
| Horking at elerical job | 27 | 0.082 | 0.003 | 2.649 | 1.628 |
| Current job is place where people goof off | 30 A | 0.863 | 0.003 | १.356 | 1.164 |
| Hork more enjoyable than school | 30 C | 0.557 | 0.006 | 3,050 | 1.746 |
| Job encourages good sork habits | 300 | 0.722 | 0.003 | 0.945 | 0.972 |
| Father non-professional | 38 | 0.883 | 0.004 | 3.182 | 1.784 |
| Father finished college | 39 | 0.225 | 0.007 | 5.308 | 2.304 |
| Mother finished college | 42 | 0.139 | 0.005 | 4.508 | 2.123 |
| Watch more than one hour of TV per day | 48 | 0.909 | 0.003 | 2.896 | 1.702 |
| Career success important | 61A | 0.850 | 0.003 | 1.846 | 1.359 |
| Having lots of money not important | 61 C | 0.102 | 0.003 | 2.556 | 1.599 |
| Important to be a leader in community | 617 | 0.539 | 0.005 | 2.578 | 1.606 |
| Important to live close to parents | 614 | 0.749 | 0.004 | 2.200 | 1.483 |
| Hevire leisure time not important | 731 | 0.022 | 0.009 | 1.189 | 9.091 |
| Heve mestive atticude toward self | 62A | 0.909 | 0.002 | 1.138 | 1.066 |
| cood luek more important than hard work | 628 | 0.155 | 0.003 | 1.612 | 1.270 |
| Beligye someene or something prevents suciess | 62E | 0.301 | 0.004 | 1.736 | 9.317 |
| Batieve plane hardly over work out | 62 | 0.221 | 0.004 | 2.190 | 9.480 |
| Heve lietle so be proud of | 621 | 0.156 | 0.003 . | 1.623 | 9.274 |
| Working to correct inequalities important | 618 | 0.363 | 0.003 | 9.003 | 1.001 |
| No serious trouble with law | 678 | 0.944 | 0.002 | 1.944 | 1.394 |
| Expect to finish full-time education | 69 | 0.397 0.800 | 0.006 | 3.916 3.943 | 1.979 |
| Seen by others as physically unattractive | 67 C | 0.800 0.166 | 0.003 | 3.943 1.606 | 1.986 |
| Married | 78 A | 0.003 | 0.000 | -. | - |
| Expect first child by age 25 | 788 | 0.583 | 0.004 | 1.563 | 1.250 |
| Expect to have oun home or apt. by age 24 | 780 | 0.929 | 0.002 | . 469 | 1.212 |
| Expect to have no children | 80 | 0.101 | 0.003 | 2.458 | 1.568 |
| Hard of hearing : | 88 C | 0.024 | 0.009 | 1.034 | 1.017 |
|  |  |  |  |  |  |
| Vocabulary score |  | 8.479 | 0.068 | 4.070 | 2.017 |
| Reeding score |  | 6.649 | 0.060 | 4.025 | 2.006 |
| Matho pert 1 score |  | 9.801 | 0.116 | 5.646 | 2.376 |
| Math, part 2 score Science score |  | $2.49 \%$ 8.77 | 0.039 0.069 | 5.948 5.540 | 2.269 2.354 |
| Science score Writing score |  | 8.777 | 0.069 0.070 | 5.540 | 2.354 |
| civies score |  | 4.479 | 0.039 | 5.182 | 2.276 |
| Meen (Proportions only) |  |  |  | 2.487 | 1.508 |
| Mean (All statisties) |  |  |  | 2.895 | 1.643 |
| Minimum |  |  |  | . 945 | . 972 |
| Maximun |  |  |  | 5.705 | 2.389 |
| Standard Deviation |  |  |  | 1.523 | . 448 |

* Base year questiomaire nunber.

Table 5.3-2b
Standard Errors and Design:Effects Associated With Estimated Proportions of First Follow-Up Seniors tho Had Specified Characteristics, Using BYWT

| Statistic | Item Number* | Estimate SE |  | DEFF | DEFT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Herd of hearing | B8087c | . 018 | . 002 | 2.404 | 1.551 |
| Heving leisure time not important | 日8057 | . 021 | . 002 | 2.184 | 1.478 |
| Have physical handicap | 88088 | . 054 | . 003 | 1.932 | 1.390 |
| Heve little so be proud of | B8058L | . 196 | . 005 | 2.563 | 1.601 |
| Expect to have no children | -18082 | . 098 | . 005 | 3.037 | 1.743 |
| Two or more siblings in high school | EB099 | . 141 | . 005 | 2.222 | 1.491 |
| Good luck more important than hard work | 88058B | . 121 | . 004 | 1.573 | 1.254 |
| Expect to get married | 880814 | . 010 | . 002 | 4.300 | 2.074 |
| Expect to finish full-time education | B8081E | . 013 | . 001 | 0.844 | 0.919 |
| Mother finished college | B8042 | . 148 | . 008 | 4.915 | 2.217 |
| Believe plans hardly ever work out | B8058F | . 188 | . 006 | 2.434 | 1.560 |
| Having lots of money not important | B8057C | . 116 | . 005 | 2.710 | 1.646 |
| Current job is place where people goof off | bB027a | . 169 | . 005 | 1.667 | 1.291 |
| Believe someone or something prevents success | B8058E | . 236 | . 007 | 2.763 | 1.662 |
| Father finished college | B8039 | . 245 | . 011 | 5.461 | 2.337 |
| Planning professional career | 88062 | . 269 | . 005 | 8.390 | 1.179 |
| Sibling in coltege | EB098 | . 314 | . 007 | 2.443 | 1.563 |
| Have started first job | B80816 | . 170 | . 005 | 1.868 | 1.367 |
| Impertant to be a leader in commnity | 88057F | . 510 | . 008 | 2.815 | 1.678 |
| Plon to finish college | 88065 | . 457 | . 009 | 3.646 | 1.909 |
| Expect first child by age 23 | 880818 | . 53 | . 010 | 4.151 | 2.038 |
| Hork more enjoyable then school | 8B027C | . 515 | . 007 | 1.850 | 1.360 |
| Hould be satisfied with less than college ed. | 88067 | . 713 | . 009 | 4.329 | 2.081 |
| Working to eorreet inequal ities important | 88057」 | . 610 | . 008 | 2.969 | 1.723 |
| Hotch more than one hour of TV per day | 88048 | . 848 | . 006 | 3.150 | 1.775 |
| Career success important | 8B057A | . 880 | . 004 | 1.695 | 1.302 |
| Job encourages good work habits | B80270 | . 787 | . 006 | 2.104 | 1.450 |
| Have ability to finish college | 88069 | . 803 | . 005 | 1.744 | 1.321 |
| Expect to have own home or apt, by age 24 | 880810 | . 913 | . 004 | 2.123 | 1.457 |
| Have a positive attitude toward self | B8058A | . 908 | . 006 | 4.564 | 2.136 |
| Mean |  |  |  | 2.728 | 1.618 |
| Minimum |  |  |  | 0.844 | 0.919 |
| Maximum |  |  |  | 5.461 | 2.337 |
| Standard Deviation |  |  |  | 1.136 | 0.336 |

[^1]in the first follow-up questionnaire; three of them, however, had an additional response option in the first follow-up questionnaire. As table $5.3-2 b$ shows, the mean design effect is 1.618 , a value that differs little from the analogous figure calculated during the base year.

Tables 5.3-3a and 5.3-3b display standard errors and design effects for changes in 30 proportions and, for sophomores, changes in seven test scores (Table 5.3-3a only). The statistics are based only on those students who participated in both the base year and the first follow-up survey and the changes refer to differences between base year and first follow-up responses.

The change statistics in tables 5.3-3a and 5.3-3b were computed by taking the weighted mean of the changes shown by each respondent who participated in both the base year and first follow-up surveys. The standard errors (and design effects) thus reflect the fact that whether a respondent was, for example, hard of hearing during the base year is correlated with his or her being hard of hearing during the first followup. The change estimates were calculated using individual change scores of sample members who participated in both the base year and first followup. Thus, the standard errors for these estimates take into account the correlation between base year and first follow-up respondents. The change estimates are directional: a negative estimate indicates that fewer respondents fell into the category of interest (e.g., hard of hearing) during the first follow-up survey; a positive estimate indicates that more respondents fell into the category. The mean DEFT in table 5.3-3a are lower than those for tables 5.3-1a and 5.3-2a (1.4 vs 1.8 and 1.6). Similarly mean DEFTs in table 5.3-3b are lower than those for tables 5.31b and 5.3-2b ( 1.5 vs 1.6 ). This probably reflects the observed tendency of more complex statistical estimates (such as change estimates, correlation or regression coefficients) to exhibit smaller design effects than simple estimates.

### 5.3.2 Second Follow-up

Tables 5.3-4a and 5.3-4b display the estimated percentages, standard errors, DEFFs, and DEFTs for variables from the second follow-up survey data. (As oniy ten of the thirty non-test items presented in the preceding tables were included in the second follow-up survey questionnaire, twenty additional items, representing estimated proportions of varying magnitudes, were added to this table). For sophomores, the mean DEFT for the thirty estimated percentages from the second follow-up survey is 1.54 , a smaller figure than observed for the first follow-up and about equal to that for the base year. For seniors, the mean DEFT is 1.68, which is larger than the mean DEFT observed for the first two waves. For both cohorts, the variability of the design effects appears to be somewhat smaller than for either of the previous survey waves.

Table 5.3-3a
Standard Errors and Design Effects Associated with Changes (between Base Year and First Follow-Up) in the Proportions and Averages of First follow-Up Sophomores tho Had Specified Characteristics, Using First Follow-Up Weights

| Statistic | Change |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Estimate | SE | DEFF | DEFT |
| Proportions |  |  |  |  |
| In yocational progran | 0.054 | 0.004 | 1.646 | 1.283 |
| Horked last week | 0.977 | 0.005 | 1.651 | 1.285 |
| Werking at clepical job | 0.968 | 0.005 | 2.033 | 1.426 |
| Cuprent job is place where people goof off | -0.033 | 0.004 | 1.184 | 1.088 |
| Work more enjoyable than school | -0.046 | 0.006 | 1.487 | 1.220 |
| Job encourages good work habits | 0.077 | 0.005 | 1.356 | 1.165 |
| Father non professional | 0.002 | 0.002 | 0.952 | 0.976 |
| Father finished college | -0.001 | 0.002 | 1.242 | 1.114 |
| Mother finished college | -0.002 | 0.002 | 1.601 | 1.265 |
| Watch more than one hour of TV per day | -0.116 | 0.003 | 1.193 | 1.092 |
| Career success important | 0.009 | 0.004 | 1.925 | 1.387 |
| Having lots of money not important | 0.000 | 0.003 | 1.577 | 1.256 |
| Important to be a leader in commmity | -0.057 | 0.005 | 1.751 | 1.323 |
| importent to live close to parents | -0.046 | 0.005 | 2.130 | 1.460 |
| Having leisure tins not important | -0.006 | 0.002 | 2.779 | 1.667 |
| Heve a positive attitude toward self | 0.027 | 0.003 | 1.801 | 1.342 |
| cood luek more important than hard work | -0.030 | 0.004 | 2.087 | 1.445 |
| Believe sorreone or something prevents success | -0.047 | 0.005 | 1.810 | 1.345 |
| Believe plant hardly ever work out | -0.026 | 0.004 | 1.413 | 1.189 |
| Have little to be proud of | -0.036 | 0.004 | 1.833 | 1.354 |
| Working to correct inequalities important | 0.033 | 0.005 | 1.608 | 1.268 |
| No serious trouble with law | 0.007 | 0.002 | 1.405 | 1.185 |
| Expect to finish full-time ecucation | -0.029 | 0.004 | 1.728 | 1.315 |
| Hould be satisfied with less than college ed. | -0.059 | 0.004 | 1.937 | 1.392 |
| Seen by others as physically unattractive | -0.063 | 0.004 | 2.081 | 1.443 |
| Married | 0.035 | 0.002 | 2.198 | 1.483 |
| Expect first child by age 25 | -0.037 | 0.005 | 1.613 | 1.270 |
| Expect to have own home or apt. by age 24 | -0.008 | 0.003 | 1.655 | 1.286 |
| Expect to have no children | -0.020 | 0.004 | 3.026 | 1.740 |
| Hard of hearing | -0.004 | 0.002 | 3.338 | 1.827 |
| Averages |  |  |  |  |
| Vocabulary score | 2.070 | 0.040 | 2.816 | 1.678 |
| Reading score | 1.177 | 0.026 | 1.145 | 1.070 |
| Math, part 1 score | 1.352 | 0.053 | 2.541 | 1.594 |
| Math, part 2 score | 0.317 | 0.024 | 1.926 | 1.388 |
| Science score | 0.884 | 0.033 | 2.064 | 1.430 |
| Writing score | 1.603 | 0.044 | 2.871 | 1.695 |
| Civies score | 1.056 | 0.035 | 3.451 | 1.858 |
| Mean (Proportions only) |  |  | 1.801 | 1.330 |
| Mean (All statistics) |  |  | 1.945 | 1.368 |
| Minimum | - |  | . 952 | . 976 |
| Mexinum |  |  | 3.459 | 1.858 |
| Standard Deviation |  |  | . 611 | . 213 |

Standard Errors and Design Effects Associated with Changes (between Base Year and First Follow-Up) in the Proportion of First Follow-Up Seniors tho Had Specified Characteristics

| Statistic | Change Estimate | SE | DEFF | DEFT |
| :---: | :---: | :---: | :---: | :---: |
| Hared of hearing | -.006 | . 002 | 2.060 | 1.4335 |
| Heving leisure time not important | -.009 | . 002 | 1.408 | 1.187 |
| Have physical handicap | +0015 | . 005 | 2.435 | 1.560 |
| Heve little to be prosd of | - 026 | . 005 | 1.520 | 1.233 |
| Expect to have no children | -. 004 | . 005 | 1.978 | 1.407 |
| Two or more siblings in high school | -. 043 | . 005 | 1.844 | 1.358 |
| Good luck more important than hard work | - 022 | . 005 | 1.588 | 1.260 |
| Expect to get married | +.095 | . 005 | 2.676 | 1.636 |
| Expect to finish full-time education | +. 116 | . 005 | 1.949 | 1.396 |
| Mother finished college | -. 001 | . 004 | 2.988 | 1.729 |
| Believe plens hardly ever work out | $\therefore .047$ | . 006 | 1.578 | 1.256 |
| Havire lots of meney not important | -0030 | . 008 | 4.978 | 2.044 |
| Cuprent job is place where people goof off | \$. 015 | . 008 | 1.693 | 1.301 |
| Believe soneone or scamthing prevents success | -. 026 | . 008 | 2.316 | 1.522 |
| Father finished college | +002 | . 004 | 2.894 | 1.701 |
| Plaming professiondl career | -010 | . 006 | 1.395 | 1.181 |
| sibling in college | +0067 | . 010 | 3.323 | 1.823 |
| Have stapted first job | +. 267 | . 008 | 1.977 | 1.406 |
| Important to be a leader in community | $\bigcirc 040$ | . 008 | 2.955 | 1.468 |
| Plan to finish college | -. 005 | . 006 | 1.998 | 1.414 |
| Expect first child by age 25 | -. 032 | . 007 | 1.433 | 1.197 |
| Work more enjoyable than school | -. 010 | . 010 | 1.653 | 0.126 |
| Hould be satisfied with less than college ed. | $\therefore .079$ | . 006 | 1.720 | 1.312 |
| Horking to correct inequalities important | *.062 | . 010 | 2.945 | 1.707 |
| Watek more than one hour of TV per day | - 087 | . 007 | 2.207 | 1.486 |
| Career success important | -. 047 | .007. | 2.613 | 1.617 |
| Job encourages good work habits | +.060 | . 008 | 1.892 | 1.376 |
| Have ability to finish college | +.066 | . 006 | 2.354 | 1.534 |
| Expect to have oun hone or apt. by age 24 | +. 003 | . 006 | 2.690 | 1.640 |
| Have positive attitude toward self | +.043 | . 005 | 2.445 | 1.554 |
| Mean |  |  | 2.195 | 1.468 |
| Minimum |  |  | 1.395 | 1.181 |
| Mжximm |  |  | 4.178 | 2.044 |
| Stanclard Deviation |  |  | 0.640 | 0.207 |

Estimated Percentages, Standard Errors and Design Effects in the Percentages of the Second Follow-Up Sophomores Who Had Specified Characteristics (Weight=FU2WT)

| Statistic | § ten <br> Number | Estimate | SE | DEFF | DEF |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Horking full time, Feb ' 84 | SY3A | 58.51 | 0.67 | 2.53 | 1.59 |
| Taking academic courses, Feb '84 | sr36 | 33.61 | 0.81 | 4.00 | 2.00 |
| Looking for work, Feb '84 | 5731 | 9.96 | 0.35 | 1.86 | 1.36 |
| Currently married | SY56 | 12.31 | 0.47 | 2.77 | 1.66 |
| Have one or more children | SY65A | 11.80 | 0.43 | 2.18 | 1.48 |
| Expect to have 3 or more children | SY64 | 33.92 | 0.55 | 1.78 | 1.33 |
| Have served on military active duty | SY43 | 6.21 | 0.35 | 2.80 | 1.67 |
| If in PSE '82-184: Earned no degree | SY18i,J-201, J | 70.40 | 0.64 | 1.35 | 1.16 |
| If in PSE '82-184: Earned vocational degree | SY181, J-201, J | 1.11 | 0.14 | 1.23 | 1.11 |
| if in PSE '82-184: Earned 4-year college degree | 3Y18i, J-20\%, ${ }^{\text {d }}$ | 1.47 | 0.21 | 2.14 | 1.46 |
| Enrolled in postsecondary education, oct '82 | PSEOC82 | 44.68 | 0.70 | 2.67 | 1.63 |
| Enrolled in postsecondary education, oct ${ }^{\text {d }}$ g | PSECCE3 | 42.78 | 0.79 | 3.43 | 1.85 |
| If Employed: In clerical occupation, oct '83 | SY46A-49A | 24.65 | 1.33 | 2.02 | 1.42 |
| Employed, 0ct 183 | J0850c83 | 66.57 | 0.63 | 2.37 | 1.54 |
| Have used pocket calculator | SY8A2-A4 | 90.71 | 0.39 | 2.42 | 1.56 |
| Have used computer terminal | SY8B2-84 | 47.49 | 0.74 | 2.77 | 1.66 |
| Have used mainframe computer | SY8E2-E4 | 23.33 | 0.60 | 2.51 | 1.59 |
| Have used video tape recorder | SY8F2-F4 | 53.82 | 0.59 | 1.76 | 1.33 |
| Have used audio cassette deck | SY8H2-H4 | 88.26 | 0.40 | 1.97 | 1.40 |
| Have used word processor | SY812-14 | 9.09 | 0.40 | 2.56 | 1.60 |
| Currently registered to vote | SY69 | 53.72 | 0.70 | 2.61 | 1.62 |
| Heve voted in election since turning 18 | SY70 | 33.38 | 0.72 | 3.08 | 1.76 |
| Being successful in job very important | sy71a | 85.27 | 0.45 | 2.11 | 1.45 |
| marrying the right person very important | SY78 | 87.63 | 0.41 | 2.03 | 1.43 |
| Having lots of money very important | SY716 | 29.40 | 0.64 | 2.61 | 1.61 |
| Being a community leader very important | S479F | 10.04 | 0.40 | 2.34 | 1.53 |
| Better opportunities for children very important | SY79G | 72.66 | 0.56 | 2.05 | 1.43 |
| Correcting inequalities very important | SY71d | 14.08 | 0.50 | 2.78 | 1.67 |
| Having children very important | sy7ik | 49.19 | 0.65 | 2.25 | 1.50 |
| Heving leisure time very important | 58712 | 72.14 | 0.67 | 2.95 | 1.72 |
| Mean |  |  |  | 2.40 | 1.54 |
| Minimum |  |  |  | 1.23 | 1.11 |
| Maximum |  |  |  | 4.00 | 2.00 |
| Standard Deviation |  |  |  | 0.56 | 0.18 |

Table 5.3-4b

Estimated'Percentages, Standard Errors and Design Effects in the Percentages of the Second Follow-Up Seniors Who Had Specified Characteristics (Weightefu2WT)

| Statistic | Item <br> Number | Estimete | SE | DEFF | DEFT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Working full time, Feb 184 | SE3A | 65.49 | 0.61 | 1.80 | 1.34 |
| Takin academic courses, Feb ' 84 | SE3C | 38.63 | 0.88 | 3.84 | 1.96 |
| Looking for work, Feb '84 | SE3I | 6.45 | 0.37 | 2.47 | 1.57 |
| Currently married | SE5? | 24.17 | 0.77 | 3.52 | 1.88 |
| Have one or more children | SE66 | 16.68 | 0.72 | 3.65 | 1.91 |
| Expect to have 3 or more children | SE65 | 34.10 | 0.77 | 2.76 | 1.66 |
| Have served on military active duty | SE44 | 6.86 | 0.31 | 1.64 | 1.28 |
| If in PSE 182-184: Earned no degree | SE18i, J-20i, d | 160.46 | 0.92 | 2.46 | 1.57 |
| If in PSE 182-184: Earned vocational degree | SEl81, ${ }^{\text {d-20t, }} \mathrm{J}$ | J 8.62 | 0.25 | 2.72 | 1.65 |
| $1 f$ in PSE 182-984: Earned 4-Year college degree | SET81, J-201, d | J 10.94 | 0.74 | 3.90 | 1.98 |
| Enfolled in postsecondary education, oct 182 | PSESOC82 | 42.82 | 0.97 | 4.16 | 2.04 |
| Enrolled in postsecondary adveation, oct ${ }^{183}$ | PSESOC83 | 39.21 | 0.97 | 4.27 | 2.07 |
| If employed: In clerical occupation, oct '83 | SE47A-50A | 27.24 | 1.00 | 2.18 | 1.48 |
| Employed, oct 183 | Jobsoces | 73.92 | 0.63 | 2.21 | 1.49 |
| Have used pocket calculator | SE9A2-84 | 91.88 | 0.37 | 1.36 | 1.17 |
| Have used computer terminal | SE982-84 | 55.78 | 0.97 | 3.85 | 1.96 |
| Have used mainframe computer | SE9E2-E4 | 29.06 | 0.73 | 2.49 | 1.58 |
| Have used video tape recorder | SE9F2-F4 | 54.75 | 0.92 | 3.39 | 1.84 |
| Have used audio cassette deck | SE9H2-H4 | 89.08 | 0.52 | 2.84 | 1.69 |
| Have used word processor | SE912-14 | 12.55 | 0.52 | 2.58 | 1.60 |
| Currently registered to vote | SE70 | 66.30 | 0.85 | 3.43 | 9.85 |
| Have voted in election within last two years | SE79 | 46.80 | 0.88 | 3.28 | 1.81 |
| Being successful in job very important | SET2A | 88.00 | 0.55 | 3.17 | 1.47 |
| Marrying the right person very important | SET2B | 88.32 | 0.44 | 1.98 | 1.49 |
| Having lots of money very important | SE72C | 26.08 | 0.77 | 3.24 | 8.80 |
| Being cormunity leader very important | SE72F | 10.21 | 0.44 | 2.22 | 1.49 |
| Better opportunities for children very important | SETEG | 67.05 | 0.84 | 3.34 | 1.83 |
| Correcting inequalities very important | SET2s | 13.83 | 0.46 | 1.87 | 1.37 |
| Haying children very important | se7zk | 49.69 | 0.92 | 3.57 | 1.89 |
| Heving leisure time very important | sE72L | 73.93 | 0.72 | 2.84 | 1.69 |
| Hean |  |  |  | 2.87 | 1.68 |
| Minimum |  |  |  | 1.36 | 1.17 |
| Maximam |  |  |  | 4.27 | 2.07 |
| Stendard Deviation |  |  |  | 0.78 | 0.24 |

### 5.3.3 Third Follow-up

Standard errors, DEFFs, and DEFTs for 30 third follow-up survey items are shown in tables 5.3-5a and 5.3-5b. The mean DEFT for the sophomore cohort is 1.48 and that for the seniors is 1.51 , which are close to (just slightly below) the mean DEFTs for the second follow-up. The variability of the DEFT's is much lower for the third follow-up than it was for the second follow-up. Indeed, the standard deviation of the DEFTs for the third follow-up items is calculated to be less than 0.1. One tentative explanation for the greatly reduced standard deviation of the estimated DEFTs is that the BRR estimates of standard exror for individual items have larger coefficients of variation than do the Taylor Series estimates. Hence the observed variability of the BRR estimated DEFTs across the 30 items from the second follow-up is greater than the variability for the Taylor Series estimates from the third follow-up.

Tables 5.3-6a and 5.3-6b present selected distributional statistics for the DEFFs and DEFTs for the same 30 third follow-up items contained in tables 5.3-5a and 5.3-5b, for the total population and for 11 selected domains.

With the exception of Hispanics, the DEFTs for subgroups were generally 10 percent smaller ( 1.5 versus 1.7 ) than that for the total population. The relative efficiency of the Hispanic subsample continued to be affected by the somewhat greater clustering of the Hispanic sample members in specific schools and relatively few geographical areas; the average DEFT for the Hispanic subsample was 1.9. Furthermore, the variability of the DEFTs for Hispanics was over twice that observed for most other subgroups (standard deviation of .4 versus less than . 2 ). Thus, for analysis of third follow-up data from Hispanics, the use of a single generalized design effect to inflate simple random sample estimates of sampling errors involves a greater amount of approximation.

For both cohorts, the mean DEFT for all the subgroups except Hispanics were comparable to or smaller than the mean DEFT for all domains combined (1.5). The mean DEFT for Hispanics, 1.75 for the sophomores and 2.0 for the seniors, is somewhat higher. The variability of the DEFT for the Hispanic sample across different items was also somewhat larger than for the other domains for the third follow-up, but the variability by itself was not that great, as the standard deviation was only 0.21 for sophomores and 0.25 for semiors. The standard deviation for Hispanic sophomores is not much greater than the standard deviation of the DEFTs for all the domains combined in the second follow-up survey of the sophomore cohort, and the standard deviation for the Hispanic seniors is essentially the same as the standard deviation DEFTs for all the domains combined in the second follow-up.

The preceding data and discussion lead to the conclusion that the analyst seeking an appropriate value to use for a root design effect to inflate simple random sampling-based estimates of sampling errors for either cohort may simply use 1.5. If the statistic is based largely on the Hispanic subsample, a root design effect of 1.75 for sophomores and 2.0 for seniors will be more appropriate. If the statistic is more complex than a simple proportion or mean, the DEFTs just recommended will probably be conservative in that they will tend to overestimate the true standard errors.

Table 5.3-5a

Estimated Percentages, Standard Errors and Design Effects in the Percentages of the Third Follow-Up Sophomores Who Had Specified Characteristies (Weight = FUBUT)

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Statistic |  |  |  |  |

Table 5.3-5b

Estimated Percentages, Standard Errors and Design Effects of the Third follow-Up Seniors who Had Specified Characteristics

## (Weight $=$ FUSWT)

| Statistic | Iten Munber | Estimate | SE | DEFF | DEFT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Horking at full or part Time Job, Feb 186 | TE3A | 77.50 | 0.57 | 1.98 | 1.41 |
| Taking Academic Courses, Feb 186 | TE3C | 11.32 | 0.48 | 2.37 | 1.54 |
| Looking For Hork, Feb 186 | TE3I | 8.02 | 0.39 | 2.13 | 1.46 |
| Currently Married | TE4 4 | 36.33 | 0.74 | 2.48 | 1.57 |
| Currently Divorced | TE41 | 2.78 | 0.25 | 2.46 | 1.57 |
| Currently Have One or More Children | TE49 | 26.76 | 0.73 | 2.86 | 1.69 |
| Expect to Have Three or More Children | TE48 | 32.70 | 0.72 | 2.40 | 1.55 |
| In PSE 84-86: Earned No Degree | TE211-221 | 7.61 | 0.80 | 2.13 | 1.46 |
| In PSE 84-86: Received Vocational Degree | TE29H-22H | 18.44 | 1.20 | 2.23 | 1.49 |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | 67.13 | 1.44 | 2.20 | 1.48 |
| Enrolled in PsE, Oct ${ }^{\text {P4 }}$ | TE296-22C | 22.92 | 0.63 | 2.31 | 1.52 |
| Enrolled in PSE, Oct ${ }^{\text {a }} 8$ | TE216-22C | 17.01 | 0.58 | 2.45 | 1.57 |
| In PSE 84-86: V. Dissat W/Career Couns | TE28E | 6.55 | 0.57 | 2.20 | 1.48 |
| in PSE 84-86: Some Sat With Curriculum | TE281 | 51.27 | 1.10 | 2.03 | 1.42 |
| Applied for Grad/Professional School | TE39 | 6.22 | 0.38 | 2.50 | 1.58 |
| If Employed 84-86, 1st Job Clerical | TEBA | 23.07 | 0.63 | 2.22 | 1.49 |
| Had Any Job Between $84-86$ | TE7 | 94.75 | 0.32 | 2.95 | 1.47 |
| Did Not Receive Unemployment-'85 | TE17085 | 82.71 | 1.08 | 2.35 | 1.53 |
| Currently Registered to Vote | TE56 | 72.34 | 0.74 | 2.77 | 1.66 |
| Have Voted Since 1984 | TE57 | 60.66 | 0.77 | 2.50 | 1.58 |
| Active Participant in Service Org | TE5\% | 2.02 | 0.20 | 1.93 | 1.39 |
| Job Security Very Important | TE16C | 72.85 | 0.72 | 2.56 | 1.60 |
| Suecess in Job Very Important | TE684 | 75.76 | 0.58 | 1.87 | 1.37 |
| Maprying the Right Person Very Important | TE688 | 87.06 | 0.50 | 2.23 | 1.49 |
| Heving Lots of Money Very Important | TE6BC | 20.95 | 0.61 | 2.26 | 1.50 |
| Being a Community Leader Very Important | TE68F | 5.35 | 0.31 | 1.93 | 1.39 |
| Providing setter Opp for Kids Very Inp | TE68G | 65.69 | 0.73 | 2.35 | 1.53 |
| Correcting Social Inequalities Very Imp | TE68. | 9.73 | 0.44 | 2.20 | 1.48 |
| Havine children Very Important | TE68K | 48.58 | 0.77 | 2.40 | 1.55 |
| Having Leisure lime Very Inportant | TE68. | 68.86 | 0.66 | 2.07 | 1.44 |
| Mex |  |  |  | 2.28 | 1.51 |
| Minimum |  |  |  | 1.87 | 1.37 |
| Maximen |  |  |  | 2.86 | 9.69 |
| Standard Deviation |  |  |  | 0.23 | 0.08 |

Table 5.3-6a
Distributional Statistics for Design Effects and Root Design Effects for 30 Survey Measures for 12 Domains, Sophomore Cohort

| domain |  | DEFF | deft |
| :---: | :---: | :---: | :---: |
| Total Population | Mean | 2.99 | 1.48 |
|  | Minimem | 1.40 | 1.48 |
|  | Meximun | 2.68 | 1.64 |
|  | Standard Deviation | 0.29 | 0.10 |
| Hispanic | Mean | 3.11 | 1.75 |
|  | Minimum | 1.69 | 1.30 |
|  | Maximum | 5.40 | 2.32 |
|  | Standard Deviation | 0.76 | 0.21 |
| Black | meen | 2.19 | 4.47 |
|  | minimem | 1.24 | 1.11 |
|  | Maximm | 2.92 | 1.71 |
|  | Standard Deviation | 0.36 | 0.13 |
| Whites and Others | Mean | 1.92 | 1.38 |
|  | Minimen | 1.32 | 1.15 |
|  | Maximum | 2.38 | 1.54 |
|  | Standard Deviation | 0.23 | 0.08 |
| Female | Mean | 2.06 | 1.43 |
|  | minimum | 1.51 | 1.23 |
|  | Maximam | 2.42 | 1.55 |
|  | Standard Deviation | 0.21 | 0.07 |
| Mate | Meen | 2.07 | 1.64 |
|  | Minsmum | 1.37 | 1.17 |
|  | Meximan | 2.59 | 1.61 |
|  | Standard Deviation | 0.24 | 0.09 |
| Lowest Quartile ses | Mean | 1.83 | 8.35 |
|  | Minimen | . 1.22 | 1.10 |
|  | Maximusm | 2.31 | 1.52 |
|  | Standard Deviation | 0.26 | 0.10 |

## Table 5.3-6a

Distributional Statistics for Design Effects and Root Design Effects for 30 Survey Measures for 12 Donains, Sophomore Cohort .- Continued

| domain |  | deff | dEFT |
| :---: | :---: | :---: | :---: |
| Middte Ouartiles SES | Meas | 2.06 | 1.43 |
|  | Minimman | 9.43 | 1.20 |
|  | Maximum | 2.41 | 1.55 |
|  | Standard Deviation | 0.25 | 0.09 |
| Highest Quartile SES | Mean | 1.92 | 1.38 |
|  | Minimem | 1.31 | 1.14 |
|  | Maximum | 2.48 | 1.57 |
|  | Standerd Deviation | 0.28 | 0.10 |
| Received No PSE | mean | 1.98 | 1.40 |
|  | Minimum | 1.25 | 1.12 |
|  | Maximum | 2.82 | 4.68 |
|  | Standard Deviation | 0.34 | 0.12 |
| Received Some PSE | Mean | 2.09 | 1.44 |
|  | Minimum | 1.46 | 1.21 |
|  | Maximm | 2.53 | 1.59 |
|  | Standard Deviation | 0.19 | 0.07 |
| Four-Year Degree | Mean | 1.63 | 1.36 |
|  | Minimun | 0.16 | 0.39 |
|  | maximum | 2.14 | 1.46 |
|  | Standard Deviation | 0.42 | 0.21 |

Table 5.3-6b
Distributional Statistics for Design Effects and Root Design Effects for 30 Survey Measures for 12 Domains, Senior Cohort

| domain |  | deff | DEFT |
| :---: | :---: | :---: | :---: |
| Total Population | Mean | 2.28 | 1.51 |
|  | ตimimum | 1.87 | 1.37 |
|  | Masimum | 2.86 | 1.69 |
|  | Scandard Deviation | 0.23 | 0.08 |
| Hispanics | Mean | 4.06 | 2.00 |
|  | Minimum | 1.54 | 1.24 |
|  | Maximum | 5.75 | 2.40 |
|  | Standard Deviation | 0.93 | 0.25 |
| Blacks | \%an | 2.40 | 1.54 |
|  | (6insmam | 1.36 | 1.17 |
|  | Maximur | . 6.63 | 2.15 |
|  | Standard Deviation | 0.61 | 0.18 |
| Whites and others | Mean | 1.70 | 1.30 |
|  | Mînimum | 1.38 | 1.17 |
|  | Maximum | 2.06 | 1.43 |
|  | Standard Deviation | 0.15 | 0.06 |
| Fenale | Mean | 2.26 | 1.50 |
|  | Minimam | 1.83 | 1.35 |
|  | Meximum | 2.59 | 1.61 |
|  | Standard Deviation | 0.17 | 0.06 |
| Male | Mem | 2.13 | 1.46 |
|  | Minimem | 1.76 | 1.33 |
|  | Maximem | 2.65 | 1.63 |
|  | Standard Deviation | 0.20 | 0.07 |
| Bottom SES | Meen | 2.31 | 1.52 |
|  | Minimum | 1.61 | 1.27 |
|  | Maximum | 3.06 | 1.74 |
|  | Standard Deviation | 0.36 | 0.12 |

## Table 5.3-6b

Distributional Statistics for Design Effects and Root Design Effects for 30 Survey Measures for 12 Domains, Senior Cohort -- Continued

| domain |  | DEFF | deft |
| :---: | :---: | :---: | :---: |
| Middle SES | Mean | 2.02 | 1.42 |
|  | Minimem | 1.76 | 1.33 |
|  | Maximum | 2.35 | 1.53 |
|  | Standard Deviation | 0.16 | 0.06 |
| Top SES | Mean | 1.71 | 1.31 |
|  | Minimum | 1.46 | 1.21 |
|  | Maximum | 1.97 | 1.40 |
|  | Standard Deviation | 0.14 | 0.05 |
| No PSE Attendance | Mean | . 1.99 | 1.41 |
|  | minimm | 1.59 | 1.26 |
|  | Maxinum | 2.34 | 1.53 |
|  | Standard Deviation | 0.17 | 0.06 |
| Some PSE Attendance | Mean | 2.25 | 1.50 |
|  | Minimum | 1.73 | 1.32 |
|  | Maximum | 2.72 | 1.65 |
|  | Standard Deviation | 0.23 | 0.07 |
| Four-Year Degree | Meen | 2.07 | 1.44 |
|  | Minimum | 1.79 | 1.34 |
|  | Maximum | 2.67 | 1.57 |
|  | Standard Deviation | 0.17 | 0.06 |

## NOTES TO CHAPTER 5

$1_{\text {Kish, L. and Frankel, M. (1974) "Inference From Complex Samples, }}$ " Journal of the Royal Statistical Society: Series B (Methodological), 36:2-37.
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Sample Survey Methods and Theory, vol. II. New York: John Wiley:
${ }^{4}$ Deming, W. E. (1956) On Simplification of Sampling Design Through Replication With Equal Probablilities and Without Stages," Journal of the American Statistical Association, 31:24-53.
$5_{\text {Frankel, M. (1971) Inference from Survey Samples: An Empirical }}$ Investigation. Ann Arbor: Institute for Social Research, University of Michigan, p. 35.

Wrankel. M. (1971) Inference from Survey Samples: An Empirical Investigation. Ann Axbor: Institute for Social Research, University of Michigan, p. 40 ff.
${ }^{7}$ Frankel,M., Kohnke, L., Buonamno, D., and Tourangeau, R. (1981) Sample Design Report, Chicago: NORC; Chapter 3.
${ }^{8}$ The BRR program is available through CES. The public use data tapes include the computing strata and pseudo-primary selection codes.
${ }^{9}$ Frankel, M. (1971) Inference from Survey Samples: An Empirical Investigation. Ann Arbor: Institute for Social Research, University of Michigan, p. 111 ff.
${ }^{10}$ Tourangeau R., McWilliams H. Jones C. Frankel M., and $0^{\prime}$ Brien F. (1983) High School and Beyond First Follow-Up (1982) Sample Design Report. Chicago: NORC, Chapeer 5, Tables 5.1, 5.2.
$11_{1}$ Franke1, M., Kohnke, L., Buonanno, D., and Tourangeau, R. (1981) Sample Design Report, Chicago: NORC, P. A-4.

Appendix A: Sophomore Weights and Nonresponse Adjustments
hSB SOPhomores - fus nonresponse adjustments por each cell

|  |  |  |  | . . | TOTAL <br> N OF <br> CASES | TOTAL <br> Sum Of WTS | FU3PA SUM OF WTS | THENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DROPSTAT | SEX | \|RACE | \|SChtype | bytesta |  |  |  |  |
| RON-DROPOUT | male | HISPANIC | $\begin{aligned} & \text { REG PUB AND } \\ & \text { ARTER } \end{aligned}$ | UNAVAILABLE | 106 | 26476.4850 | 21507:4160 | 1.2310 |
|  |  |  |  | LOWEST OUARTILE | 114 | 26198.01701 | 23176.6510 | 1.1303 |
|  |  |  |  | SECOND QUARTILE | . 631 | 15839.7210 | 14282.0170 | 8. 1090 |
|  |  |  |  | THIRO QUARTILE | 67 | 81171.9090 | 10700.4900 | 1.0440 |
|  |  |  |  | HIGHEST MUARTILE | 44 | 6757.7080 | 6484.5260 | 1.0421 |
|  |  |  | HISPANIC PUE | URNAVAILABLE\| | 891 | $8638.2110 \mid$ | 8278.76901 | 1.0434 |
|  |  |  |  | ROWEST GUARTIAE | 92 | 7058.6840 | 6273.9980 | 1.1251 |
|  |  |  |  | SECOAO QUARTIRE | 66 | 4358.4890 | 3661.7400 | 1.1903 |
|  |  |  |  | THERD QUARTHLE | 73 | 4437.5380 | 4304. 1110 | 1.0310 |
|  |  |  |  | HIGHEST OUARTIEE | 60. | 2216.5120 | 2015.8340 | 1.0995 |
|  |  | - $\quad \therefore$ | CATHOLS | $\begin{aligned} & \text { BELOW } \\ & \text { MEDIAN } \end{aligned}$ | 74 | 2314.0680 | 2070:4630 | 1.1176 |
|  |  | - . |  | THIRD QUARTILE |  | 1839.6430 | 1779.9530 | 1.0334 |
|  | - |  |  | HIGHEST guartile | 38 | 874.0840 | 863.6340 | 1.0121 |
|  |  |  | PRIV RONCATHALIC | AMSLL | 19 | 3044.5370 | 2758.4470\| | 1. 1037 |
|  |  | NON-HISP BEACK | $\left\lvert\, \begin{aligned} & \text { REG PRB AND } \\ & \text { ALTER } \end{aligned}\right.$ | UNAYAILABLE | 1201 | 43046. 41601 | 37916.93101 | 1.1353 |
|  | - |  |  | LOUEST ounrtile | $217$ | 78888.6990 | 63350.4440 | 1.1348 |

(CONTINUED)

HSB SOPHOMORES - FU3 NONRESPDNSE ADUUSTMENTS FDR EACH CERL

(CONTINUED)

HSB SOPHOMORES - FUS NOARESPONSE ADJUSTMENTS FOR EACH CELL


HSB SOPHDMORES - FU3 NDNRESPONSE ADJUSTMENTS FOR EACH CERL

| 1 |  |  |  |  | $\|$TOTAL <br> $N$ OF <br> CASES | TOTAL | FUSP <br> SUM OF WTS | TMENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DROPSTAT \| | \|SEX | \|RACE | \| SCHTYPE | -BYTESTO |  |  |  |  |
| NON-DROPOUT | FEMALE | NON-HI SP BLACK | $\left\|\begin{array}{l} \text { REG PUB AND } \\ \text { ALTER } \end{array}\right\|$ | SECOND QUARTILE | 156 | 42928.3180\| | 39703.7650 | 1.0811 |
|  |  |  |  | THIRD QUARTILE | - 102 | 21033.3450 | 20440.8940 | 1.0290 |
|  |  |  |  | HI GHEST QUARTILE | . 63 | 8884.3680 | 8163.5400 | 1.0882 |
|  |  |  | $\left\lvert\, \begin{aligned} & \text { HISPANIC } \\ & \text { PUB } \end{aligned}\right.$ | NULL | 41 | 7484.0030 | 7449.3470 | 1.0046 |
|  |  |  | CATHOLIC | UNAVAILABLE | 361 | 841.46001 | 826. 1690 | 8.0185 |
|  |  |  |  | LOWEST QUARTILE |  | 1559.0810 | 1517.4970 | 1.0274 |
|  |  |  |  | SECDND QUARTILE | 73 | 2191.0590 | 2134.9540 | 1.0262 |
|  |  |  |  | THIRD QUARTILE | 33 | 1457.1930\| | 1310.6950 | 1.1117 |
|  |  |  |  | HIGHEST OUARTILE | 26 | 1693.6550 | 1680.1520 | 1.0080 |
|  |  |  | PRIV NONCATHOLIC | MULL | 71 | 1152.0070 | 1152.0070 | 1.0000 |
|  |  | NON-HISP WHITE. OTHER | REG PUPB AND\| ALTER | UNAVAILABLE | $342 \mid$ | 159791.97001 | 143177.64601 | 1.1160 |
|  |  |  |  | LOWEST QUARTILE | 426 | 152308.5480 | 143414.0770 | 1.0620 |
|  |  |  |  | SECOND QUARTILE | 698 | 254560.9730 | 242711.5450 | 1.0487 |
|  |  |  |  | THIRD QUARTILE | 843 | 282812.8360 | 274112.7870 | 1.0317 |
|  |  |  |  | HIGHEST quartile | 966 | 320320.3240 | 311271.5240 | 1.0290 |

HSE SOPHOMORES - FUS RONRESPDNSE ADUUSTMENTS FOR EACH CELL

|  |  |  |  |  | $\left\lvert\, \begin{gathered} \text { TOTAL } \\ \hdashline \text { R. OF } \\ \text { CASES } \end{gathered}\right.$ | total <br> SUM DF WTS | FU3P <br> SUN OF WTS | Thent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OROPSTAT | \|SEX | \|RACE | \| SChtype | frytesto |  |  |  |  |
| NON-DROPOUT | FEMALE | NON-HISP WHITE . OTHER | $\begin{aligned} & \text { HBSPANIC } \\ & \text { PUB } \end{aligned}$ | $\left\lvert\, \begin{aligned} & \text { BELOW } \\ & \text { PIODIAN } \end{aligned}\right.$ | $71$ | 9659.2310 | 8981.2670 | 1.0755 |
|  |  |  |  | $\left\lvert\, \begin{aligned} & \text { ABOVE } \\ & \text { MAEDIAN } \end{aligned}\right.$ | $63$ | 7766.7730 | 7214.7910 | 1.0765 |
|  |  |  | CATHDLIC | UNAVAILAB | 59 | 4154.33901 | 3740.5760 | 1. 1106 |
|  |  |  |  | LOWEST quartile | $64$ | 5160.0370 | 4895.2940 | 1.0540 |
|  |  |  |  | SECOMD quARTILE |  | 20760.4270 | 20596.8020 | 1.0079 |
|  |  |  |  | THIRD quartile | 272 | 31652.5780 | 30056.8050 | 1.0530 |
|  |  |  |  | HIGHEST OUARTILE | 343 | 41168.0660 | 39777.6760 | 1.0349 |
|  |  |  | PREV NON CATHOLIC | $\begin{aligned} & \text { BELOW } \\ & \text { PUEDIAN } \end{aligned}$ | 68 | 27220.7320 | 24204.3220 | 1. 1246 |
|  |  |  |  | $\left\lvert\, \begin{aligned} & \text { ABOVE } \\ & \text { MEDSAN } \end{aligned}\right.$ |  | 27159.1350 | 26162.8050 | 8.0380 |
| DROPOUR | MALE | HISPANIC | \| NULL |  | 214 | $38364.9670 \mid$ | 30457.0330 | 1.1940 |
|  |  | NON-HISP BLACK | \|NULL | prule | 215 | 48657.4590 | 36094.2970 | 1.3480 |
|  |  | NON-HISP WHITE. OTHER | NuLI | MJLL | 730 | 192297.5000 | 128798.9790 | 1.4929 |
|  | FEMale | HISPANIC | \| NULL | Pmul | 227 | $33426.7310 \mid$ | 24204.8910 | 0.3810 |
|  |  | NON-HISP BLACK | PMUL | Melel | $88$ | 39509.7090 | 32475.5830 | 1.2165 |
|  |  | NON-HESP WHITE. OTHER | Pruel | PRULL | . 618 | 15092 1. 2080 | 114948.0490 | 0.3222 |



## (CONTIRUED)

HSB SOPHOMORES - PAAELA. TEST NONRESPONSE ADUUSTMENTS FOR EACH CELL


UNIVARIATE

## VARIABLE=RAWWT

WT FOR FU2 SELECTION

| MOMENTS OUANTILES(DEF=4) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 100\% MAX | 3098. 14 | 99\% | 1264.23 |
| N | 14825 | SUM WGTS | 14825 | 75\% Q3 | 436.375 | 95\% | 530.728 |
| MEAN | 255.037 | SUM | 3780928 | 50\% MED | 147.865 | 90\% | 463.396 |
| STD DEV | 240.215 | VARIANCE | 57703.2 | 25\% O1 | 102.798 | 10\% | 21.8632 |
| SKEWNESS | 2.37723 | KURTOSIS | 11.8637 855392021 | O\% MIN | 1.449 | 5\% | 14.68 |
| USS | 1819669595 | CSS | 855392021 |  |  | 1\% | 5.296 |
| CV | 94.1881 | STD MEAN | 1.97289 0.0001 | RaNge | 3096.7 |  |  |
| T: MEAN=0 | 129.271 |  | 0.0001 | Q3-Q1 | 333.577 |  |  |
| SGN RANK | 54948863 | PROB> ${ }^{\text {S }}$ I | 0.0001 | QMODE | 436.375 |  |  |
| NUM $7=0$ | 14825 |  |  |  |  |  |  |

## EXTREMES

|  |  |
| ---: | ---: |
| LOWEST | HIGHEST |
| 1.449 | 2229.2 |
| 1.449 | 2239.24 |
| 1.449 | 2239.24 |
| 1.449 | 2627.14 |
| 1.449 | 3098.14 |

sas
URARVARIATE

## VARIABLE $=F U 3 W T$

 WT FOR THIRD FOLLOWUP PARTECEPANATS| MDMENTS |  |  |  | QUANTILES (DEF=4) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N | 13481 | SUM WGTS | 13481 | 100\% RAX | 3350.11 | 99\% |
| MEAN | 280.463 | SUM | 3780928 | 75\% Q3 | 463.439 | 95\% |
| STD DEV | 266.438 | VARIANCE | 70989.3 | 50\% MED | 166.899 | 90\% |
| SKEWNESS | 2.65544 | KURTOSIS | 14.4557 | 25\% 01 | 113.076 | 10\% |
| USS | 2017348708 | CSS | 956936427 | 0\% MRN | 1.619 | 5\% |
| CV | 94.9993 | STD MEAN | 2.29475 |  |  | 1\% |
| T: MEAN=0 | 122.22 | PROB> $\mid$ T | 0.0001 | RANGE | 3348.49 |  |
| SGN RANK | 45437711 | PROB> $\mid$ S | 0.0001 | Q3-91 | 350.363 |  |
| NUM $\rightarrow=0$ | 13481 |  |  | MDDE | 449.061 |  |


| 1378.54 | LOWEST | HIGHEST |
| ---: | ---: | ---: |
| 594.488 | 1.619 | 2560.31 |
| 516.443 | 1.619 | 2588.94 |
| 25.282 | 1.619 | 2661.61 |
| 15.791 | 1.619 | 3000.26 |
| 5.481 | 1.619 | 3350.11 |

WT FOR FU3 R'S WITH BY AND FUI TEST DATA


## EXTREMES

| LOWEST | HIGHEST |
| ---: | ---: |
| f.738 | 2736.2 |
| 1.738 | 2774.64 |
| 1.775 | 2922.36 |
| 1.775 | 2969.27 |
| 1.775 | 3446.29 |

## UNIVARIATE

## VARIABLE:PANEEWT4 WT FOR PARTICIPANTS IN ALE FOUR WAVES

| MOMENTS |  |  |  |  | QUANTILES(DEF=4) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N | 11708 | SUM WGTS | 11708 | 100\% MAX | 3969.68 | 99\% | 1231.85 |
| MEAN | 322.935 | SUM | 3780927 | 75\% 03 | 550.373 | 95\% | 677.056 |
| STD DEV | 280.962 | VARI ANCE | 78939.8 | 50\% MED | 198.685 | 90\% | 605.994 |
| SKEWNESS | 1.96794 | KURTOSIS | 10.4893 | 25\% ©1 | 130.206 | 10\% | 31.1153 |
| USS | 2145142994 | CSS | 924147787 | 0\% MiN | 1.803 | 5\% | 17.055 |
| CV | 87.0026 | STD MEAN | 2.59661 |  |  | 1\% | 5.85843 |
| T: ME AN=0 | 124.368 | PROB> $\mid$ \| $\mid$ | 0.0001 | Range | 3967.88 |  |  |
| SGN RANK | 34272243 | PROB> $\mid$ S $\mid$ | 0.0001 | Q3-01 | 420.167 |  |  |
| NUM $7=0$ | 17708 |  |  | PODE | 518.348 |  |  |

EXTREMES

| LOWEST | HIGHEST |
| ---: | ---: |
| 1.803 | 2837.02 |
| 2.025 | 2842.7 |
| 2.025 | 2842.7 |
| 2.025 | 3109.21 |
| 2.025 | 3969.68 |

Appendix B: Senior Weights and Nonresponse Adjustments
hSB SENIORS - fU3 NONRESPONSE ADJUSTMENTS FOR EACH CELL

(CONTINUED)

HSB SENIORS - FU3 NONRESPONSE ADJUSTMENTS FOR EACH CELL


## (CONTINUED)

hisb seniors - fus nonpesponse adjustments for each cell

(CONTINUED)

HSB SENIORS - FUZ NONRESPONSE ADJUSTMENTS FOR EACH CELL

| . . |  |  |  |  | $\|$TOTAL <br> N OF <br> CASES | $\left\|\begin{array}{c}\text { total } \\ \hdashline \text { SUM OF WTS }\end{array}\right\|$ |  | PART <br> ADJUSTMENT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BYPART | \|SEX | \|race | \| SCHTVPE | \|BYTESto |  |  |  |  |
| PARTICIPANT | fermale | NON-HI SP BLACK | $\begin{aligned} & \text { REG PUB AND } \\ & \text { ALTER } \end{aligned}$ | SECOND QUARTILE | 315 | 32671.5600 | 29825.5450 | 1.0954 |
|  |  |  |  | THIRD QUARTILE | 135 | 13114.3590) | 11940.6400 | 1.0982 |
|  |  |  |  | HIGHEST QUARTILE | 56 | 6657.7360 | 5443. 1770 | 1.2230 |
|  |  |  | HISPANIC PUB | NULL | 80 | 4242.6230) | 3709.1320\| | 1.1437 |
|  |  |  | all privatel | NULL | 125 | 7495.70001 | 6361.24501 | 1.1782 |
|  |  | NON-HISP WHITE. OTHER | $\left\lvert\, \begin{aligned} & \text { REG PUE AND } \\ & \text { ALTER } \end{aligned}\right.$ | UNAVAILABLE | 187 | 92711.27101 | 83877.9680\| | 1. 1053 |
|  |  |  |  | LOWEST QUARTILE | 455 | 168062 . 6690 | 852285.7310 | 1. 1036 |
|  |  |  |  | SECOND QUARTILE | 583 | 227347.7910 | 214747.9480 | 1.0586 |
|  |  |  |  | THIRD QUARTILE | 669 | 245218.4430 | 229681.0030 | 1.0676 |
|  |  |  |  | HIGHEST QUARTILE | 713 | 210480.3300\| | 202281.9820 | 1.0405 |
|  |  |  | HISPANIC PUB | $\begin{aligned} & \text { BELOW } \\ & \text { MEDIAN } \end{aligned}$ | 75 | 6234.9920 | 5433.2340 | 1.1475 |
|  |  |  |  | ABOVE <br> MEDIAN | 68 | 6641.5490 | 5437.3600 | 1.2214 |
|  |  |  | CATHOLIC | $\begin{aligned} & \text { BELOW } \\ & \text { MEDIAN } \end{aligned}$ | 104 | 34969,2700 | 32328.9450 | 1.0816 |
|  |  |  |  | ABOVE MEDIAN | 184 | 53584.1730 | 52373.4050 | 1.0231 |
|  |  |  | PRIV NONCATHOLIC | NuLL | $147$ | 41308.0220 | 37225.8820 | 1. 1096 |




## UNIVARIATE

## MOMENTS

QUANTILES(DEF=4)

| 100\% MAX | 1080.84 | $99 \%$ |
| :---: | ---: | ---: |
| $75 \%$ O3 | 594.622 | $95 \%$ |
| $50 \%$ MED | 109.279 | $90 \%$ |
| 25\% Q1 | 83.69 | $10 \%$ |
| O\% MIN | 1.094 | $5 \%$ |
|  |  | $8 \%$ |
| RANGE | 1079.75 |  |
| Q3-Q1 | 510.932 |  |
| MODE | 594.622 |  |

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903.268 630.075
594.622 594.622
27.087 27.087
16.09 16.09 . 485

EXTREMES
LOWEST HIGHEST
1.0941080 .84
1.0941080 .84
$\begin{array}{ll}.094 & 1080.84 \\ 1.094 & 1080.84\end{array}$
$\begin{array}{ll}1.094 & 1080.84 \\ 1.094 & 1080.84\end{array}$
$\begin{array}{ll}1.094 & 1080.84 \\ 1.094 & 1080.84\end{array}$

## EXTREMES

L.OWEST HIGEST

| MOMENTS |  |  |  | QUANTILES (DEF=A) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N | 9149 | SUM WGTS | 9149 | 100\% max | 1081.9 | 99\% | 955.724 |
| MEAN | 332.246 | SUM | 3039714 | 75\% 03 | 824.074 | 95\% | 912.333 |
| STO DEV | 334.114 | VARIANCE | 111632 | 50\% MEO | 163.055 | 90\% | 912.333 |
| SKEWNESS | 0.935866 | KURTOSIS | -0.920926 | 25\% 01 | 118.836 | 10\% | 36.94 |
| USS | 2031142091 | CSS | 1021210673 | 0\% 㬉IN | 1.669 | 5\% | 22.593 |
| cV | 100.562 | STD MEAN | 3.49307 |  |  | 1\% | 7.379 |
| T:MEAN $=0$ | 95.1155 | PROB ${ }^{\text {P }} \mid$ | 0.0001 |  |  |  |  |
| SGN RANK | 20928338 | PROB> $/ 5$ | 0.0001 | $03-01$ <br> MODE | $705.238$ |  |  |

## EXTREMES

| LOWEST | HIGHEST |
| ---: | ---: |
| 1.669 | 1034.59 |
| 1.669 | 1081.9 |
| 1.791 | 1081.9 |
| 1.991 | 1081.9 |
| 1.991 | 1081.9 |

SAS
B
UNGVARIATE
VARIABLE=PANELWT4 WT FOR PARTICIPANTS IN ALL FOUR WAVES

|  | MOMENTS |  |  | QUANT ILES (DEF $=4$ ) |  |  |  | EXTREMES |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N | 9389 | SUM WGTS | 9389 | 100\% MAX | 1045.54 | 99\% | 913.458 | LOWEST | HIGHEST |
| MEAN | 323.753 | SUM | 3039712 | 75\% Q3 | 786.601 | 95\% | 876.564 | 1.572 | 973.949 |
| MEAN STO DEV | 323.753 323.22 | VARIANCE | 104471 | 50\% MED | 155.665 | 90\% | 876.564 | 1.572 | 973.949 |
| SKEWNESS | 0.895201 | KURTOSIS | -1.01992 | 25\% Q1 | 116.788 | 10\% | 39.463 | 1.755 | 973.949 |
| USS | 1964890499 | css | 980776008 | 0\% MIN | 1.572 | 5\% | 22.893 | 1.792 1.792 | 1040.99 1045.54 |
| CV | 99.8356 | STD MEAN | 3.33571 |  |  | 1\% | 7.987 |  | 1045.54 |
| T:MEAN=0 | 97.0565 | PROR $>$ I 1 | 0.0001 |  |  |  |  |  | $\cdots$ |
| SGN RANK | 22040678. | PROB> $\|5\|$ | 0.0001 | O3-61 | 669.812 786.601 |  |  |  |  |
| NUM $\rightarrow 0$ | 9389 |  |  | MODE | 786.601 |  |  |  |  |

Appendix C: Design Effects and Sampling Errors

> High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Sophomore Cohort - Total Population

| Survey Item (or Composite Variable) |  | Estimate | SE | OEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TY3A | 67.47 | 0.58 | 2.02 | 1.42 | 13383 | 0.40 |
| Taking Acadenic Courses, Feb 986 | TY3C | 26.88 | 0.63 | 2.68 | 1.64 | 13383 | 0.38 |
| Laoking For Work, Feb ' 86 | TY3I | 9.58 | 0.36 | 2.05 | 1.43 | 13383 | 0.25 |
| Currently Married | TY41 | 23.14 | 0.56 | 2.36 | 1.54 | 13342 | 0.37 |
| Currently Divorced | TY41 | 1.85 | 0.17 | 2.00 | 1.42 | 13342 | 0.12 |
| Currently Have One or More Children | TY49 | 22.33 | 0.58 | 2.55 | 1.60 | 13337 | 0.36 |
| Expect to Have Three or More Children | TY48 | 31.72 | 0.60 | 2.16 | 1.47 | 12881 | 0.41 |
| In PSE 84-86: Earned No Degree | TY211-221 | 21.36 | 1.15 | 2.05 | 1.43 | 2612 | 0.80 |
| In PSE 84-86: Received Yocational Degree | TY21H-22H. | 27.98 | 1.42 | 2.60 | 1.61 | 2602 | 0.88 |
| In PSE 84-86: Received 4 Year Degree | TY21H-22H | 38.36 | 1.35 | 2.22 | 1.49 | 2602 | 0.91 |
| Enrolled in PSE, Dct ${ }^{\text {g }} 84$ | TY21C-22C | 32.11 | 0.66 | 2.64 | 1.63 | 13225 | 0.41 |
| Enrolled in PSE, Oct '85 | TY21C-22C | 28.36 | 0.61 | 2.45 | 1.56 | 13225 | 0.39 |
| In PSE 84-86: V. Dissat W/Career Couns | TY28E | 5.52 | 0.41 | 2.07 | 1.44 | 6363 | 0.29 |
| In PSE 84-86: Some Sat With Curriculum | TY28I | 50.41 | 0.84 | 1.78 | 1.33 | 6368 | 0.63 |
| Applied for Grad/Professional School | TY39 | 4.46 | 0.28 | 2.23 | 1.49 | 12573 | 0.18 |
| If Employed 84-86, Ist Job Clerical | TY8A | 24.83 | 0.53 | 1.88 | 1.37 | 12435 | 0.39 |
| Had Any Job Between 84-86 | TY7 | 93.81 | 0.30 | 2.10 | 1.45 | 13395 | 0.21 |
| Did Not Receive Unemployment-' 85 | TY17085 | 86.41 | 0.82 | 2.16 | 1.47 | 3769 | 0.56 |
| Currently Registered to Vote | TY56 | 66.40 | 0.67 | 2.58 | 1.60 | 12803 | 0.42 |
| Have Voted Since 1984 | TY57 | 51.13 | 0.70 | 2.47 | 1.57 | 12784 | 0.44 |
| Active Participant in Service Org | TY59K | 1.49 | 0.13 | 1.40 | 1.18 | 12689 | 0.11 |
| Job Security Very Important | TY16C | 75.74 | 0.56 | 2.13 | 1.46 | 12532 | 0.38 |
| Success in Job Very Important | TY68A | 79.88 | 0.51 | 2.03 | 1.43 | 12800 | 0.35 |
| Marrying the Right Person Very Important | TY688 | 86.36 | 0.44 | 2.14 | 1.46 | 12774 | 0.30 |
| Having Lots of Money Very Important | TY686 | 22.68 | 0.52 | 1.94 | 1.39 | 12806 | 0.37 |
| Being a Community Leader Very Important | TY68F | 6.65 | 0.31 | 1.97 | 1.40 | 12793 | 0.22 |
| Providing Better Opp for Kids Very Imp | TY686 | 69.65 | 0.65 | 2.54 | 1.59 | 12757 | 0.41 |
| Correcting Social Inequalities Very Imp | TY68, | 11.02 | 0.42 | 2.32 | 1.52 | 12744 | 0.28 |
| Haying Children Very Important | TY68K | 47.85 | 0.64 | 2.08 | 1.44 | 12789 | 0.44 |
| Having Leisure Time Very Important | TY68L | 68.21 | 0.59 | 2.05 | 1.43 | 12811 | 0.41 |
| Mean |  |  |  | 2.19 | 1.48 |  |  |
| minimum |  |  |  | 1.40 | 1.18 |  |  |
| Maximum |  |  |  | 2.68 | 1.64 |  |  |
| Standard Deviation |  |  |  | 0.29 | 0.10 |  |  |
| Median |  |  |  | 2.14 | 1.46 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Sophomore Cohort - Hispanic

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TY3A | 71.28 | 1.79 | 3.36 | 1.83 | 2141 | 0.98 |
| Taking Academic Courses, Feb ' 86 | TY3C | 14.04 | 1.12 | 2.23 | 1.49 | 2141 | 0.75 |
| Looking For Work, Feb ' 86 | TY3I | 11.06 | 1.43 | 4.42 | 2.10 | 2141 | 0.68 |
| Currently Married | TY41 | 22.51 | 1.56 | 2.98 | 1.73 | 2129 | 0.91 |
| Currently Divorced | TY41 | 1.60 | 0.35 | 1.69 | 1.30 | 2129 | 0.27 |
| Currently Have One or More Children | TY49 | 28.88 | 1.92 | 3.84 | 1.96 | 2132 | 0.98 |
| Expect to Have Three or More Children | TY48 | 32.19 | 1.74 | 2.82 | 1.68 | 2033 | 1.04 |
| In PSE 84-86: Earned No Degree | TY211-22I | 20.76 | 3.69 | 2.73 | 1.65 | 330 | 2.23 |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | 44.06 | 6.37 | 5.40 | 2.32 | 328 | 2.74 |
| In PSE 84-86: Received 4 Year Degree | TY21H-22H | 11.66 | 2.63 | 2.20 | 1.48 | 328 | 1.77 |
| Errolled in PSE, Oct '84 | TY21C-22C | 19.26 | 1.42 | 2.74 | 1.66 | 2116 | 0.86 |
| Enrolled in PSE. Oct '85 | TY21C-22C | 17.34 | 1.30 | 2.51 | 1.58 | 2116 | 0.82 |
| . In PSE 84-86: V. Dissat w/Career Couns | TY28E | 5.02 | 1.16 | 2.50 | 1.58 | 893 | 0.73 |
| In PSE 84-86: Some Sat with Curriculum | TY28I | 46.26 | 3.10 | 3.45 | 1.86 | 894 | 1.67 |
| Applied for Grad/Professional School | TY39 | 3.47 | 0.81 | 3.80 | 1.95 | 1948 | 0.41 |
| If Employed 84-86, 1st Job Clerical | TY8A | 25.92 | 1.67 | 2.83 | 1.68 | 1947 | 0.99 |
| Had Any Job Between 84-86 | TY7 | 92.71 | 0.92 | 2.66 | 1.63 | 2140 | 0.56 |
| Did Not Receive Unemployment-'85 | TY17085 | 85.73 | 2.32 | $2.79^{\circ}$ | 1.67 | 632 | 1.39 |
| Currently Registered to Vote | TY56 | 61.34 | 2.15 | 3.88 | 1.97 | 1994 | 1.09 |
| Have Voted Since 1984 | TY57 | 44.54 | 2.17 | 3.80 | 1.95 | 1990 | 1.11 |
| Active Participant in Service Org | TY59k | 0.74 | 0.27 | 1.89 | 1.38 | 1976 | 0.19 |
| Job Security Very Important | TY16C | 76.17 | 1.80 | 3.48 | 1.87 | 1950 | 0.96 |
| Success in Job Very Important | TY68A | 82.54 | 1.42 | 2.80 | 1.67 | 1996 | 0.85 |
| Marrying the Right Person Very Important | TY68B | 86.50 | 1.49 | 3.79 | 1.95 | 1995 | 0.77 |
| Having Lots of Money Very Important | TY68C | 28.07 | 1.77 | 3.11 | 1.76 | 2001 | 1.00 |
| Being a Community Leader Very Important | TY6BF | 9.28 | 1.15 | 3.12 | 1.77 | 2000 | 0.65 |
| Providing Better Opp for Kids Very Imp | TY68G | 84.78 | 1.33 | 2.71 | 1.65 | 1992 | 0.80 |
| Correcting Social Inequalities Very Imp | TY68. | 13.01 | 1.31 | 3.00 | 1.73 | 1986 | 0.75 |
| Having Children Very Important | TY68K | 45.67 | 2.08 | 3.49 | 1.87 | 1995 | 1.12 |
| Having Leisure Time Very Important | TY68L | 62.77 | 2.00 | 3.41 | 1.85 | 2003 | 1.08 |
| Mean |  |  |  | 3.11 | 1.75 |  |  |
| Minimum |  |  |  | 1.69 | 1.30 |  |  |
| Maximum |  |  |  | 5.40 | 2.32 |  |  |
| Standard Deviation |  |  |  | 0.76 | 0.21 |  |  |
| Median |  |  |  | 2.99 | 1.73 |  |  |

> High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Sophomore Cohort - Black

| Survey Iteri (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job. Feb ' 86 | TY3A | 63.05 | 1.53 | 1.97 | 1.40 | 1954 | 1.09 |
| Taking Acadenic Courses, Feb ${ }^{\text {8 }} 86$ | TY3C | 16.86 | 1.10 | 1.70 | 1.30 | 1954 | 0.85 |
| Looking For Work, Feb '86 | TY3I | 15.19 | 1.19 | 2.13 | 1.46 | 1954 | 0.81 |
| Currently Married | TY41 | 13.98 | 1.17 | 2.19 | 1.48 | 1938 | 0.79 |
| Currently Divorced | TY41 | 0.92 | 0.31 | 2.07 | 1.44 | 1938 | 0.22 |
| Currently Have One or More Children | TY49 | 38.22 | 1.67 | 2.28 | 1.51 | 1933 | 1.11 |
| Expect to Have Three or More Children | TY48 | 29.10 | 1.50 | 2.05 | 1.43 | 1873 | 1.05 |
| In PSE 84-86: Earned No Degree | TY211-221 | 17.71 | 3.01 | 2.02 | 1.42 | 326 | 2.11 |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | 53.58 | 4.63 | 2.79 | 1.67 | 324 | 2.77 |
| In PSE 84m86: Received 4 Year Degree | TY21H-22H | 15.88 | 2.76 | 1.85 | 1.36 | 324 | 2.03 |
| Enrolled in PSE, Oct ! 84 | TY21C-22C | 24.60 | 1.42 | 2.07 | 1.44 | 1911 | 0.99 |
| Enrolied in PSE, Oct '85 | TY21-6-22C | 18.02 | 1.20 | . 1.85 | 1.36 | 1911 | 0.88 |
| In PSE 84-86: V. Oissat W/Career Couns | TY88E | 9.74 | 1.55 | 2.43 | 1.56 | 886 | 1.00 |
| In PSE 84-86: Some Sat With Curriculum | TY281 | 46.55 | 2.46 | 2.15 | 1.47 | 882 | 1.68 |
| Applied for Grad/Professional School | TY39 | 5.01 | 0.88 | 2.92 | 1.71 | 1812 | 0.51 |
| If Employed $84-86$, ist Job Clerical | TY8A | 27.35 | 1.69 | 2.49 | 1.58 | 1738 | 1.07 |
| Had Any Job Between 84-86 | TY7 | 89.50 | 1.04 | 2.24 | 1.50 | 1947 | 0.69 |
| Did Not Receive Unemplayment-'85 | TY17085 | 90.83 | 1.56 | 2.23 | 1.49 | 760 | 1.05 |
| Currently Registered to Vote | TY56 | 74.82 | 1.62 | 2.59 | 1.61 | 1860 | 1.01 |
| Have Voted Since 1984 | TY57 | 54.53 | 1.84 | 2.52 | 1.59 | 1854 | 1.16 |
| Active Participant in Service Org | TY59K | 1.65 | 0.33 | 1.24 | 1.11 | 1837 | 0.30 |
| Job Security Very Important | TY16C | 79.41 | 1.39 | 2.14 | 1.46 | 1820 | 0.95 |
| Success in Job Very Important | TY68A | 87.19 | 1.21 | 2.44 | 1.56 | 1855 | 0.78 |
| Marrying the Right Person Very Important | TY688 | 84.44 | 1.25 | 2.20 | 1.48 | 1849 | 0.84 |
| Having Lots of Money Very Important | TY68C | 33.03 | 1.54 | 2.00 | 1.41 | 1855 | 1.09 |
| Being a Community Leader Very Important | TY68F | 10.93 | 1.17 | 2.61 | 1.62 | 1852 | 0.73 |
| Providing Better Opp for Kids Very Imp | TY68G | 87.04 | 1.27 | 2.64 | 1.62 | 1852 | 0.78 |
| Correcting Social Inequalities Very Imp | TY68J | 23.26 | 1.48 | 2.25 | 1.50 | 1845 | 0.98 |
| Having Children Very Important | TY68K | 37.20 | 1.40 | 1.56 | 1.25 | 1854 | 1.12 |
| Having Leisure Time Very Important | TY68L | 63.06 | 1.62 | 2.09 | 1.45 | 1855 | 1.12 |
| Mean |  |  |  | 2.19 | 1.47 |  |  |
| Minimum |  |  |  | 1.24 | 1.11 |  |  |
| Maximum |  |  |  | 2.92 | 1.71 |  |  |
| Standard Deviation |  |  |  | 0.36 | 0.13 |  |  |
| Median |  |  |  | 2.17 | 1.48 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Sophomore Cohort - Whites and Others

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TY3A | 67.83 | 0.68 | 1.95 | 1.40 | 9288 | 0.48 |
| Taking Acadenic Courses, Feb ' 86 | TY3C | 29.81 | 0.73 | 2.38 | 1.54 | 9288 | 0.47 |
| Looking For Work, Feb ' 86 | TY3I | 8.48 | 0.39 | 1.83 | 1.35 | 9288 | 0.29 |
| Currently Married | TY41 | 24.73 | 0.66 | 2.14 | 1.46 | 9275 | 0.45 |
| Currently Divorced | TY41 | 2.03 | 0.20 | 1.89 | 1.37 | 9275 | 0.15 |
| Currently Have One or More Children | TY49 | 19.03 | 0.59 | 2.07 | 1.44 | 9272 | 0.41 |
| Expect to Have Three or More Children | TY48 | 32.11 | 0.70 | 2.01 | 1.42 | 8975 | 0.49 |
| In PSE 84-86: Earned No Degree | TY21I-22I | 21.83 | 1.27 | 1.84 | 1.36 | 1956 | 0.93 |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | 24.10 | 1.40 | 2.09 | 1.45 | 1950 | 0.97 |
| In PSE 84-86: Received 4 Year Degree | TV21H-22H | 34.26 | 1.51 | 1.97 | 1.81 | 1950 | 1.07 |
| Enrolled in PSE, Oct ' 84 | TY216-22C | 3 Q. 62 | 0.76 | 2.36 | 1.54 | 9198 | 0.50 |
| Enrolled in PSE, Oct ' 85 | TY21C-22C | 31.16 | 0.72 | 2.20 | 1.48 | 9198 | 0.48 |
| In PSE 84-86: V. Dissat H/Career Couns | TY28E | 5.01 | 0.43 | 1.81 | 1.35 | 4584 | 0.32 |
| In PSE 84-86: Some Sat With Curriculum | TY28I | 51.18 | 0.93 | 1.57 | 1.25 | 4592 | 0.74 |
| Applied for Grad/Professional School | TY39 | 4.46 | 0.30 | 1.87 | 1.37 | 8813 | 0.22 |
| If Employed 84-86, 1st Job Clerical | TY8A | 24.33 | 0.58 | 1.59 | 1.26 | 8750 | 0.46 |
| Had Any Job Between 84-86 | TY7 | 94.64 | 0.32 | 1.87 | 1.37 | 9308 | 0.23 |
| Did Not Receive Unemployment-'85 | TY17085 | 85.38 | 1.02 | 1.98 | 1.41 | 2377 | 0.72 |
| Currently Registered to Vote | TY56 | 65.48 | 0.75 | 2.21 | 1.49 | 8949 | 0.50 |
| Have Voted Since 1984 | TY57 | 51.19 | 0.76 | 2.06 | 1.44 | 8940 | 0.53 |
| Active Participant in Service Org | TY59K | 1.53 | 0.15 | 1.32 | 1.15 | 8876 | 0.13 |
| Job Security Very Important | TY16C | 75.09 | 0.64 | 1.92 | 1.39 | 8762 | 0.46 |
| Success in Job Very Important | TY68A | 78.42 | 0.58 | 1.80 | 1.34 | 8949 | 0.43 |
| Marrying the Right Person Very Important | TY688 | 86.65 | 0.49 | 1.88 | 1.37 | 8930 | 0.36 |
| Having Lots of Money Very Important | TY68C | 20.45 | 0.55 | 1.68 | 1.30 | 8950 | 0.43 |
| Being a Community Leader Very Important | TY68F | 5.69 | 0.31 | 1.62 | 1.27 | 8941 | 0.24 |
| Providing Better Opp for Kids Very Imp | TY686 | 65.33 | 0.72 | 2.06 | 1.43 | 8913 | 0.50 |
| Correcting Social Inequalities Very Imp | TY68.J | 8.80 | 0.41 | 1.87 | 1.37 | 8913 | 0.30 |
| Having Children Very Important | TY68k | 49.82 | 0.74 | 1.94 | 1.39 | 8940 | 0.53 |
| Having Leisure Time Very Important | TY68L | 69.58 | 0.66 | 1.84 | 1.36 | 8953 | 0.49 |
| Mean |  | - |  | 1.92 | 1.38 |  |  |
| Minimum |  |  |  | 1.32 | 1.15 |  |  |
| Maximum |  |  |  | 2.38 | 1.54 |  |  |
| Standard Deviation |  |  |  | 0.23 | 0.08 |  |  |
| Median |  |  |  | 1.91 | 1.38 |  |  |

High School and Beyond Third Follow-ip Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data

Sophomore Cohort - Female

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TY3A | 64.65 | 0.85 | 2.16 | 1.47 | 6917 | 0.57 |  |
| Taking Academic Courses, Feb ' 86 | TY3C | 27.13 | 0.77 | 2.05 | 1.43 | 6917 | 0.53 |  |
| Looking For Work, Feb '86 | TY3I | 9.49 | 0.51 | 2.09 | 1.45 | 6917 | 0.35 |  |
| Currently Married | TY41 | 29.70 | 0.86 | 2.42 | 1.55 | 6899 | 0.55 |  |
| Currently Divorced | TY41 | 2.48 | 0.25 | 1.73 | 1.31 | 6899 | 0.19 |  |
| Currentiy Have One or More Children | TY49 | 29.31 | 0.82 | 2.26 | 1.50 | 6906 | 0.55 |  |
| Expect to Have Three or More Children | TY48 | 32.72 | 0.81 | 2.00 | 1.41 | 6723 | 0.57 |  |
| In PSE 84-86: Earned No Degree | TY211-22I | 19.95 | 1.54 | 2.25 | 1.50 | 1508 | 1.03 |  |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | 28.65 | 1.81 | 2.41 | 1.55 | 1504 | 1.17 |  |
| In PSE 84-86: Received \& Year Degree | TY21H-22H | 30.90 | 1.62 | 1.84 | 1.36 | 1504 | 1.19 |  |
| Enrolled in PSE, Oct "84 | TY216-22C | 33.80 | 0.84 | 2.15 | 1.47 | 6833 | 0.57 |  |
| Enrolled in PSE, Oct ' 85 | TY216-226 | 28.90 | 0.79 | 2.05 | 1.43 | 6833 | 0.55 |  |
| In PSE 84-86: V. Dissat W/Career Couns | TY28E | 5.12 | 0.52 | 1.89 | 1.38 | 3404 | 0.38 |  |
| In PSE 84-86: Some Sat With Curriculum | TY28I | 49.64 | 1.15 | 1.81 | 1.35 | 3411 | 0.86 |  |
| Applied for Grad/Professional School | TY39 | 4.18 | 0.37 | 2.21 | 1.49 | 6538 | 0.25 |  |
| If Employed 84-86, 1st Job Clerical | TY8A | 39.76 | 0.89 | 2.06 | 1.44 | 6259 | 0.62 |  |
| Had Any Job Between 84-86 | TV7 | 90.91 | 0.52 | 2.24 | 1.50 | 6922 | 0.35 |  |
| Did Not Receive Unemployment-'85 | TY17085 | 91.32 | 0.84 | 1.86 | 1.36 | 2117 | 0.61 |  |
| Currently Registered to Vote | TY56 | 65.57 | 0.87 | 2.24 | 1.50 | 6669 | 0.58 |  |
| Have Voted Since 1984 | TY57 | 51.42 | 0.93 | 2.32 | 1.52 | 6659 | 0.61 |  |
| Active Participant in Service Org | TY59K | 1.26 | 0.17 | 1.51 | 1.23 | 6600 | 0.14 |  |
| Job Security Very Important | TY16C | 76.15 | 0.80 | 2.27 | 1.51 | 6496 | 0.53 |  |
| Success in Job Very important | TY68A | 76.52 | 0.73 | 1.99 | 1.41 | 6666 | 0.52 |  |
| Maprying the Right Person Very Important | TY68B | 86.65 | 0.61 | 2.13 | 1.46 | б658 | 0.42 |  |
| Having Lots of Money Very Important | TY686 | 17.38 | 0.64 | 1.92 | 1.38 | 6676 | 0.46 |  |
| Being a Community Leader Very Important | TY68F | 4.47 | 0.36 | 1.98 | 1.41 | 6665 | 0.25 |  |
| Providing Better Opp for Kids Very Imp | TY68G | 69.32 | 0.82 | 2.10 | 1.45 | 6653 | 0.57 |  |
| Correcting Social Inequalities Very Imp | TY683 | 11.04 | 0.54 | 2.00 | 1.41 | 6638 | 0.38 |  |
| Haying Children Very Important | TY68\% | 54.59 | 0.83 | 1.85 | 1.36 | 6663 | 0.61 |  |
| Heving Leisure Time Very Important | TY68L | 67.20 | 0.78 | 1.82 | 1.35 | 6674 | 0.57 |  |
| Meam |  |  |  | 2.06 | 1.43 |  |  |  |
| Minimum |  |  |  | 1.51 | 1.23 |  |  |  |
| Meximum |  |  |  | 2.42 | 1.55 |  |  |  |
| Standard Deviation |  |  |  | 0.21 | 0.07 |  |  |  |
| Median |  |  |  | 2.06 | 1.44 |  |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Sophomore Cohort - Male

| Survey Item (or Composite Variable) |  | Estimate | SE | deff | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job. Feb '86 | TY3A | 70.32 | 0.74 | 1.69 | 1.30 | 6466 | 0.57 |
| Taking Acadernic Courses, Feb '86 | TY3C | 26.54 | 0.85 | 2.38 | 1.54 | 6466 | 0.55 |
| Looking For Work, Feb '86 | TY3I | 9.67 | 0.53 | 2.08 | 1.44 | 6466 | 0.37 |
| Currently Married | TY41 | 16.45 | 0.68 | 2.15 | 1.47 | 6443 | 0.46 |
| Currently Divorced | TY41 | 1.21 | 0.22 | 2.59 | 1.61 | 6443 | 0.14 |
| Currently Have One or More Children | TY49 | 15.19 | 0.69 | 2.38 | 1.54 | 6431 | 0.45 |
| Expect to Have Three or More Children | TY48 | 30.68 | 0.85 | 2.10 | 1.45 | 6158 | 0.59 |
| In PSE 84-86: Earned No Degree | TY21I-22I | 23.17 | 1.69 | 1.77 | 1.33 | 1104 | 1.27 |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | 27.13 | 1.97 | 2.15 | 1.47 | 1098 | 1.34 |
| In PSE 84-86: Received 4 Year Degree | TY21H-22H' | 31.96 | 1.98 | 1.97 | 1.40 | 1098 | 1.41 |
| Enrolled in PSE, Oct 'g4 | TY21C-22C | 30.39 | 0.87 | 2.28 | 1.51 | 6392 | 0.58 |
| Enrolled in PSE, Oct '85 | TY21C-22C | 27.81 | 0.82 | 2.16 | 1.47 | 6392 | 0.56 |
| In PSE 84-86: V. Dissat W/Career Couns | TY28E | 5.97 | 0.65 | 2.22 | 1.49 | 2959 | 0.44 |
| In PSE 84-86: Some Sat With Curriculum | TY28I | 51.27 | 1.28 | 1.95 | 1.40 | 2957 | 0.92 |
| Applied for Grad/Professional School | TY39 | 4.75 | 0.41 | 2.19 | 1.48 | 6035 | 0.27 |
| If Employed 84-86, ist Job Clerical | TYBA | 10.54 | 0.54 | 1.89 | 1.37 | 6176 | 0.39 |
| Had Any Job Between 84-86 | TY7 | 96.75 | 0.29 | 1.73 | 1.32 | 6473 | 0.22 |
| Did Not Receive Unemployment-'85 | TY17085 | 80.47 | 1.50 | 2.35 | 1.53 | 1652 | 0.98 |
| Currently Registered to Vote | TY56 | 67.26 | 0.87 | 2.10 | 1.45 | 6134 | 0.60 |
| Have Voted Since 1984 | TY57 | 50.82 | 0.93 | 2.11 | 1.45 | 6125 | 0.64 |
| Active Participant in Service Org | TY59k | 1.72 | 0.20 | 1.37 | 1.17 | 6089 | 0.17 |
| Job Security Very Important | TV16C | 75.32 | 0.77 | 1.94 | 1.39 | 6036 | 0.55 |
| Success in Job Very Important | TY68A | 83.38 | 0.67 | 2.01 | 1.42 | 6134 | 0.48 |
| Marrying the Right Person Very Important | TY688 | 86.06 | 0.65 | 2.17 | 1.47 | 6116 | 0.44 |
| Having Lots of Money Very Important | TY68C | 28.19 | 0.81 | 2.00 | 1.41 | 6130 | 0.57 |
| Being a Community Leader Very Important | TY68F | 8.91 | 0.49 | 1.81 | 1.34 | 6128 | 0.36 |
| Providing Better Opp for Kids Very Imp | TY68G | 69.99 | 0.88 | 2.25 | 1.50 | 6104 | 0.59 |
| Correcting Social Inequalities Very Imp | TY68J | 10.99 | 0.58 | 2.11 | 1.45 | 6106 | 0.40 |
| Having Children Very Important | TY68k | 40.82 | 0.94 | 2.22 | 1.49 | 6126 | 0.63 |
| Having Leisure Time Very Important | TY68L | 69.25 | 0.83 | 1.99 | 1.41 | 6137 | 0.59 |
| Mean |  |  |  | 2.07 | 1.44 |  |  |
| Ninimum |  |  |  | 1.37 | 1.17 |  |  |
| Maxinum |  |  |  | 2.59 | 1.61 |  |  |
| Standard Deviation |  |  |  | 0.24 | 0.09 |  |  |
| Median |  |  |  | 2.11 | 1.45 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages. Standard Errors and Design Effects, Using Third Follow-Up Data Sophomore Cohort - Lowest Quartile SES

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | deft | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TY3A | 66.49 | 1.14 | 2.09 | 1.44 | 3555 | 0.79 |
| Taking Academic Courses. Feb :86 | TY3C | 9.78 | 0.63 | 1.57 | 1.25 | 3555 | 0.50 |
| Leoking For Work, Feb '86 | TY3I | 14.00 | 0.75 | 1.67 | 1.89 | 3555 | 0.58 |
| Currently Married | TY41 | 31.39 | 1.18 | 2.28 | 1.51 | 3536 | 0.78 |
| Currently Divorced | TY41 | 1.88 | 0.27 | 1.43 | 1.19 | 3536 | 0.23 |
| Currently Have One or More Children | TY49 | 33.60 | 1.07 | 1.81 | 1.35 | 3541 | 0.79 |
| Expect to Have Three or More Children | TY48 | 27.34 | 1.03 | 1.83 | 1.35 | 3422 | 0.76 |
| In PSE 84-86: Earned No Degree | TY211-221 | 11.91 | 1.99 | 1.55 | 1.25 | 413 | 1.59 |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | 59.56 | 3.47 | 2.04 | 1.43 | 407 | 2.43 |
| In PSE 84-86: Received 4 Year Degree | TY21H-22H | 9.18 | 1.65 | 1.33 | 1.15 | 407 | 1.43 |
| Enrolled in PSE, Oct '84 | TY216-22C | 13.70 | 0.74 | 1.61 | 1.27 | 3508 | 0.58 |
| Enrolled in PSE. Oct ${ }^{\text {OS }}$ | TY216-22C | 12.59 | 0.76 | 1.82 | 1.35 | 3508 | 0.56 |
| In PSE 84-86: V. Dissat W/Career Couns | TY28E | 5.22 | 0.91 | 1.76 | 1.33 | 1064 | 0.68 |
| In PSE 84-86: Some Sat with Curriculum | TY281 | 48.62 | 2.16 | 1.98 | 1.41 | 1060 | 1.54 |
| Applied for Grad/Professional School | TY39 | 2.96 | 0.43 | 2.16 | 1.47 | 3298 | 0.30 |
| [f Employed 84-86, Ist Job Clerical | TY8A | 23.47 | 1.04 | 1.92 | 1.39 | 3178 | 0.75 |
| Had Any Job Between 84-86 | TY7 | 90.95 | 0.62 | 1.68 | 1.30 | 3556 | 0.48 |
| Did Not Receive Unemployment-'85 | TY17085 | 83.42 | 1.46 | 1.92 | 1.38 | 1246 | 1.05 |
| Currently Registered to Vote | TY56 | 58.44 | 1.27 | 2.27 | 1.51 | 3391 | 0.85 |
| Have Voted Since 1984 | TY57 | 41.10 | 1.29 | 2.31 | 1.52 | 3389 | 0.85 |
| Active Participant in Service Org | TY59k | 0.59 | 0.15 | 1.22 | 1.10 | 3355 | 0.13 |
| Job Security Very Important | TY16C | 79.32 | 0.93 | 1.74 | 1.32 | 3293 | 0.71 |
| Success in Job Very Important | TY68A | 78.29 | 0.96 | 1.84 | 1.36 | 3382 | 0.71 |
| Marrying the Right Person Very Important | TY688 | 88.16 | 0.74 | 1.79 | 1.34 | 3379 | 0.56 |
| Having Lots of Money Very Important | TY68C | 23.23 | 1.01 | 1.94 | 1.39 | 3387 | 0.73 |
| Being a Community Leader Very Important | TY68F | 5.75 | 0.56 | 1.92 | 1.39 | 3381 | 0.40 |
| Providing Better Opp for Kids Very Imp | TY68G | 82.17 | 0.94 | 2.04 | 1.43 | 3379 | 0.66 |
| Correcting Social Inequalities Very Imp | TY68J | 10.90 | 0.70 | 1.67 | 1.29 | 3367 | 0.54 |
| Having Children Very Important. | TY68K | 45.14 | 1.17 | 1.87 | 1.37 | 3383 | 0.86 |
| Having Leisure Time Very Important | TY68L | 63.10 | 1.12 | 1.83 | 1.35 | 3387 | 0.83 |
| Mean |  |  |  | 1.83 | 1.35 |  |  |
| Minimum |  |  |  | 1.22 | 1.10 |  |  |
| Maximum |  |  |  | 2.31 | 1.52 |  |  |
| Standard Deviation |  |  |  | 0.26 | 0.10 |  |  |
| Median |  |  |  | 1.83 | 1.35 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages. Standard Errors and Design Effects, Using Third Follow-Up Data Sophomore Cohort - Two Middle Quartiles SES

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TY3A | 70.76 | 0.79 | 1.99 | 1.41 | 6588 | 0.56 |
| Taking Academic Courses, Feb '86 | TY3C | 22.54 | 0.67 | 1.68 | 1.30 | 6588 | 0.51 |
| Looking For Work, Feb ' 86 | TY3I | 8.88 | 0.52 | 2.22 | 1.49 | 6588 | 0.35 |
| Currentiy Married | TYA1 | 23.92 | 0.79 | 2.24 | 1.50 | 6574 | 0.53 |
| Currently Divorced | TYA1 | 2.12 | 0.26 | 2.10 | 1.45 | 6574 | 0.18 |
| Currently Have One or More Children | TY49 | 23.17 | 0.80 | 2.38 | 1.54 | 6568 | 0.52 |
| Expect to Have Three or More Children | TY48 | 30.29 | 0.86 | 2.24 | 1.50 | 6339 | 0.58 |
| In PSE 84-86: Earned No Degree | TY21I-221 | 19.33 | 1.60 | 1.95 | 1.39 | 1179 | 1.15 |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | 31.04 | 1.94 | 2.07 | 1.44 | 1175 | 1.35 |
| In PSE 84-86: Received 4 Year Degree | TY21H-22H | 24.57 | 1.66 | 1.75 | 1.32 | 1175 | 1.26 |
| Enrolled in PSE, Oct ' 84 | TY21C-22C | 28.23 | 0.75 | 1.81 | 1.35 | 6508 | 0.56 |
| Enrolled in PSE, Oct ${ }^{\text {8 }} 85$ | TY21C-22C | 24.65 | 0.70 | 1.73 | 1.32 | 6508 | 0.53 |
| In PSE 84-86: V. Dissat H/Career Couns | TY28E | 5.93 | 0.64 | 2.18 | 1.48 | 2964 | 0.43 |
| In PSE 84-86: Some Sat With Curriculuri | TY281 | 50.44 | 1.27 | 1.93 | 1.39 | 2968 | 0.92 |
| Applied for Grad/Professional School | TY39 | 3.65 | 0.37 | 2.41 | 1.55 | 6179 | 0.24 |
| If Employed 84-86, 1st Job Clerical | TY8A | 24.87 | 0.73 | 1.78 | 1.33 | 6176 | 0.55 |
| Had Any Job Between 84-86 | TY7 | 94.23 | 0.43 | 2.28 | 1.51 | 6599 | 0.29 |
| Did Not Receive Unemployment-'85 | TY17085 | 85.29 | 1.24 | 2.21 | 1.49 | 1820 | 0.83 |
| Currently Registered to Vote | TY56 | 65.47 | 0.92 | 2.33 | 1.53 | 6296 | 0.60 |
| Have Voted Since 1984 | TY57 | 50.07 | 0.95 | 2.24 | 1.50 | 6281 | 0.63 |
| Active Participant in Service Org | TY59K | 1.46 | 0.18 | 1.43 | 1.20 | 6245 | 0.15 |
| Job Security Very Important | TY16C | 77.66 | 0.77 | 2.11 | 1.45 | 6178 | 0.53 |
| Success in Job Very Important | TY68A | 79.44 | 0.75 | 2.16 | 1.47 | 6303 | 0.51 |
| Marrying the Right Person Very Important | TY688 | 86.03 | 0.67 | 2.35 | 1.53 | 6289 | 0.44 |
| Having Lots of Money Very important | TY68C | 22.57 | 0.70 | 1.74 | 1.32 | 6303 | 0.53 |
| Being a Community Leader Very Important | TY68F | 6.47 | 0.47 | 2.31 | 1.52 | 6300 | 0.31 |
| Providing Better Opp for Kids Very Imp | TY68G | 70.29 | 0.79 | 1.88 | 1.37 | 6280 | 0.58 |
| Correcting Social Inequalities Very Imp | TY683 | 10.55 | 0.58 | 2.24 | 1.50 | 6270 | 0.39 |
| Having Children Yery Important | TY68\% | 47.78 | 0.89 | 2.00 | 1.42 | 6294 | 0.63 |
| Having Leisure Time Very Important | TY68L | 68.16 | 0.85 | 2.10 | 1.45 | 6308 | 0.59 |
| Mean |  |  |  | 2.06 | 1.43 |  |  |
| Minimum |  |  |  | 1.43 | 1.20 |  |  |
| Maximum |  |  |  | 2.41 | 1.55 |  |  |
| Standard Deviation |  |  |  | 0.25 | 0.09 |  |  |
| Median |  |  |  | 2.11 | 1.45 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects. Using Third Follow-Up Data Sophomiore Cohort - Highest Quartile SES

| Survey Iten (or Composite Variable) |  | Estimate | SE | OEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TY3A | 61.00 | 1.30 | 2.29 | 1.51 | 3240 | 0.86 |
| Taking Academic Courses, Feb ${ }^{\text {P }} 86$ | TY3C | 53.65 | 1.29 | 2.17 | 1.47 | 3240 | 0.88 |
| Looking For Work. Feb '86 | TY31 | 6.73 | 0.63 | 2.03 | 1.42 | 3240 | 0.44 |
| Currently Married | TY41 | 13.11 | 0.90 | 2.30 | 1.52 | 3232 | 0.59 |
| Currently Divorced | TY41 | 1.21 | 0.27 | 1.90 | 1.38 | 3232 | 0.19 |
| Currently Have One or More Children | TY49 | 9.12 | 0.70 | 1.89 | 1.38 | 3228 | 0.51 |
| Expect to Have Three or More Children | TY48 | 39.37 | 1.12 | 1.64 | 1.28 | 3120 | 0.87 |
| In PSE 84-86: Earned No Degree | TY211-22I | 27.07 | 2.01 | 2.08 | 1.44 | 1020 | 1.39 |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | 13.48 | 1.53 | 2.05 | 1.43 | 1020 | 1.07 |
| In PSE 84-86: Received \& Year Degree | TY21H-22H | 47.08 | 2.23 | 2.04 | 1.43 | 1020 | 1.56 |
| Enrolled in PSE, Oct "84 | TY21C-22C | 59.20 | 1.37 | 2.48 | 1.57 | 3209 | 0.87 |
| Enrolled in PSE, Oct '85 | TY21C-22C | 52.46 | 1.34 | 2.30 | 1.52 | 3209 | 0.88 |
| In PSE 84-86: V. Dissat W/Career Couns | TY28E | 5.11 | 0.67 | 2.16 | 1.47 | 2335 | 0.46 |
| In PSE 84-86: Some Sat With Curriculum | TY281 | 51.01 | 1.33 | 1.66 | $1 . .29$ | 2340 | 1.03 |
| Applied for Grad/Professional School | TY39 | 7.72 | 0.64 | 1.79 | 1.34 | 3096 | 0.48 |
| If Employed 84*86, 15t Job Clerical | TYBA | 26.04 | 1.07 | 1.83 | 1.35 | 3081 | 0.79 |
| Had Any Job Between 84-86 | TY7 | 95.70 | 0.43 | 1.48 | 1.22 | 3240 | 0.36 |
| Did Not Receive Unemployment-'85 | TY17085 | 94.61 | 1.03 | 1.46 | 1.21 | 703 | 0.85 |
| Currently Registered to Vote | TY56 | 76.47 | 1.06 | 1.94 | 1.39 | 3116 | 0.76 |
| Have Voted Since 1984 | TY57 | 63.56 | 1.23 | 2.02 | 1.42 | 3114 | 0.86 |
| Active Participant in Service Org | TY59K | 2.44 | 0.32 | 1.36 | 1.17 | 3089 | 0.28 |
| Job Security Very Important | TY16C | 67.92 | 1.23 | 2.13 | 1.46 | 3061 | 0.84 |
| Success in Job Very Important | TY68A | 82.46 | 0.95 | 1.95 | 1.40 | 3115 | 0.68 |
| Marrying. the Right Person Very Important | TY688 | 85.29 | 0.87 | 1.85 | 1.36 | 3106 | 0.68 |
| Having Lots of Money Very Important | TY68C | 22.37 | 0.99 | 1.74 | 1.32 | 3116 | 0.75 |
| Being a Cammunity Leader Very Important | TY68F | 7.95 | 0.56 | 1.31 | 1.14 | 3112 | 0.48 |
| Providing Better Opp for Kids Yery Imp | TY68G | 55.74 | 1.25 | 1.97 | 1.40 | 3098 | 0.89 |
| Correcting Social Inequalities Very Imp | TY683 | 12.17 | 0.80 | 1.85 | 1.36 | 3107 | 0.59 |
| Having Children Very Important | TY68K | 50.68 | 1.25 | 1.94 | 1.39 | 3112 | 0.90 |
| Having Leisure Time Very Important | TY68L | 73.39 | 1.08 | 1.86 | 1.36 | 3116 | 0.79 |
| Mean |  |  |  | 1.92 | 1.38 |  |  |
| Minimum |  |  |  | 1.31 | 1.14 |  |  |
| Maximum |  |  |  | 2.48 | 1.57 |  |  |
| Standard Deviation |  |  |  | 0.28 | 0.10 |  |  |
| Median |  |  |  | 1.94 | 1.39 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Sophomore Cohort - Received No Post-Secondary Education

| Survey Iten (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Jab, Feb '86 | TY3A | 71.41 | 0.90 | 1.91 | 1.38 | 4793 | 0.65 |
| Taking Academic Courses, Feb ${ }^{\circ} 86$ | TY3C | 0.36 | 0.10 | 1.39 | 1.18 | 4793 | 0.09 |
| Looking For Work, Feb '86 | TY31 | 11.90 | 0.66 | 1.96 | 1.40 | 4793 | 0.47 |
| Currently Married | TY41 | 34.76 | 0.97 | 1.99 | 1.41 | 4792 | 0.69 |
| Currently Divorced | TY41 | 2.52 | 0.27 | 1.42 | 1.19 | 4792 | 0.23 |
| Currently Have One or More Children | TY49 | 35.85 | 1.03 | 2.21 | 1.49 | 4793 | 0.69 |
| Expect to Have Three or More Children | TY48 | 26.49 | 0.91 | 1.95 | 1.40 | 4614 | 0.65 |
| In PSE 84-86: Earned No Degree | TY211-22I | n/a | $\pi / a$ | n/a | n/a | $n / a$ | n/a |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | n/a | n/a | $n / \mathrm{a}$ | n/a | n/a | n/a |
| In PSE 84-86: Received 4 Year Degree | TY21H-22H | n/a | n/a | $\pi / a$ | n/a | n/a | n/a |
| Enrolled in PSE, Oct '84 | TY21C-22C | n/a | n/a | n/a | n/a | n/a | n/a |
| Enrolled in PSE, Oct '85 | TY21C-22C | n/8 | n/a | n/a | $\pi / \mathrm{a}$ | n/a | n/a |
| - In PSE 84-86: V. Dissat W/Career Couns | TY28E | n/a | $n / \mathrm{a}$ | n/a | $n / a$ | n/a | n/a |
| In PSE 84-86: Some Sat With Curriculum | TY281 | n/a | n/a | n/a | n/a | n/a | n/a |
| Applied for Grad/Professional School | TY39 | 1.94 | 0.35 | 2.82 | 1.68 | 4444 | 0.21 |
| If Employed 84-86, 1st Job Clerical | TY8A | 18.82 | 0.77 | 1.69 | 1.30 | 4323 | 0.59 |
| Had Any Job Between 84-86 | TY7 | 91.31 | 0.59 | 2.09 | 1.45 | 4811 | 0.41 |
| Did Not Receive Unemployment-'85 | TY17085 | 81.82 | 1.44 | 2.05 | 1.43 | 1472 | 1.01 |
| Currently Registered to Vote | TY56 | 55.69 | 1.10 | 2.23 | 1.49 | 4557 | 0.74 |
| Have Voted Since 1984 | TY57 | 38.32 | 1.05 | 2.13 | 1.46 | 4551 | 0.72 |
| Active Participant in Service Org | TY59K | 0.64 | 0.13 | 1.25 | 1.12 | 4512 | 0.12 |
| Job Security Very Important | TY16C | 78.94 | 0.84 | 1.87 | 1.37 | 4423 | 0.61 |
| Success in Job Very Important | TY68A | 75.49 | 0.91 | 2.02 | 1.42 | 4543 | 0.64 |
| Marrying the Right, Person Very Important | TY688 | 87.00 | 0.72 | 2.05 | 1.43 | 4533 | 0.50 |
| Having Lots of Money Very Important | TY68C | 23.96 | 0.86 | 1.83 | 1.35 | 4548 | 0.63 |
| Being a Community Leader Very Important | TY68F | 5.59 | 0.50 | 2.13 | 1.46 | 4542 | 0.34 |
| Providing Better Opp for Kids Very Imp | TY68G | 78.23 | 0.96 | 2.43 | 1.56 | 4532 | 0.61 |
| Correcting Social Inequalities Very Imp | TY68J | 9.07 | 0.64 | 2.26 | 1.50 | 4516 | 0.43 |
| Having Children Very Important | TY68K | 46.24 | 0.99 | 1.79 | 1.34 | 4540 | 0.74 |
| Having Leisure Time Very Important | TY68L | 63.13 | . 1.03 | 2.05 | 1.43 | 4552 | 0.72 |
| Mean |  |  |  | 1.98 | 1.40 |  |  |
| Minimum |  |  |  | 1.25 | 1.12 |  |  |
| Maximum |  |  |  | 2.82 | 1.68 |  |  |
| Standard Deviation |  |  |  | 0.34 | 0.12 |  |  |
| Median |  |  |  | 2.02 | 1.42 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Oesign Effects, Using Third Follow-Up Data Sophomore Cohort - Received Some Post-Secondary Education

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TY3A | 67.82 | 0.76 | 2.03 | 1.43 | 7675 | 0.54 |
| Taking Academic Coupses. Feb ' 86 | TY3C | 39.97 | 0.81 | 2.11 | 1.45 | 7675 | 0.56 |
| Looking For Work, Feb ${ }^{\text {c }}$ G6 | TY3I | 7.95 | 0.44 | 2.05 | 1.43 | 7675 | 0.31 |
| Currently Married | TY41 | 16.56 | 0.59 | 1.92 | 1.39 | 7635 | 0.43 |
| Currently Divorced | TY41 | 1.55 | 0.23 | 2.53 | 1.59 | 7635 | 0.14 |
| Currently Have One or More Children | TY49 | 14.58 | 0.60 | 2.18 | 1.48 | 7631 | 0.40 |
| Expect to Have Three or More Children | TY48 | 34.36 | 0.80 | 2.09 | 1.45 | 7378 | 0.55 |
| In PSE 84-86: Earned No Degree | TY21I-221 | 30.87 | 1.64 | 2.20 | 1.48 | 1753 | 1.10 |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | 40.86 | 1.81 | 2.36 | 1.53 | 1743 | 1.18 |
| In PSE 84-86: Received \& Year Degree | TY21H-22H | n/a | $\pi / \mathrm{a}$ | n/a | п/a | n/a | n/a |
| Enroiled in PSE. Oct '84 | TY21C-22C | 49.66 | 0.83 | 2.08 | 2.948 | 7499 | 0.58 |
| Enrolled in PSE, Oct '85 | TV21C-22C | 43.99 | 0.82 | 2.05 | 1.43 | 7499 | 0.57 |
| In PSE 84-86: V. Dissat W/Career Couns | TY28E | 5.67 | 0.46 | 2.12 | 1.46 | 5483 | 0.31 |
| Ir PSE 84-86: Sone Sat With Curriculum | TY28i | 51.20 | 0.93 | 1.91 | 1.38 | 5484 | 0.67 |
| Applied for Grad/Professional School | TY39 | 4.42 | 0.36 | 2.21 | 1.49 | 7225 | 0.24 |
| If Employed 84-86. lst Job Glerical | TY8A | 28.97 | 0.78 | 2.16 | 1.47 | 7832 | 0.53 |
| Had Any Job Eewween 84-86 | TY7 | 95.26 | 0.35 | 2.05 | 1.43 | 7667 | 0.28 |
| Did Not Receive Unemployment-' 85 | TY17085 | 89.14 | 0.99 | 2.16 | 1.47 | 2125 | 0.68 |
| Currently Registered to Vote | TY56 | 72.48 | 0.77 | 2.20 | 1.48 | 7345 | 0.52 |
| Have Voted Since 1984 | TY57 | 58.37 | 0.81 | 1.99 | 1.41 | 7331 | 0.58 |
| Active Participant in Service Org | TY59K | 1.90 | 0.19 | 1.46 | 1.21 | 7285 | 0.16 |
| Job Security Very Important | TY16C | 74.77 | 0.76 | 2.23 | 1.49 | 7215 | 0.51 |
| Success in job Very Important | TY68A | 82.43 | 0.63 | 2.01 | 1.42 | 7354 | 0.44 |
| Marrying the Right Person Very Important | TY688 | 85.78 | 0.61 | 2.22 | 1.49 | 7339 | 0.41 |
| Having Lots of Money Very Important | TY68C | 22.12 | 0.68 | 2.00 | 1.41 | 7355 | 0.48 |
| Being a Community Leader Very Important | TY68F | 6.68 | 0.39 . | 1.77 | 1.33 | 7349 | 0.29 |
| Providing Better Opp for Kios Very Imp | TY68G | 65.62 | 0.82 | 2.16 | 1.47 | 7325 | 0.55 |
| Correcting Social Inequalities Very Imp | TY68J | 11.73 | 0.55 | 2.13 | 1.46 | 7327 | 0.38 |
| Having Children Very Important | TY68K | 48.46 | 0.86 | 2.19 | 1.48 | 7346 | 0.58 |
| Having Leisure Time Very Important | TY681 | 71.39 | 0.76 | 2.06 | 1.44 | 7357 | 0.53 |
| Mean |  |  |  | 2.09 | 1.44 |  |  |
| Mimimum |  |  |  | 1.46 | 1.21 |  |  |
| Maximum |  |  |  | 2.53 | 1.59 |  |  |
| Standard Oeviation |  |  |  | 0.19 | 0.07 |  |  |
| Median |  |  |  | 2.11 | 1.45 |  |  |

Hign School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Sophomore Cohort - Received a Four-Year Degree

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TY3A | 44.15 | 2.32 | 2.00 | 1.41 | 915 | 1.64 |  |
| Taking Academic Courses, Feb ' 86 | TY36 | 84.13 | 1.66 | 1.89 | 1.37 | 915 | 1.21 |  |
| Looking For Work, Feb '86 | TY31 | 8.62 | 1.36 | 2.14 | 1.46 | 915 | 0.93 |  |
| Currently Married | TY41 | 4.53 | 0.91 | 1.74 | 1.32 | 915 | 0.69 |  |
| Currently Divorced | TY41 | 0.02 | 0.02 | 0.16 | 0.39 | 915 | 0.04 |  |
| Currently Have One or More Children | TY49 | 1.57 | 0.55 | 1.79 | 1.34 | 913 | 0.41 |  |
| Expect to Have Three or More Children | TY48 | 42.63 | 2.12 | 1.64 | 1.28 | 889 | 1.66 |  |
| In PSE 84-86: Earned No Degree | TY211-221 | 1.34 | 0.41 | 1.08 | 1.04 | 859 | 0.39 |  |
| In PSE 84-86: Received Vocational Degree | TY21H-22H | 1.02 | 0.45 | 1.72 | 1.31 | 859 | 0.34 |  |
| In PSE 84 86: Received 4 Year Degree | TY21H-22H | 97.05 | 0.69 | 1.44 | 1.20 | 859 | 0.58 |  |
| Enrolled in PSE, Oct '84 | TY21C-22C | 93.37 | 1.02 | 1.54 | 1.29 | 911 | 0.82 |  |
| Enrolled in PSE, Oct '85 | TY21C-22C | 81.33 | 1.82 | 1.99 | 1.41 | 911 | 1.29 |  |
| - In PSE 84-86: V. Dissat H/Career Couns | TYZ8E | 4.59 | 0.80 | 1.29 | 1.14 | 880 | 0.71 |  |
| In PSE 84-86: Some Sat With Curriculum | TY281 | 45.48 | 2.32 | 1.91 | 1.38 | 884 | 1.67 |  |
| Applied for Grad/Professional School | TY39 | 20.09 | 1.77 | 1.77 | 1.33 | 904 | 1.33 |  |
| If Employed 84-86, 1st Job Clerical | TY8A | 26.34 | 1.88 | 1.60 | 1.27 | 880 | 1.48 |  |
| Had Any Job Between 84-86 | TY7 | 97.42 | 0.59 | 1.28 | 1.13 | 917 | 0.52 |  |
| Did Not Receive Unemployment-'85 | TY17085 | 99.65 | 0.35 | 0.60 | 0.78 | 172 | 0.45 |  |
| Currently Registered to Vote | TY56 | 82.24 | 1.68 | 1.74 | 1.32 | 901 | 1.27 |  |
| Have Voted Since 1984 | TY57 | 70.36 | 2.04 | 1.81 | 1.34 | 902 | 1.52 |  |
| Active Participant in Service Org | TY59K | 3.31 | 0.72 | 1.45 | 1.20 | 892 | 0.60 |  |
| Job Security Very Important | TY16C | 64.06 | 2.10 | 1.71 | 1.31 | 894 | 1.60 |  |
| Success in Job Very Important | TY68A | 85.91 | 1.64 | 2.01 | 1.42 | 903 | 1.16 |  |
| Marrying the Right Person Very Important | TY688 | 87.23 | 1.48 | 1.76 | 1.33 | 902 | 1.11 |  |
| Having Lots of Money Very Important | TY68C | 19.41 | 1.77 | 1.81 | 1.35 | 903 | 1.32 |  |
| Being a Community Leader Very Important | TY68F | 13.04 | 1.43 | 1.62 | 1.27 | 902 | 1.12 |  |
| Providing Better Opp for Kids Very Imp | TY68G | 49.98 | 2.21 | 1.76 | 1.33 | 900 | 1.67 |  |
| Correcting Social Inequalities Very Imp | TY68. | 17.13 | 1.74 | 1.92 | 1.39 | 901 | 1.26 |  |
| Having Children Very Important | TY68k | 52.66 | 2.31 | 1.94 | 1.39 | 903 | 1.66 |  |
| Having Leisure Time Very Important | TY68L | 73.15 | 1.96 | 1.77 | 1.33 | 902 | 1.48 |  |
| Mean |  |  |  | 1.63 | 1.26 |  |  |  |
| Minimum |  |  |  | 0.16 | 0.39 |  |  |  |
| Maximum |  |  |  | 2.14 | 1.46 |  |  |  |
| Standard Deviation |  |  |  | 0.42 | 0.21 |  |  |  |
| Median |  |  |  | 1.75 | 1.33 |  |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Senior Cohort - Total Population

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TE3A | 77.50 | 0.57 | 1.98 | 1.41 | 10492 | 0.41 |
| Taking Academic Courses, Feb ' 86 | TE3C | 11.32 | 0.48 | 2.37 | 1.54 | 10492 | 0.31 |
| Looking For Work, Feb '86 | TE3! | 8.02 | 0.39 | 2.13 | 1.46 | 10492 | 0.27 |
| Currently Married | TEA1 | 36.33 | 0.74 | 2.48 | 1.57 | 10473 | 0.47 |
| Currently Divorced | TEA1 | 2.78 | 0.25 | 2.46 | 1.57 | 10473 | 0.16 |
| Currently Have One or More Children | TE49 | 26.76 | 0.73 | 2.86 | 1.69 | 10445 | 0.43 |
| Expect to Have Three or More Children | TE48 | 32.70 | 0.72 | 2.40 | 1.55 | 10150 | 0.47 |
| In PSE 84-86: Earned No Degree | TE211-22I | 7.61 | 0.80 | 2.13 | 1.46 | 2360 | 0.55 |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | 18.48 | 1.20 | 2.23 | 1.49 | 2347 | 0.80 |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | 67.13 | 1.44 | 2.20 | 1.48 | 2347 | 0.97 |
| Enrolled in PSE, Oct ' 84 | TE21C-22C | 22.92 | 0.63 | 2.31 | 1.52 | 10370 | 0.41 |
| Enrolled in PSE, Oct ' 85 | TE21C-22C | 17.02 | 0.58 | 2.45 | 1.57 | 10370 | 0.37 |
| In PSE 84-86: V. Dissat W/Career Couns | TE28E | 6.55 | 0.57 | 2.20 | 1.48 | 4184 | 0.38 |
| In PSE 84-86: Some Sat With Curriculum | TE281 | 51.27 | 1.10 | 2.03 | 1.42 | 4184 | 0.77 |
| Applied for Grad/Professional School | TE39 | 6.22 | 0.38 | 2.50 | 1.58 | 9917 | 0.24 |
| If Employed 84-86, ist Job Clerical | TEAA | 23.07 | 0.63 | 2.22 | 1.49 | 9795 | 0.43 |
| Had Any Job Between 84-86 | TE7 | 94.75 | 0.32 | 2.15 | 1.47 | 10509 | 0.22 |
| Did Not Receive Unemployment-' 85 | TE17085 | 82.71 | 1.08 | 2.35 | 1.53 | 2860 | 0.71 |
| Currently Registered to Vote | TE56 | 72.34 | 0.74 | 2.77 | 1.66 | 10110 | 0.44 |
| Have Voted Since 1984 | TE57 | 60.66 | 0.77 | 2.50 | 1.58 | 10098 | 0.49 |
| Active Participant in Service Org | TE59k | 2.02 | 0.20 | 1.93 | 1.39 | 10029 | 0.14 |
| Job Security Very Important | TE16C | 72.85 | 0.72 | 2.56 | 1.60 | 9887 | 0.45 |
| Success in Job Very Important | TE68A | 75.76 | 0.58 | 1.87 | 1.37 | 10123 | 0.43 |
| Marrying the Right Person Very Important | TE688 | 87.06 | 0.50 | 2.23 | 1.49 | 10102 | 0.33 |
| Having Lots of Money Very Important | TE68C | 20.95 | 0.61 | 2.26 | 1.50 | 10111 | 0.40 |
| Being a Community Leader Very Important | TE68F | 5.35 | 0.31 | 1.93 | 1.39 | 10107 | 0.22 |
| Providing Better Opp for Kids Very Imp | TE68G | 65.69 | 0.73 | 2.35 | 1.53 | 10065 | 0.47 |
| Correcting Social Inequalities Very Imp | TE68J | 9.73 | 0.44 | 2.20 | 1.48 | 10089 | 0.29 |
| Having Children Very Important | TE68K | 48.58 | 0.77 | 2.40 | 1.55 | 10101 | 0.50 |
| Having Leisure Time Very Important | TE68L | 68.86 | 0.66 | 2.07 | 1.44 | 10123 | 0.46 |
| Mean |  |  |  | 2.28 | 1.51 |  |  |
| Minimum |  |  |  | 1.87 | 1.37 |  |  |
| Maximum |  |  |  | 2.86 | 1.69 |  |  |
| Standard Deviation |  |  |  | 0.23 | 0.08 |  |  |
| Median |  |  |  | 2.25 | 1.50 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Weights Senior Cohort - Hispanic

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb '86 | TE3A | 76.53 | 1.98 | 4.24 | 2.06 | 1941 | 0.96 |
| Taking Academic Courses, Feb '86 | TE3C | 13.48 | 1.35 | 3.05 | 1.75 | 1941 | 0.78 |
| Looking For Work, Feb '86 | TE3I | 8.74 | 1.43 | 4.97 | 2.23 | 1941 | 0.64 |
| Currently Married | TE41 | 38.05 | 2.31 | 4.37 | 2.09 | 1934 | 1.10 |
| Currently Divorced | TE41 | 3.90 | 0.90 | 4.14 | 2.04 | 1934 | 0.44 |
| Currently Have One or More Children | TE49 | 35.89 | 2.40 | 4.82 | 2.19 | 1932 | 1.09 |
| Expect to Have Three or More Children | TE48 | 32.48 | 2.38 | 4.80 | 2.19 | 1853 | 1.09 |
| In PSE 84-86: Earned No Degree | TE21I-22I | 9.80 | 1.98 | 1.54 | 1.24 | 346 | 1.60 |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | 40.85 | 6.26 | 5.53 | 2.35 | 341 | 2.66 |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | 41.63 | 5.25 | 3.86 | 1.97 | 341 | 2.67 |
| Enrolled in PSE, Oct ' 84 | TE21C-22C | 20.44 | 1.65 | 3.21 | 1.79 | 1916 | 0.92 |
| Enrolled in PSE, Oct ' 85 | TE21C.22C | 16.77 | 1.45 | 2.87 | 1.69 | 1916 | 0.85 |
| In PSE 84-86: V. Dissat W/Career Couns | TE28E | 8.71 | 2.51 | 5.75 | 2.40 | 726 | 1.05 |
| In PSE 84-86: Some Sat With Curriculum | TE285 | 50.70 | 3.70 | 3.97 | 1.99 | 724 | 1.86 |
| Applied for Grad/Professional School | TE39 | 3.41 | 0.79 | 3.32 | 1.82 | 1768 | 0.43 |
| If Employed 84-86, 1st Job Clerical | TE8A | 26.95 | 2.26 | 4.63 | 2.15 | 1791 | 1.05 |
| Had Any Job Between 84-86 | TE7 | 91.55 | 1.46 | 5.32 | 2.31 | 1943 | 0.63 |
| Did Not Receive Unemployment-' 85 | TE17085 | 87.76 | 2.32 | 2.56 | 1.60 | 511 | 1.45 |
| Currently Registered to Vote' | TE56 | 70.27 | 2.11 | 3.86 | 1.96 | 1817 | 1.07 |
| Have Voted Since 1984 | TE57 | 52.78 | 2.44 | 4.33 | 2.08 | 1816 | 1.17 |
| Active Participant in Service Org | TE59K | 1.15 | 0.46 | 3.37 | 1.84 | 1808 | 0.25 |
| Job Security Very Important | TE16C | 78.24 | 2.08 | 4.50 | 2.12 | 1771 | 0.98 |
| Success in Job Very Important | TE688 | 79.25 | 1.94 | 4.17 | 2.04 | 1821 | 0.95 |
| Marrying the Right Person Very lmportant | TE688 | 86.45 | 1.66 | 4.27 | 2.07 | 1818 | 0.80 |
| Having Lots of Money Very Important | TE68C | 24.22 | 2.08 | 4.30 | 2.07 | 1816 | 1.01 |
| Seing a Community Leader Very Important | TE68F | 7.78 | 1.01 | 2.56 | 1.60 | 1818 | 0.63 |
| Providing Better Opp for Kids Very Imp | TE68G | 78.47 | 2.07 | 4.61 | 2.15 | 1816 | 0.96 |
| Correcting Social Inequalities Very Imp | TE68J | 14.14 | 1.78 | 4.75 | 2.18 | 1813 | 0.82 |
| Having Children Very Important | TE68K | 49.89 | 2.36 | 4.04 | 2.01 | 1817 | 1.17 |
| Having Leisure Time Very Important | TE68L | 66.23 | 2.24 | 4.07 | 2.02 | 1820 | 1.11 |
| Mean |  |  |  | 4.06 | 2.00 |  |  |
| Hin imum |  |  |  | 1.54 | 1.24 |  |  |
| Maximum |  |  |  | 5.75 | 2.40 |  |  |
| Standard Deviation |  |  |  | 0.93 | 0.25 |  |  |
| Median |  |  |  | 4.21 | 2.05 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Weights Senior Cohort - Black

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TE3A | 74.10 | 1.25 | 2.21 | 1.49 | 2708 | 0.84 |  |
| Tking Academic Courses, Feb '86 | TE3C | 10.06 | 0.91 | 2.50 | 1.58 | 2708 | 0.58 |  |
| Looking For Work, Feb '86 | TE3I | 12.29 | 1.00 | 2.49 | 1.58 | 2708 | 0.63 |  |
| Currently Mapried | TEA1 | 22.65 | 1.25 | 2.41 | 1.55 | 2699 | 0.81 |  |
| Currently Divorced. | TE41 | 1.95 | 0.57 | 4.63 | 2.15 | 2699 | 0.27 |  |
| Currently Have One or More Children | TE49 | 42.65 | 1.51 | 2.52 | 1.59 | 2687 | 0.95 |  |
| Expect to Have Three or More Children | TE48 | 29.68 | 1.28 | 2.06 | 1.43 | 2633 | 0.89 |  |
| In PSE 84-86: Earned No Degree | TE21I-22I | 9.96 | 2.57 | 3.62 | 1.90 | 491 | 1.35 |  |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | 29.03 | 3.23 | 2.47 | 1.57 | 488 | 2.05 |  |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | 51.09 | 3.71 | 2.69 | 1.68 | 488 | 2.26 |  |
| Enrolled in PSE. Oct '84 | TE216-22C | 16.71 | 0.97 | 1.82 | 1.35 | 2663 | 0.72 |  |
| Enrolled in PSE, Oct ' 85 | TE21C-22C | 13.02 | 0.93 | 2.04 | 1.43 | 2663 | 0.65 | 。 |
| In PSE 84-86: V. Dissat W/Gareer Couns | TE2BE | 6.97 | 1.32 | 2.58 | 1.61 | 956 | 0.82 |  |
| In PSE 84-86: Some Sat with Curriculun | TE28I | 51.53 | 2.29 | 2.00 | 1.42 | 955 | 1.62 |  |
| Applied for Grad/Professional School | TE39 | 4.37 | 0.55 | 1.81 | 1.35 | 2548 | 0.40 |  |
| If Employed 84-86, 1st Job Clerical | TE8A | 28.59 | 1.31 | 2.06 | 1.44 | 2454 | 0.91 |  |
| Had Any Jab Between 84-86 | TE7 | 90.46 | 1.06 | 3.55 | 1.88 | 2718 | 0.56 |  |
| Did Not Receive Unemployment-'85 | TE17085 | 87.55 | 1.76 | 2.58 | 1.61 | 905 | 1.10 |  |
| Currently Registered to Vote | TE56 | 77.79 | 1.21 | 2.23 | 1.49 | 2619 | 0.81 |  |
| Have Voted Since 1984 | TE57 | 62.47 | 1.38 | 2.12 | 1.45 | 2608 | 0.95 |  |
| Active Participant in Service Org | TE59K | 2.19 | 0.34 | 1.36 | 1.17 | 2583 | 0.29 |  |
| Job Security Very Important | TE16C | 83.28 | 1.16 | 2.43 | 1.56 | 2542 | 0.74 |  |
| Success in Job Very Important | TE68A | 81.97 | 1.08 | 2.08 | 1.44 | 2623 | 0.75 |  |
| Marrying the Right Person Very Important | TE68B | 85.33 | 0.98 | 2.00 | 1.41 | 2618 | 0.69 |  |
| Having Lots of Money Very Important | TE6BC | 29.80 | 1.43 | 2.55 | 1.60 | 2622 | 0.89 |  |
| Being a Conmunity Leader Very Important | TE68F | 11.29 | 0.97 | 2.46 | 1.57 | 2619 | 0.62 |  |
| Providing Better Opp for Kids Very Imp | TE68G | 87.80 | 0.94 | 2.15 | 1.47 | 2614 | 0.64 |  |
| Correcting Social Inequalities Very Imp | TE68J | 22.71 | 1.26 | 2.35 | 1.53 | 2613 | 0.82 |  |
| Having Children Very Important | TE6BK | 37.74 | 1.35 | 2.04 | 1.43 | 2617 | 0.95 |  |
| Hawing Leisure Time Very Important | TE68L | 65.93 | 1.39 | 2.24 | 1.50 | 2623 | 0.93 |  |
| Mean |  |  |  | 2.40 | 1.54 |  |  |  |
| Minimum |  |  |  | 1.36 | 1.17 |  |  |  |
| Maximum |  |  |  | 4.63 | 2.15 |  |  |  |
| Standard Deviation |  |  |  | 0.61 | 0.18 |  |  |  |
| Median |  |  |  | 2.30 | 1.52 |  |  |  |

> High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Senior Cohort - Whites and Others

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | OEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TE3A | 78.05 | 0.66 | 1.50 | 1.23 | 5843 | 0.54 |
| Taking Academic Courses, Feb '86 | TE3C | 11.34 | 0.53 | 1.61 | 1.27 | 5843 | 0.41 |
| Looking For Work, Feb ' 86 | TE3I | 7.36 | 0.43 | 1.57 | 1.25 | 5843 | 0.34 |
| Currently Married | TEA1 | 38.16 | 0.83 | 1.70 | 1.30 | 5840 | 0.64 |
| Currently Divorced | TE41 | 2.82 | 0.29 | 1.78 | 1.33 | 5840 | 0.22 |
| Currently Have One or More Children | TE49 | 23.85 | 0.80 | 2.06 | 1.43 | 5826 | 0.56 |
| Expect to Have Three or More Children | TE48 | 33.15 | 0.84 | 1.80 | 1.34 | 5664 | 0.63 |
| In PSE 84-86: Earned No Degree | TE21I-22I | 7.28 | 0.90 | 1.81 | 1.34 | 1523 | 0.67 |
| In PSE 84-86: Received Vocational Degree | TE21H-22H. | $16.41{ }^{\text { }}$ | 1.25 | 1.74 | 1.32 | 1518 | 0.95 |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | 69.86 | 1.56 | 1.75 | 1.32 | 1518 | 1.18 |
| Enrolled in PSE, Oct '84 | TE21C-22C | 23.98 | 0.73 | 1.67 | 1.29 | 5791 | 0.56 |
| Enrolled in PSE. Oct ' 85 | TE21C-22C | 17.59 | 0.67 | 1.77 | 1.33 | 5791 | 0.50 |
| In PSE 84-86: V. Dissat W/Career Couns | TE28E | 6.39 | 0.64 | 1.72 | 1.31 | 2502 | 0.49 |
| In PSE 84-86: Some Sat With Curriculum | TE28I | 51.26 | 1.25 | 1.55 | 1.25 | 2505 | 1.00 |
| Applied for Grad/Professional School | TE39 | 6.67 | 0.45 | 1.86 | 1.36 | 5601 | 0.33 |
| If Employed 84-86, 1st Job Clerical | TEBA | 22.06 | 0.72 | 1.67 | 1.29 | 5550 | 0.56 |
| Had Any Job Between 84-86 | TE7 | 95.59 | 0.34 | 1.64 | 1.28 | 5848 | 0.27 |
| Did Not Receive Unemployment-'85 | TE17085 | 81.39 | 1.32 | 1.66 | 1.29 | 1444 | 1.02 |
| Currently Registered to Vote | TE56 | 71.70 | 0.85 | 2.02 | 1.42 | 5674 | 0.60 |
| Have Voted Since 1984 | TE57 | 60.95 | 0.88 | 1.84 | 1.36 | 5674 | 0.65 |
| Active Participant in Service Org | TE59K | 2.06 | 0.23 | 1.51 | 1.23 | 5638 | 0.19 |
| Job Security Very Important | TE16C | 71.02 | 0.81 | 1.76 | 1.33 | 5574 | 0.61 |
| Success in Job Very Important | TE68A | 74.64 | 0.68 | 1.38 | 1.17 | 5679 | 0.58 |
| Marrying the Right Person Very Important | TE68B | 87.35 | 0.57 | 1.65 | 1.29 | 5666 | 0.44 |
| Having Lots of Manèy Very Important | TE68C | 19.46 | 0.69 | 1.70 | 1.31 | 5673 | 0.53 |
| Being a Community Leader Very Important | TE68F | 4.33 | 0.34 | 1.55 | 1.25 | 5670 | 0.27 |
| Providing Better Opp for Kids Very Imp | TE68G | 61.63 | 0.81 | 1.56 | 1.25 | 5635 | 0.65 |
| Correcting Social Inequalities Very Imp | TE68J | 7.57 | 0.47 | 1.76 | 1.33 | 5663 | 0.35 |
| Having Children Very Important | TE68K | 50.04 | 0.89 | 1.80 | 1.34 | 5667 | 0.66 |
| Having Leisure Tine Very Important | TE68L | 69.46 | 0.76 | 1.55 | 1.25 | 5680 | 0.61 |
| Mean |  |  |  | 1.70 | 1.30 |  |  |
| Minimum |  |  |  | 1.38 | 1.17 |  |  |
| Maximum |  |  |  | 2.06 | 1.43 |  |  |
| Standard Deviation |  |  |  | 0.15 | 0.06 |  |  |
| Median |  |  |  | 1.70 | 1.31 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects. Using Third Follow-Up Data

Senior Cohort - Female

| Survey Iter (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb '86 | TE3A | 74.29 | 0.80 | 1.88 | 1.37 | 5677 | 0.58 |
| Taking Academic Courses, Feb '86 | TE3C | 9.97 | 0.59 | 2.17 | 1.47 | 5677 | 0.40 |
| Looking For Work, Feb '86 | TE3I | 7.96 | 0.52 | 2.07 | 1.44 | 5677 | 0.36 |
| Currently Married | TE41 | 42.42 | 1.02 | 2.42 | 1.55 | 5660 | 0.66 |
| Currently Divorced | TE41 | 2.97 | 0.35 | 2.45 | 1.56 | 5660 | 0.23 |
| Currently Haye One or More Children | TE49 | 32.30 | 1.00 | 2.59 | 1.61 | 5650 | 0.62 |
| Expect to Have Three or Mare Children | TEA8 | 32.90 | 0.95 | 2.27 | 1.51 | 5521 | 0.63 |
| In PSE 8A-86: Earned No Degree | TE211-22! | 6.58 | 1.02 | 2.20 | 1.48 | 1293 | 0.69 |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | 19.71 | 1.68 | 2.28 | 1.51 | 1284 | 1.11 |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | 66.55 | 1.98 | 2.26 | 1.50 | 1284 | 1.32 |
| Enrolled in PSE, Oct ' 84 | TE216-22C | 22.23 | 0.86 | 2.41 | 1.55 | 5618 | 0.55 |
| Enrolled in PSE. Oct ${ }^{\circ} 85$ | TE21C-22C | 16.04 | 0.76 | 2.40 | 1.55 | 5618 | 0.49 |
| In PSE 84-86: V. Dissat $\mathrm{W} / \mathrm{Career}$ Couns | TE28E | 6.08 | 0.76 | 2.28 | 1.51 | 2269 | 0.50 |
| In PSE 84m86: Some Sat with Curriculum | TE281 | 49.12 | 1.49 | 2.01 | 1.42 | 2273 | 1.05 |
| Applied for Grac/Professional School | TE39 | 6.63 | 0.52 | 2.38 | 1.54 | 5389 | 0.34 |
| If Employed 84-86, 1st Job Clerical | TE8A | 37.60 | 1.03 | 2.31 | 1.52 | 5154 | 0.67 |
| Had Any Job Between 84-86 | TE7 | 91.76 | 0.55 | 2.27 | 1.51 | 5686 | 0.36 |
| Did Not Receive Unemployment-'85 | TE17085 | 88.79 | 1.16 | 2.26 | 1.50 | 1690 | 0.77 |
| Currently Registered to Vote | TE56 | 72.87 | 0.96 | 2.56 | 1.60 | 5500 | 0.60 |
| Have Voted Since 1984 | TE57 | 61.45 | 1.01 | 2.35 | 1.53 | 5492 | 0.66 |
| Active Participant in Service Org | TE59\% | 1.47 | 0.24 | 2.23 | 1.49 | 5465 | 0.16 |
| Job Security Very Important | TE16C | 73.35 | 0.93 | 2.37 | 1.54 | 5367 | 0.60 |
| Success in Joo Very Important | TE68A | 71.08 | 0.89 | 2.11 | 1.45 | 5509 | 0.61 |
| Marrying the Right Person Very Important | TE688 | 87.63 | 0.65 | 2.14 | 1.46 | 5505 | 0.44 |
| Having Lots of Money Very Important | TE68C | 15.91 | 0.76 | 2.36 | 1.54 | 5504 | 0.49 |
| Being a Community Leader Very Important | TE68F | 3.79 | 0.35 | 1.83 | 1.35 | 5500 | 0.26 |
| Providing Better Opp for Kids Very Imp | TE68G | 66.75 | 0.94 | 2.19 | 1.48 | 5489 | 0.64 |
| Correcting Social Inequalities Very Imp | TE68. | 9.77 | 0.61 | 2.29 | 1.51 | 5489 | 0.40 |
| Having Children Very Important - | TE68K | 54.55 | 1.01 | 2.25 | 1.50 | 5500 | 0.67 |
| Having Leisure Time Very Important | TE6BL | 68.44 | 0.94 | 2.27 | 1.51 | 5509 | 0.63 |
| mean |  |  |  | 2.26 | 1.50 |  |  |
| Minimum |  |  |  | 1.83 | 1.35 |  |  |
| Maximum |  |  |  | 2.59 | 1.61 |  |  |
| Standard Deviation |  |  |  | 0.17 | 0.06 |  |  |
| Median |  |  |  | 2.27 | 1.51 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Senior Cohort - Male

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb '86 | TE3A | 80.87 | 0.83 | 2.16 | 1.47 | 4815 | 0.57 |
| Taking Academic Courses, Feb '86 | TE3C | 12.74 | 0.68 | 2.01 | 1.42 | 4815 | 0.48 |
| Looking For Work, Feb '86 | TE3I | 8.08 | 0.57 | 2.08 | 1.44 | 4815 | 0.39 |
| Currently Married | TEA1 | 29.94 | 1.00 | 2.29 | 1.51 | 4813 | 0.66 |
| Currently Divorced | TE41 | 2.58 | 0.33 | 2.12 | 1.46 | 4813 | 0.23 |
| Currently Have One or More Children | TE49 | 20.93 | 0.89 | 2.28 | 1.51 | 4795 | 0.59 |
| Expect to Have Three or More Children | TE48 | 32.49 | 1.05 | 2.32 | 1.52 | 4629 | 0.69 |
| In PSE 84-86: Earned No Degree | TE211-221 | 8.77 | 1.26 | 2.12 | 1.46 | 1067 | 0.87 |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | 17.03 | 1.61 | 1.94 | 1.39 | 1063 | 1.15 |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | 67.78 | 2.08 | 2.11 | 1.45 | 1063 | 1.43 |
| Enrolled in PSE, Oct ' 84 | TE21C-22C | 23.65 | 0.86 | 1.93 | 1.39 | 4752 | 0.62 |
| Enrolled in PSE, Oct '85 | TE21C-22C | 18.02 | 0.75 | 1.83 | 1.35 | 4752 | 0.56 |
| In PSE 84-86: V. Dissat W/Career Couns | TE28E | 7.06 | 0.82 | 1.97 | 1.40 | 1915 | 0.59 |
| In PSE 84-86: Some Sat With Curriculum | TE28I | 53.59 | 1.67 | 2.13 | 1.46 | 1911 | 1.14 |
| Applied for Grad/Professional School | TE39 | 5.77 | 0.51 | 2.18 | 1.48 | 4528 | 0.35 |
| If Employed 84-86, 1st Job Clerical | TE8A | 8.69 | 0.60 | 2.09 | 1.45 | 4641 | 0.41 |
| Had Any Job Between 84-86 | TE7 | 97.88 | 0.29 | 2.00 | 1.41 | 4823 | 0.21 |
| Did Not Receive Unemployment-'85 | TE17085 | 75.66 | 1.86 | 2.20 | 1.48 | 1170 | 1.25 |
| Currently Registered to Vote | TE56 | 71.79 | 1.08 | 2.65 | 1.63 | 4610 | 0.66 |
| Have Voted Since 1984 | TE57 | 59.83 | 1.11 | 2.37 | 1.54 | 4606 | 0.72 |
| Active Participant in Service Org | TE59K | 2.61 | 0.32 | 1.87 | 1.37 | 4564 | 0.24 |
| Job Security Very Important | TE16C | 72.33 | 1.04 | 2.43 | 1.56 | 4520 | 0.67 |
| Success in Job Very Important | TE68A | 80.74 | 0.81 | 1.93 | 1.39 | 4614 | 0.58 |
| Marrying the Right Person Very Important | TE688 | 86.45 | 0.75 | 2.21 | 1.49 | 4597 | 0.50 |
| Having Lots of Money Very Important | TE68C | 26.31 | 0.96 | 2.21 | 1.49 | 4607 | 0.65 |
| Being a Community Leader Very Important | TE68F | 6.99 | 0.50 | 1.76 | 1.33 | 4607 | 0.38 |
| Providing Better Opp for Kids Very Imp | TE68G | 64.56 | 1.05 | 2.20 | 1.48 | 4576 | 0.71 |
| Correcting Social Inequalities Very Imp | TE68J | 9.67 | 0.61 | 1.93 | 1.39 | 4600 | 0.44 |
| Having Children Very Important | TE68K | 42.23 | 1.13 | 2.39 | 1.54 | 4601 | 0.73 |
| Having Leisure Time Very Important | TE68L | 69.31 | 1.00 | 2.16 | 1.47 | 4614 | 0.68 |
| Mean |  |  |  | 2.13 | 1.46 |  |  |
| Minimum |  |  |  | 1.76 | 1.33 |  |  |
| Maximum |  |  |  | 2.65 | 1.63 |  |  |
| Standard Deviation |  |  |  | 0.20 | 0.07 |  |  |
| Median |  |  |  | 2.13 | 1.46 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Senior Cohort - Lowest Quartile SES

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TE3A | 74.01 | 1.09 | 2.25 | 1.50 | 3650 | 0.73 |
| Taking Academic Courses, Feb '86 | TE3C | 7.52 | 0.63 | 2.06 | 1.44 | 3650 | 0.44 |
| Looking For Work, Feb '86 | TE3I | 8.98 | 0.70 | 2.21 | 1.49 | 3650 | 0.47 |
| Currently Married | TE41 | 43.87 | 1.33 | 2.63 | 1.62 | 3644 | 0.82 |
| Currently Divorced | TE41 | 3.31 | 0.50 | 2.86 | 1.69 | 3644 | 0.30 |
| Currently Have One or More Children | TE49 | 41.55 | 1.32 | 2.62 | 1.62 | 3636 | 0.82 |
| Expect to Have Three or More Children | TE48 | 29.54 | 1.18 | 2.35 | 1.53 | 3533 | 0.77 |
| In PSE 84-86: Earned No Degree | TE215-221 | 8.58 | 1.82 | 2.24 | 1.50 | 532 | 1.21 |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | 27.97 | 2.86 | 2.13 | 1.46 | 526 | 1.96 |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | 49.76 | 3.21 | 2.17 | 1.47 | 526 | 2.18 |
| Enrolled in PSE, Oct '84 | TE21C-22C | 13.47 | 0.82 | 2.07 | 1.44 | 3601 | 0.57 |
| Enrolled in PSE, Oct '85 | TE21C-22C | 11.26 | 0.80 | . 2.28 | 1.51 | 3601 | 0.53 |
| In PSE 84-86: V. Dissat W/Career Couns | TE28E | 4.76 | 0.82 | 1.63 | 1.28 | 1093 | 0.64 |
| In PSE 84-86: Some Sat with Curriculum | TE28[ | 55.29 | 2.25 | 2.23 | 1.49 | 1092 | 1.50 |
| Applied for Grad/Professional School | TE39 | 2.78 | 0.39 | . 1.96 | 1.40 | 3423 | 0.28 |
| If Employed 84-86, 1st Job Clerical | TE8A | 26.39 | 1.20 | . 2.46 | 1.57 | 3346 | 0.76 |
| Had Any Job Between 84-86 | TE7 | 91.86 | 0.74 | 2.65 | 1.63 | 3655 | 0.45 |
| Did Not Receive Unemployment-'85 | TE17085 | 79.96 | 1.88 | 2.38 | 1.54 | 1076 | 1.22 |
| Currently Registered to Vote | TE56 | 66.26 | 1.34 | 2.80 | 1.67 | 3513 | 0.80 |
| Have Voted Since 1984 | TE57 | 51.80 | 1.42 | 2.82 | 1.68 | 3508 | 0.84 |
| Active Participant in Service Org | TE59K | 1.04 | 0.22 | 1.67 | 1.29 | 3483 | 0.17 |
| Job Security Very Important | TE16C | 78.29 | 1.11 | 2.46 | 1.57 | 3407 | 0.71 |
| Success in dob Very Important | TE68A | 73.50 | 1.14 | 2.34 | 1.53 | 3517 | 0.74 |
| Marrying the Right Person Very Important | TE68B | 88.38 | 0.78 | 2.10 | 1.45 | 3511 | 0.54 |
| Having Lots of Money Very Important | TE68C | 20.47 | 1.04 | 2.33 | 1.52 | 3507 | 0.68 |
| Being a Community Leader Very Important | TE68F | 5.22 | 0.50 | 1.81 | 1.34 | 3515 | 0.38 |
| Providing Better Opp for Kids Very Imp | TE686 | 75.92 | 1.26 | 3.04 | 1.74 | 3506 | 0.72 |
| Correcting Social Inequalities Very Imp | TE68J | 10.47 | 0.66 | 1.61 | 1.27 | 3502 | 0.52 |
| Having Children Very Important | TE68K | 47.96 | 1.35 | 2.56 | 1.60 | 3511 | 0.84 |
| Having Leisure Time Very Important | TE68L | 65.23 | 1.30 | 2.62 | 1.62 | 3517 | 0.80 |
| Mean |  |  |  | 2.31 | 1.52 |  |  |
| Minimum |  |  |  | 1.61 | 1.27 |  |  |
| Maximum |  |  |  | 3.04 | 1.74 |  |  |
| Standard Deviation |  |  |  | 0.36 | 0.12 |  |  |
| Median |  |  |  | 2.31 | 1.52 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Senior Cohort - Two Middle Quartiles SES

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb '86 | TE3A | 78.13 | 0.82 | 1.93 | 1.39 | 4949 | 0.59 |
| Taking Academic Courses, Feb '86 | TE3C | 10.57 | 0.62 | 2.01 | 1.42 | 4949 | 0.44 |
| Looking For Work, Feb '86 | TE3I | 7.95 | 0.52 | 1.86 | 1.36 | 4949 | 0.38 |
| Currently Married | TE41 | 36.81 | 0.94 | 1.89 | 1.37 | 4936 | 0.69 |
| Currently Divorced | TE41 | 3.08 | 0.38 | 2.35 | 1.53 | 4936 | 0.25 |
| Currently Have One or More Children | TE49 | 26.26 | 0.95 | 2.31 | 1.52 | 4925 | 0.63 |
| Expect to Have Three or More Children | TE48 | 32.61 | 0.97 | 2.07 | 1.44 | 4787 | 0.68 |
| In PSE 84-86: Earned No Degree | TE211-22I | 8.68 | 1.27 | 2.16 | 1.47 | 1072 | 0.86 |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | 22:38 | 1.84 | 2.09 | 1.44 | 1066 | 1.28 |
| In PSE 84-86: Received 4 Year Degree | TE21H-28H | 62.49 | 2.08 | 1.96 | 1.40 | 1066 | 1.48 |
| Enrolled in PSE, Oct ' 84 | TE216-226 | 21.38 | 0.83 | 1.99 | 1.41 | 4894 | 0.59 |
| Enrolled in PSE, Oct ' 85 | TE21C-22C | 15.78 | 0.75 | 2.09 | 1.44 | 4894 | 0.52 |
| In PSE 84-86: V. Dissat W/Career Couns | TE28E | 7.70 | 0.81 | 1.78 | 1.33 | 1936 | 0.61 |
| In PSE 84-86: Some Sat With Curriculum | TE281 | 49.61 | 1.69 | 2.22 | 1.49 | 1940 | 1.14 |
| Applied for Grad/Professional School | TE39 | 5.23 | 0.47 | 2.12 | 1.46 | 4686 | 0.33 |
| If Employed 84-86, 1st Job Clerical | TE8A | 24.00 | 0.89 | 2.00 | 1.41 | 4638 | 0.63 |
| Had Any Job Between 84-86 | TE7 | 94.99 | 0.44 | 2.00 | 1.41 | 4957 | 0.31 |
| Did Not Receive Unemployment-'85 | TE17085 | 80.54 | 1.61 | 2.13 | 1.46 | 1283 | 1.11 |
| Currently Registered to Vote | TE56 | 71.23 | 1.00 | 2.32 | 1.52 | 4767 | 0.66 |
| Have Voted Since 1984 | TE57 | 58.78 | 1.03 | 2.07 | 1.44 | 4763 | 0.71 |
| Active Participant in Service Org | TE59K | 2.44 | 0.30 | 1.84 | 1.36 | 4739 | 0.22 |
| Job Security Very Important | TE16C | 74.39 | 0.94 | 2.15 | 1.47 | 4674 | 0.64 |
| Success in Job Very Important | TE68A | 75.23 | 0.84 | 1.80 | 1.34 | 4782 | 0.62 |
| Marrying the Right Person Very Important | TE68B | 86.86 | 0.67 | 1.87 | 1.37 | 4774 | 0.49 |
| Having Lots of Money Yery Important | TE68C | 20.80 | 0.84 | 2.03 | 1.42 | 4783 | 0.59 |
| Being a Comsunity Leader Very Important | TE68F | 4.61 | 0.40 | 1.76 | 1.33 | 4773 | 0.30 |
| Providing Better Opp for Kids Very Imp | TE68G | 66.28 | 0.95 | 1.92 | 1.39 | 4756 | 0.69 |
| Correcting Social Inequalities Very Imp | TE68J | 8.90 | 0.59 | 2.07 | 1.44 | 4766 | 0.41 |
| Having Children Very Important | TE68\% | 47.47 | 1.03 | 2.02 | 1.42 | 4772 | 0.72 |
| Having Leisure Time Very Important | TE68L | 68.30 | 0.91 | 1.85 | 1.36 | 4783 | 0.67 |
| Mean |  |  |  | 2.02 | 1.42 |  |  |
| Minimum |  |  |  | 1.76 | 1.33 |  |  |
| Maximum |  |  |  | 2.35 | 1.53 |  |  |
| Standard Deviation |  |  |  | 0.16 | 0.06 |  |  |
| Median |  |  |  | 2.02 | 1.42 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Data Senior Cohort - Highest Quartile SES

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TE3A | 79.15 | 1.26 | 1.82 | 1.35 | 1893 | 0.93 |
| Taking Academic Courses, Feb '86 | TESC | 17.10 | 1.16 | 1.78 | 1.34 | 1893 | 0.87 |
| Looking For Work, Feb '86 | TE31 | 7.27 | 0.75 | 1.57 | 1.25 | 1893 | 0.60 |
| Currently Married | TEA | 27.65 | 1.35 | 1.71 | 1.31 | 1893 | 1.03 |
| Currently Divorced | TE41 | 1.45 | 0.33 | 1.48 | 1.22 | 1893 | Q. 27 |
| Currently Have One or More Children | TE49 | 13.70 | 1.04 | 1.73 | 1.31 | 1884 | 0.79 |
| Expect to Have Three or More Children | TE48 | 36.07 | 1.41 | 1.59 | 1.26 | 1830 | 1.12 |
| In PSE 84-86: Earned No Degree | TE211-221 | 5.86 | 1.10 | 1.66 | 1.29 | 756 | 0.85 |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | 10.38 | 1.46 | 1.73 | 1.32 | 755 | 1.11 |
| In PSE 84-86: Received \% Year Degree | TE21H-22H | 78.33 | 1.94 | 1.67 | 1.29 | 755 | 1.50 |
| Enrolled in PSE, Oct 'B4 | †E21C-22C | 36. 41 | 1.48 | 1.76 | 1.33 | 1875 | 1.11 |
| Enrolled in PSE, Oct ' 85 | TE21C-28C | 25.99 | 1.40 | 1.90 | 1.38 | 1875 | 1.01 |
| In PSE 84-86: V. Dissat W/Career Couns | TE28E | 5.36 | 0.93 | 1.95 | 1.40 | 1155 | 0.66 |
| In PSE 84-86: Some Sat With Curriculum | TE281 | 52.43 | 1.78 | 1.46 | 1.21 | 1152 | 1.47 |
| Applied for Grad/Professional School | TE39 | 12.30 | 1.03 | 1.77 | 1.33 | 1808 | 0.77 |
| If Employed 84-86, 1st Job Clerical | TEBA | 17.44 | 1.18 | 1.55 | 1.24 | 1811 | 0.89 |
| Had Any Job Between 84-86 | TE7 | 96.90 | 0.89 | 1.50 | 1.23 | 1897 | 0.40 |
| Did Not Receive Unemployment-'85 | TE17085 | 91.44 | 1.68 | 1.80 | 1.34 | 501 | 1.25 |
| Currently Registered to Vote | TE56 | 81.46 | 1.21 | 1.77 | 1.33 | 1830 | 0.91 |
| Have Voted Since 1984 | TE57 | 74.68 | 1.41 | 1.92 | 1.39 | 1827 | 1.02 |
| Active Participant in Seryice Org | TE59K | 1.81 | 0.39 | 1.52 | 1.23 | 1807 | 0.31 |
| Job Security Very Importanc | TEI6C | 63.43 | 1.55 | 1.87 | 1.37 | 1806 | 1.13 |
| Success in Job Very Important | TE68A | 79.49 | 1.23 | 1.68 | 1.30 | 1824 | 0.95 |
| Marrying the Right Person Very Important | TE688 | 86.32 | 1.09 | 1.84 | 1.35 | 1817 | 0.81 |
| Having Lots of Money Very Important | TE68C | 21.83 | 1.29 | 1.76 | 1.33 | 1821 | 0.97 |
| Being a Community Leader Very Important | TE68F | 7.53 | 0.82 | 1.74 | 1.32 | 1819 | 0.62 |
| Providing Better Opp for Kids Very Imp | TE68G | 53.84 | 1.52 | 1.68 | 1.30 | 1803 | 1.17 |
| Correcting Social Inequalities Very Imp | TE683 | 11.31 | 0.94 | 1.60 | 1.26 | 1821 | 0.74 |
| Haying Children Very Important | TE68\% | 52.31 | 1.64 | 1.97 | 1.40 | 1818 | 1.17 |
| Heying Leisure Time Very Important | TE68L | 74.04 | 1.31 | 1.64 | 1.28 | 1823 | 1.03 |
| Mean |  |  |  | 1.71 | 1.31 |  |  |
| Minimum |  |  |  | 1.46 | 1.21 |  |  |
| Maximum |  |  |  | 1.97 | 1.40 |  |  |
| Standard Deviation. |  |  |  | 0.14 | 0.05 |  |  |
| Median |  |  |  | 1.73 | 1.32 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Weights

Senior Cohort - Received No Post-Secondary Education

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb ' 86 | TE3A | 75.29 | 1.02 | 1.97 | 1.40 | 3515 | 0.73 |
| Taking Academic Courses, Feb '86 | TE3C | 0.32 | 0.13 | 1.96 | 1.40 | 3515 | 0.09 |
| Looking For Work. Feb '86 | TE3I | 8.25 | 0.63 | 1.85 | 1.36 | 3515 | 0.46 |
| Currently Married | TE41 | 46.45 | 1.22 | 2.09 | 1.45 | 3523 | 0.84 |
| Currently Divorced | TE41 | 4.13 | 0.51 | 2.34 | 1.53 | 3523 | 0.34 |
| Currently Have One or More Children | TE49 | 41.13 | 1.24 | 2.22 | 1.49 | 3520 | 0.83 |
| Expect to Have Three or More Children | TE48 | 30.50 | 1.14 | 2.10 | 1.45 | 3415 | 0.79 |
| In PSE 84-86: Earned No Degree | TE21I-22I | n/a | n/a | n/a | n/a | n/a | n/a |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | n/a | n/a | n/a | n/a | n/a | n/a |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | n/a | n/a | $n / \mathrm{a}$ | n/a | $n / \mathrm{a}$ | n/a |
| Enrolled in PSE, Oct '84 | TE21C-22C | n/a | n/a | $n / 2$ | n/a | n/a | n/a |
| Enrolled in PSE, Oct ' 85 | TE216-22C | n/a | n/a | n/a | n/a | n/a | n/a |
| In PSE 84-86: V. Dissat W/Career Couns | TE28E | n/a | n/a | $n / a$ | $n / \mathrm{a}$ | n/a | n/a |
| In PSE 84-86: Some Sat With Curriculun | TE281 | n/a | n/a | n/a | n/a | n/a | n/a |
| Applied for Grad/Professional School | TE39 | 0.78 | 0.19 | 1.59 | 1.26 | 3291 | 0.15 |
| If Employed 84-86, 1st Job Clerical | TE8A | 22.88 | 1.08 | 2.12 | 1.45 | 3202 | 0.74 |
| Had Any Job Between 84-86 | TE7 | 91.93 | 0.63 | 1.87 | 1.37 | 3526 | 0.46 |
| Did Not Receive Unemployment-'85 | TE17085 | 73.71 | 2.19 | 2.28 | 1.51 | 924 | 1.45 |
| Currently Registered to Vote | TE56 | 61.26 | 1.18 | 2.00 | 1.41 | 3387 | 0.84 |
| Have Voted Since 1984 | TE57 | 47.17 | 1.24 | 2.09 | 1.45 | 3388 | 0.86 |
| Active Participant in Service Org | TE59K | 1.35 | 0.27 | 1.88 | 1.37 | 3359 | 0.20 |
| Job Security Very Important | TE16C | 78.23 | 1.02 | 2.00 | 1.42 | 3254 | 0.72 |
| Success in Job Very Important | TE68A | 72.19 | 1.03 | 1.80 | 1.34 | 3391 | 0.77 |
| Marrying the Right, Person Very Important | TE688 | 88.62 | 0.77 | 1.98 | 1.41 | 3381 | 0.55 |
| Having Lots of Money Very Important | TE68C | 21.45 | 1.00 | 2.01 | 1.42 | 3385 | 0.71 |
| Being a Community Leader Very Important | TE68F | 3.48 | 0.41 | 1.73 | 1.31 | 3384 | 0.31 |
| Providing Better Opp for Kids Very Imp | TE68G | 73.62 | 1.06 | 1.94 | 1.39 | 3381 | 0.76 |
| Correcting Social Inequalities Very Imp | TE68J | 7.03 | 0.60 | 1.85 | 1.36 | 3373 | 0.44 |
| Having Children Very Important | TE68K | 48.97 | 1.19 | 1.93 | 1.39 | 3382 | 0.86 |
| Having Leisure Time Very Important | TE68L | 65.24 | 1.17 | 2.06 | 1.43 | 3391 | 0.82 |
| Mean |  |  |  | 1.99 | 1.41 |  |  |
| Minimum |  |  |  | 1.59 | 1.26 |  |  |
| Maximum |  |  |  | 2.34 | 1.53 |  |  |
| Standard Deviation |  |  |  | 0.17 | 0.06 |  |  |
| Median |  |  |  | 1.98 | 1.41 |  |  |

High School and Beyond Third follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Weights Senior Cohort - Received Sone Post-Secondary Education

| Survey Item (or Composite Yariable) |  | Est imate | SE | DEFF | DEFT | N | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Jab, Feb ' 86 | TE3A | 77.87 | 0.86 | 2.18 | 1.48 | 5124 | 0.58 |
| Taking Academic Courses, feb ' 86 | TE3C | 21.18 | 0.92 | 2.59 | 1.61 | 5124 | 0.57 |
| Looking For Work, Feb '86 | TE3I | 7.68 | 0.54 | 2.08 | 1.44 | 5124 | 0.37 |
| Currently Married | TEA1 | 33.27 | 1.01 | 2.32 | 1.52 | 5098 | 0.66 |
| Currently Divorced | TEA1 | 2.59 | 0.37 | 2.72 | 1.65 | 5098 | 0.22 |
| Currently Have One or More Children | TE49 | 23.92 | 0.94 | 2.47 | 1.57 | 5074 | 0.60 |
| Expect to Have Three or More Children | TEA8 | 32.35 | 1.02 | 2.34 | 1.53 | 4927 | 0.67 |
| In PSE 84-86: Earned No Degree | TE211-221 | 24.00 | 2.37 | 2.83 | 1.56 | 790 | 1.52 |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | 54.97 | 2.63 | 2.17 | 1.47 | 777 | 1.78 |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | n/a | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a |
| Enrolled in PSE, Oct ' 84 | TE21C-226 | 28.53 | 0.93 | 2.13 | 1.46 | 4989 | 0.64 |
| Enrolled in PSE, Oct 'B5 | TE21C-22C | 26.81 | 0.96 | 2.32 | 1.52 | 4989 | 0.63 |
| In PSE 84-86: V. Dissat w/Career Couns | TE28E | 6.03 | 0.69 | 2.15 | 1.47 | 2561 | 0.47 |
| In PSE 84-86: Sone Sat with Curriculum | TE281 | 52.76 | 1.43 | 2.11 | 1.45 | 2560 | 0.99 |
| Applied for Grad/Professional School | TE39 | 3.71 | 0.40 | 2.11 | 1.45 | 4811 | 0.27 |
| If Employed 84-86, 1st Job Clerical | TEBA | 26.33 | 0.90 | 1.99 | 1.41 | 4806 | 0.64 |
| Had Any Job Between 84-86 | TE]. | 95.97 | 0.39 | 2.01 | 1.42 | 5128 | 0.27 |
| Did Not Receive Unemployment-'85 | TE17085 | 83.83 | 1.58 | 2.50 | 1.58 | 1354 | 1.00 |
| Cisprently Registered to Vote | TE56 | 75.44 | 1.01 | 2.71 | 1.65 | 4901 | 0.61 |
| Have Voted Since 1984 | TE57 | 63.68 | 1.03 | 2.22 | 1.49 | 4888 | 0.69 |
| Active Participant in Service Org | TE59K | 1.82 | 0.27 | 2.04 | 1.43 | 4863 | 0.19 |
| Job Security Very Important | TE16C | 72.63 | 0.99 | 2.37 | 1.54 | 4829 | 0.64 |
| Success in Job Very Important | TE68A | 75.99 | 0.88 | 2.07 | 1.44 | 4913 | 0.61 |
| Marrying the Right Person Very Important | TE68B | 86.09 | 0.76 | 2.34 | 1.53 | 4910 | 0.49 |
| Having Lots of Money Very Important | TE68C | 20.71 | 0.83 | 2.04 | 1.43 | 4907 | 0.58 |
| Being a Community Leader Very Important | TE68F | 5.35 | 0.42 | 1.73 | 1.32 | 4906 | 0.32 |
| Providing Better Opp for Kids Very Imp | TE68G | 64.91 | 1.08 | 2.49 | 1.58 | 4881 | 0.68 |
| Correcting Social Inequalities Very Imp | TE683 | 10.31 | 0.63 | 2.10 | 1.45 | 4898 | 0.43 |
| Having Children Very [mportant | TE6BK | 47.92 | 1.08 | 2.30 | 1.52 | 4903 | 0.71 |
| Having Leisure Time Very Important | TE68L | 70.08 | 0.99 | 2.29 | 1.51 | 4913 | 0.65 |
| Mean |  |  |  | 2.25 | 1.50 |  |  |
| Minimum |  |  |  | 1.73 | 1.32 |  |  |
| Maximum |  |  |  | 2.72 | 1.65 |  |  |
| Standard Deviation |  |  |  | 0.23 | 0.07 |  |  |
| Median |  |  |  | 2. 22 | 1.49 |  |  |

High School and Beyond Third Follow-Up Estimated Percentages, Standard Errors and Design Effects, Using Third Follow-Up Weights Senior Cohort - Received a Four-Year Degree

| Survey Item (or Composite Variable) |  | Estimate | SE | DEFF | DEFT | $N$ | SE-SRS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working at Full or Part Time Job, Feb '86 | TE3A | 80.89 | 1.26 | 1.91 | 1.38 | 1853 | 0.91 |
| Taking Acadenic Courses, Feb '86 | TE3C | 8.79 | 0.91 | 1.89 | 1.38 | 1853 | 0.66 |
| Looking For Work, Feb '86 | TE3I | 8.38 | 0.89 | 1.93 | 1.39 | 1853 | 0.64 |
| Currently Married | TE41 | 23.98 | 1.41 | 2.01 | 1.42 | 1852 | 0.99 |
| Currently Divorced | TEA1 | 0.62 | 0.29 | 2.47 | 1.57 | 1852 | 0.18 |
| Currently Have One or More Children | TE49 | 5.54 | 0.78 | 2.15 | 1.46 | 1851 | 0.53 |
| Expect to Have Three or More Children | TE48 | 37.79 | 1.64 | 2.06 | 1.43 | 1808 | 1.14 |
| In PSE 84-86: Earned No Degree | TE21I-22I | 0.62 | 0.31 | 2.37 | 1.54 | 1570 | 0.20 |
| In PSE 84-86: Received Vocational Degree | TE21H-22H | 3.13 | 0.68 | 2.37 | 1.54 | 1570 | 0.44 |
| In PSE 84-86: Received 4 Year Degree | TE21H-22H | 95.29 | 0.79 | 2.15 | 1.47 | 1570 | 0.53 |
| Enrolled in PSE, Oct 'g4 | TE21C-22C | 54.53 | 1.63 | 1.98 | 1.41 | 1847 | 1.16 |
| Enrolled in PSE, Oct ${ }^{\text {e }} 85$ | TE21C-22C | 27.07 | 1.54 | 2.23 | 1.49 | 1847 | 1.03 |
| In PSE 84-86: V. Dissat W/Career Couns | TE28E | 7.26 | 0.93 | 2.10 | 1.45 | 1623 | 0.64 |
| In PSE 84-86: Some Sat With Curriculuin | TE28I | 49.25 | 1.70 | 1.88 | 1.37 | 1624 | 1.24 |
| Applied for Grad/Professional School | TE39 | 22.14 | 1.44 | 2.20 | 1.48 | 1815 | 0.97 |
| If Employed 84-86, 1st Job Clerical | TEBA | 15.61 | 1.25 | 2.13 | 1.46 | 1787 | 0.86 |
| Had Any Job Between 84-86. | TE7 | 97.27 | 0.51 | . 1.82 | 1.35 | 1855 | 0.38 |
| Did Not Receive Unemployment-'85 | TE17085 | 94.99 | 1.29 | 2.03 | 1.42 | 582 | 0.90 |
| Currently Registered to Vote | TE56 | 86.32 | 1.13 | 1.96 | 1.40 | 1822 | 0.81 |
| Have Voted Since 1984 | TE57 | 79.47 | 1.35 | 2.02 | 1.42 | 1822 | 0.95 |
| Active Participant in Service Org | TE59K | 3.77 | 0.65 | 2.10 | 1.45 | 1807 | 0.45 |
| Job Security Very Important | TE16C | 63.46 | 1.69 | 2.21 | 1.49 | 1804 | 1.13 |
| Success in Job Very important | TE68A | 82.11 | 1.25 | 1.95 | 1.40 | 1819 | 0.90 |
| Marrying the Right Person Very Important | TE688 | 86.37 | 1.12 | 1.94 | 1.39 | 1811 | 0.81 |
| Having Lots of Money Very Important | TE68C | 20.55 | 1.43 | 2.28 | 1.51 | 1819 | 0.95 |
| Being a Community Leader Very Important | TE68F | 8.92 | 0.92 | 1.89 | 1.37 | 1817 | 0.67 |
| Providing Better Opp for Kids Very Imp | TE686 | 52.13 | 1.57 | 1.79 | 1.34 | 1803 | 1.18 |
| Correcting Social Inequalities Very Imp | TE68J | 13.52 | 1.16 | 2.08 | -1.44 | 1818 | 0.80 |
| Having Children Very Important | TE68K | 49.39 | 1.73 | 2.16 | 1.47 | 1816 | 1.17 |
| Having Leisure Time Very Impartant | TE68L | 72.93 | 1.51 | 2.09 | 1.45 | 1819 | 1.04 |
| Mean |  |  |  | 2.07 | 1.44 | , |  |
| Minimuca |  |  |  | 1.79 | 1.34 |  |  |
| Maximum |  |  |  | 2.47 | 1.57 |  |  |
| Standard Deviation |  |  |  | 0.17 | 0.06 |  |  |
| Median |  |  |  | 2.07 | 1.44 |  |  |


[^0]:    * First follow-up questionnaire number

[^1]:    * Base year spss variable name

