

Contractor Report

High School and Beyond Second Follow-Up (1984) Sample Design Report



OERI

*Office of Educational
Research and Improvement
U.S. Department of Education
Center for Statistics*



High School and Beyond Second Follow-Up (1984) Sample Design Report

The National Opinion Research Center (NORC)

Calvin C. Jones
Bruce D. Spencer

Helen MacArthur
Project Officer
Center for Statistics

Prepared for the Center for Statistics under contract OE-300-82-0273 with the U.S. Department of Education. Contractors undertaking such projects are encouraged to express freely their professional judgment. This report, therefore, does not necessarily represent positions or policies of the Government, and no official endorsement should be inferred. This report is released as received from the contractor.

August 1986



Acknowledgments

The authors gratefully acknowledge the contributions of NORC and CS staff members who assisted in the production of this report. At NORC, Tucker Landy carried out programming tasks for the calculation of nonresponse rates. Ioanna Crawford and Thelma Bahadur performed programming tasks related to sample weights and nonresponse adjustments; and Christine Beard, Tucker Landy, and Tom Semrau produced standard errors from the BRR program.

Editorial review was provided by Penny Sebring. Rosemarie Boykin assisted with word processing, and Diane Bagues supervised the production of the final draft.

At CS, William B. Feters, and former Project Officer Ricky Takai provided valuable advice on various technical issues. We also wish to thank Jeffrey Owings for furnishing a copy of the BRR program and David A. Sweet, Director of Educational Outcomes, and C. Dennis Carroll, Chief of the Longitudinal Studies Branch, for their continued support and guidance.

TABLE OF CONTENTS

Page

1. INTRODUCTION.....1

1.1 Overview of High School and Beyond.....1

1.1.1 CS' Longitudinal Studies Program.....1

1.1.2 The HS&B Base Year Survey.....2

1.1.3 The HS&B First and Second Follow-Up Surveys.....3

1.2 Overview of Chapters 2 through 5.....4

2. SAMPLE DESIGN AND IMPLEMENTATION.....6

2.1 Base Year Survey Sample Design.....6

2.2 First Follow-Up Survey Sample Design.....9

2.3 High School Transcripts Sample Design (1980 Sophomore Cohort)....9

2.4 Second Follow-Up Survey Sample Design.....10

3. SAMPLE WEIGHTS.....15

3.1 General Approach to Weighting.....15

3.2 Weighting Procedures.....16

3.3 Results of Weighting.....19

4. NONRESPONSE ANALYSES.....22

4.1 General Considerations.....22

4.2 Analysis of Second Follow-Up Student Nonresponse Rates.....26

4.2.1 Student Nonresponse Rates: School Variables.....30

4.2.2 Second Follow-Up Student Nonresponse Patterns:
Student-Level Variables.....32

4.2.3 Summary of Nonresponse Analyses.....36

5. STANDARD ERRORS AND DESIGN EFFECTS.....37

5.1 Computational Procedures.....37

5.2 Design Effects.....42

5.3 Standard Errors and Design Effects for the Second Follow-Up....44

Appendix A: Design Effects and Sampling Errors

Appendix B: Senior Weights and Nonresponse Adjustments

Appendix C: Sophomore Weights and Nonresponse Adjustments

1. INTRODUCTION

The High School and Beyond second follow-up survey was conducted during the spring of 1984. This report provides information that fully documents major technical aspects of the second 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 second 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 CS' Longitudinal Studies Program

The mandate of the Center for Statistics (CS) 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, CS 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 NELS program was planned to utilize time-series data bases in two ways: (1) each cohort is surveyed at regular intervals over a span of years, and (2) comparable data is obtained from successive cohorts, permitting studies of trends relevant to educational and career development and societal roles. The NELS program thus far 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). The latter study included a sophomore as well as a senior cohort.

NLS-72 began with the collection of comprehensive base year data from over 22,000 high school seniors in the spring of 1972. Four follow-up surveys were conducted in the fall and winter of 1972, 1974, 1976, and 1979, using a combination of mail surveys and personal and telephone interviews.

HS&B was designed to inform federal and state policy in the decade of the 1980s. 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, and the second follow-up study occurred in the spring of 1984.

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, filled out by principals or school administrators, provided information about enrollment, staff, educational programs, facilities and services, dropout rates, 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 and Second 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 survey 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 focussed on postsecondary education, work, family formation, and selected attitudes.

1.2 Overview of Chapters 2 through 5

Chapter 2 summarizes the base year sample selection procedures and describes in detail the first follow-up procedures. It describes the sub-sampling plan that was 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 B and C.

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 second 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

¹M. R. Frankel, L. Kohnke, D. Buonanno, and R. Tourangeau, Sample Design Report (Chicago: NORC, 1981).

²R. Tourangeau, H. McWilliams, C. Jones, M. Frankel, F. O'Brien, High School and Beyond First Follow-Up (1982) Sample Design Report (Chicago: NORC, 1983).

2. SAMPLE DESIGN AND IMPLEMENTATION

2.1 Base Year Survey Sample Design¹

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 10th and 12th 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 a school was the sole member of its stratum. The realization of the sample by stratum is shown in table 2.1-2.

2.2 First Follow-Up 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 nonparticipants. 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 stratified multi-stage design.

Table 2.1-1

High School and Beyond Base Year School Sample Selections

Special Strata (oversampled)		Number
Alternative public		50
Cuban public		20*
Cuban Catholic		10*
Other Hispanic public		106*
High performance private		12
Other non-Catholic private (stratified by four census regions)		38
Black Catholic		30*
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

Stage 1: Sampling of Schools						
Stratum	Drawn in sample	Original schools*	Substituted schools	Total realized		
Regular public	808	585	150	735		
Alternative public	50	41	4	45		
Cuban public	20	11	0	11		
Other Hispanic public	106	72	30	102		
Regular Catholic	48	40	5	45		
Black Catholic	30	23	7	30		
Cuban Catholic	10	7	2	9		
High performance private	12	9	2	11		
Other non-Catholic private	38	23	4	27		
TOTAL	1,122	811	204	1,015		
Stage 2: Sampling of Students						
	Total drawn in sample	Absent, both Survey and Make-up days	Student refused	Parent refused	Partial materials missing**	Total realized
Number	70,704	8,278	1,759	223	2,174	58,270
Percent	100	12	3	-	3	82

*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 Cohort)

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 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 follow-up.

The sample for the second follow-up survey of the 1980 sophomore cohort was based upon the transcripts study design. Approximately 15,000 cases were selected from among the 18,500 retained for the transcript study. As was the case for the elder cohort, the younger cohort second follow-up sample includes disproportionate numbers of sample members from policy-relevant 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. Tables 2.4-1 through 2.4-4 present several alternative distributions of the second follow-up sample of the younger cohort.

NOTES TO CHAPTER 2

¹For further details on the base year sample design see M. Frankel, L. Kohnke, D. Buonanno, and R. Tourangeau, Sample Design Report (Chicago: NORC, 1981).

²The 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 CS 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 12th grade, or both was made part of the frame.

³Apart 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-of-scope 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.

⁴Tourangeau, H. McWilliams, C. Jones, M. Frankel, and F. O'Brien, High School and Beyond First Follow-Up (1982) Sample Design Report (Chicago: NORC, 1983).

Table 2.4-1

1980 Sophomore Cohort Second Follow-Up Sample
Distribution on Race/Ethnicity Typology

Student Status Category	Population Size		Second Follow-Up	
	N	% of Total	N	% of Total
Hispanic				
Cuban/Puerto Rican	89,674	2.4%	990	6.7%
High Achievement	85,762	2.3%	886	6.0%
Other Hispanic	299,802	7.9%	1,375	9.3%
Asian/Pacific Islander	46,835	1.2%	431	2.9%
Native American	48,418	1.3%	291	2.0%
Black				
High Achievement	84,544	2.2%	741	5.0%
Other	375,185	9.9%	1,295	8.7%
High Achievement/ Low-SES Whites	69,759	1.8%	388	2.6%
All Others	2,679,309	70.9%	8,428	56.8%
Total	3,779,288	100.0%	14,825	100.0%

NOTE: For this typology, sample members were assigned to ethnic or racial categories on a sequential or hierarchical basis. That is, individuals who reported Cuban or Puerto Rican origin or descent in either the base year or first follow-up were so classified in this typology. High achievement Hispanics were then classified among the remaining non-Cuban/non-Puerto Rican cases. (Since some Cubans and Puerto Ricans were also "High Achievement," the total number of high achievement Hispanics is larger than shown in this table. "Other Hispanics" were then classified from among all remaining cases not assigned to the two previous categories. This procedure was repeated sequentially for each remaining category in the table. The result is a distribution of mutually exclusive categories whose contents sum to the population or sample size. The distributions presented mask considerable overlap among groups within the sample (e.g., Blacks who are also Hispanic are classified as either Black or Hispanic but not both).

Table 2.4-2

1980 Sophomore Cohort Second Follow-Up Sample
Distribution on First Follow-Up Student Status Indicator

Student Status Category	Population Size		Second Follow-Up	
	N	% of Total	N	% of Total
Currently (1982) Enrolled	2,755,522	72.9%	11,012	74.3%
Dropout	512,439	13.6%	2,584	17.4%
Transfer	330,393	8.7%	753	5.1%
Early Graduate	180,934	4.8%	476	3.2%
Total	3,779,288	100.0%	14,825	100.0%

NOTE: Categories presented above result from screening of cases for the first follow-up survey. Dropouts who returned to complete degrees have been flagged in the second follow-up composite variable HSDIPLOM, included in the public release data files.

Table 2.4-3

1980 Sophomore Cohort Second Follow-Up Sample
Distribution on Base Year School Type

Base Year School Type	Population Size		Second Follow-Up	
	N	% of Total	N	% of Total
Public	3,425,292	90.6%	11,724	79.1%
Catholic	229,106	6.1%	2,704	18.2%
Other Private	124,890	3.3%	397	2.7%
Total	3,779,288	100.0%	14,825	100.0%

3. SAMPLE WEIGHTS

3.1 General Approach to Weighting

The general purpose of the weighting scheme 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 probabilities of selection through all stages of the sample selection process and on nonresponse adjustment factors computed within weighting cells. In this report, weights are shown separately for four subgroups: all second follow-up participants, second follow-up participants who participated in the base year and first follow-up surveys, second follow-up participants who took the senior test, and second follow-up participants who have transcript data. In addition to these four sets of weights, a raw weight, unadjusted for nonresponse in any of the three surveys, was also calculated and included on the data file. The raw weight provides the basis for analysts to construct additional weights, adjusted for the presence of virtually any combination of data elements (e.g., test scores, postsecondary school transcripts). Also included on the data file but not shown here are weights for base year participants and first follow-up participants.

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 five of the weights calculated for the senior and sophomore cohorts. These weights project to the population of approximately 3,040,000 high school seniors and 3,781,000 high school sophomores of 1980.

Table 3.1-1

Sample Case Weights

Weight	Applies to cases with:	Unweighted number of cases having these data	
		1980 Seniors	1980 Sophomores
TRWT2	Second follow-up questionnaire data and transcript data	0	12,142
FU2WT	Second follow-up questionnaire data	10,925	13,682
PANELWT3	Base year, first follow-up and second follow-up questionnaire data	10,158	12,432
TESTWT2	Second follow-up questionnaire data and senior test data	9,458	10,786
RAWWT	All second follow-up selections	11,995	14,825

Table 2.4-4

1980 Sophomore Cohort Second Follow-Up Sample
Distribution on Selected Individual Characteristics

Student Characteristic	Population Size		Second Follow-Up	
	N	% of Total	N	% of Total
Parent Data Available	364,011	9.6%	2,534	17.1%
Parent Data AND PSE Plans or High Achievement	175,791	4.7%	2,049	13.8%
Transcript Data	3,344,251	88.5%	13,024	87.9%
Twin Data*	39,984	1.1%	163	1.1%

NOTE: Row categories in this table are not mutually exclusive.

*Sampled twins only. An additional 275 non-sampled co-twins were included in the HS&B Transcripts Study. Approximately 140 non-sampled co-twins were retained in the second follow-up, yielding about 150 twin pairs.

3.2 Weighting Procedures

The second follow-up weighting procedures consisted of two basic steps:

Step 1. Calculation of a preliminary follow-up weight based on the inverse of the cumulative probability of selection for the base year sample, first follow-up and (for 1980 sophomores) the subsample retained for the second follow-up survey. This new raw weight is simply the first follow-up raw weight adjusted for the probability of retention in the second follow-up survey.

Step 2. Adjustment of this preliminary weight to compensate for "unit" nonresponse, that is, for non-completion of an entire questionnaire or some combination of documents or surveys. (The exception is the raw weight, RAWWT, which is, 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 (RAWWT) based on the inverse of the probability of selection (retention) for the various follow-ups and supplemental studies. For seniors the raw weights are identical to the raw weights for the first follow-up sample (see Tourangeau, et al., 1983, chapter 3). For sophomores the raw weights for a case equals the raw weights for the transcript sample (Tourangeau, et al., chapter 6) divided by the conditional probability of selection into the second follow-up given that the case was selected into the transcript sample.

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 TRWT2, FU2WT, PANELWT3, and TESTWT2, but the approach is similar for each weight. Cases were distributed among weighting cells. Then 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, test and/or transcript data was 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 0 to produce final weights of 0 (zero) for these cases. Thus, the nonresponse adjustment amounts to distributing the preliminary weights of the nonparticipants proportionately among the participants in their weighting cells.

The weighting cells were defined by cross classifying cases by several variables. For sophomore weights FU2WT and TRWT2 the cells were defined by the intersection of the following variables:

- (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/Ethnicity
 - (1) Hispanic
 - (2) non-Hispanic black
 - (3) non-Hispanic white and other
- (5) Base year test quartile

for non-dropouts:	OR	for dropouts:
(0) no test data available		(0) no test data available
(1) lowest quartile		(1) below median
(2) second quartile		(2) above median
(3) third quartile		
(4) highest quartile		

For sophomore weights TESTWT2 and PANELWT3 the weighting cells were defined as above except that base year test quartile was not used.

For senior weight FU2WT the cells were defined by:

- (1) Base year participation
 - (1) Non-participant
 - (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/Ethnicity (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

For senior PANELWT3 the cells were defined as above except that base year participation and base year test quartile were not used. For senior TESTWT2 the cells were defined as for PANELWT3 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 second follow-up 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 second follow-up survey.

Table 3.3-1

High School and Beyond Second Follow-Up
 Statistical Properties of Sample Weights
 Senior Cohort

Weight	RAWWT	PANELWT3	FU2WT	TSTWT2
Mean	253	299	278	321
Variance	69,496	91,109	88,103	106,579
Standard Deviation	264	302	297	326
Coefficient of Variation	1.04	1.01	1.07	1.02
Minimum	1.09	1.18	1.10	1.92
Maximum	1,081	926	1,621	1,001
Skewness	1.02	.912	1.242	.954
Kurtosis	-.396	-1.005	.681	-.896
Number of Cases	11,995	10,158	10,925	9,458

Table 3.3-2

High School and Beyond Second Follow-Up
 Statistical Properties of Sample Weights
 1980 Sophomore Cohort

Weight	RAWWT	FU2WT	PANELWT3	TSTWT2	TRWT2
Mean	255	276	304	351	311
Variance	57,703	71,600	66,279	89,571	91,016
SD*	240	268	257	299	302
CV*	.942	.968	.846	.854	.969
Minimum	1.45	1.45	1.67	2.33	1.45
Maximum	3,098	3,379	3,882	4,421	3,914
Skewness	2.38	2.81	1.78	1.81	3.28
Kurtosis	11.9	16.0	10.2	10.3	22.0
Number of Cases	14,825	13,682	12,423	10,786	12,142

*SD = Standard Deviation; CV = Coefficient of Variation.

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 stratum 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.¹ The bias may be expressed as:

$$\text{Bias} = \bar{Y}_R - \bar{Y} \quad (1)$$

in which

\bar{Y}_R = a parameter (e.g., a mean) characterizing the population of respondents

\bar{Y} = the corresponding parameter characterizing the entire population

For many simple parameters, such as means and proportions, the population parameter (\bar{Y}) is a weighted average of the stratum parameters (\bar{Y}_R and \bar{Y}_{NR}):

$$\bar{Y} = P(\bar{Y}_{NR}) + (1 - P)\bar{Y}_R \quad (2)$$

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:

$$\text{Bias} = P(\bar{Y}_R - \bar{Y}_{NR}) \quad (3)$$

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 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, nonparticipating students were not dropped from the sample; they remained eligible for selection into the first and second follow-up samples.

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

$$\text{Bias} = (\bar{Y}_{1R} - \bar{Y}) + (\bar{Y}_{2R} - \bar{Y}_{1R}) \quad (4)$$

in which

\bar{Y} = a parameter characterizing all students

\bar{Y}_{1R} = the corresponding parameter for all students attending cooperating schools

\bar{Y}_{2R} = the corresponding parameter for all cooperating students attending cooperating schools

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

$$\text{Bias} = P_1(\bar{Y}_{1R} - \bar{Y}_{1NR}) + P_2(\bar{Y}_{2R} - \bar{Y}_{2NR}) \quad (5)$$

in which

P = the proportion of the population of students attending schools that would have been nonrespondent schools;

\bar{Y}_{1NR} = the parameter describing the population of students attending nonrespondent schools;

P = the proportion of students attending respondent schools who would have been nonrespondents;

\bar{Y}_{2NR} = 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 (see the 1981 Sample Design Report, p. A-4). This figure is an estimate of \bar{Y}_{2R} , the population mean for all participating students at cooperating schools. Suppose that sophomores at cooperating schools average two more correct answers than sophomores attending refusal schools ($\bar{Y}_{1R} - \bar{Y}_{1NR} = 2$); suppose further that among sophomores attending cooperating schools, student respondents average one more correct answer than student nonrespondents ($\bar{Y}_{2R} - \bar{Y}_{2NR} = 1$). The base year school nonresponse rate was about .30 (Frankel, et al., Sample Design Report, p. 93) and, among the sophomores, the student nonresponse rate was about .12 (p. 124). With these figures as estimates of P_1 and P_2 , the bias can be calculated from equation (5):

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

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 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 refusal 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 introduced 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.

Chapter 4 of the first follow-up Sample Design Report describes the results of three types of analyses concerning nonresponse. Based on school questionnaire data, schools that participated during the base year were compared with all eligible schools. Based on first follow-up student data, base year student respondents were compared with nonrespondents. Finally, student nonresponse during the first follow-up survey was analyzed.

In section 4.2 we analyze student nonresponse during the second follow-up. The school-level nonresponse bias in second follow-up estimates is just the carryover from base year school nonresponse, which was addressed by the earlier analysis.

4.2 Analysis of Second Follow-Up 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 has the same effect on base year and first and second follow-up estimates--students attending refusal schools were not sampled in the base year and have no chance of inclusion in the first or second follow-up. For this reason, the estimates presented in the first follow-up Sample Design Report (chapter 4, tables 4.1 and 4.3) serve as estimates of the bias due to school nonresponse for the base year, first follow-up, and second follow-up surveys. Second, student nonresponse was much lower in the second follow-up than in the base year survey; other things being equal, the bias due to student nonresponse should be correspondingly smaller (cf. Equation [5]). Overall, the weighted student nonresponse rate during the second follow-up was 8.3 percent in the sophomore cohort (versus 12.0 percent during the base year) and 9.6 percent among the seniors (versus 15.2 percent during the base year). Thus, it is reasonable to expect that bias in second follow-up estimates due to student nonresponse is about 30 percent smaller than in base year estimates, where it is already small.

There were several causes of student nonparticipation in the second follow-up survey. Some students refused to cooperate; others could not be located or were unavailable at the time of the second follow-up survey; 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:

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

in which

P = the nonresponse rate

R = the number of responding students

NR = the number of nonresponding students

Nonresponse rates were calculated for each cohort by school-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, and second follow-up surveys is presented in table 4.2-1. This table presents frequencies and percentages of cases in each of eight cells. The totals presented in table 4.2-1 are not weighted.

Table 4.2-1

Participation Patterns for Base Year,
First Follow-Up, and Second Follow-Up Surveys
HS&B Sophomore and Senior Cohorts

Participation Pattern*			Frequency	Percent
<hr/>				
Sophomore Cohort				
<u>BY</u>	<u>1FU</u>	<u>2FU</u>		
N	N	N	99	0.7
N	N	Y	27	0.2
N	Y	N	115	0.8
N	Y	Y	835	5.6
Y	N	N	200	1.3
Y	N	Y	397	2.7
Y	Y	N	730	4.9
Y	Y	Y	<u>12,422</u>	<u>83.8</u>
Total			14,825	100.0
Senior Cohort				
<u>BY</u>	<u>1FU</u>	<u>2FU</u>		
N	N	N	61	0.5
N	N	Y	22	0.2
N	Y	N	39	0.3
N	Y	Y	373	3.1
Y	N	N	313	2.6
Y	N	Y	372	3.1
Y	Y	N	657	5.5
Y	Y	Y	<u>10,158</u>	<u>84.7</u>
Total			11,995	100.0

NOTE: Counts refer to main samples only, excluding nonsampled co-twins.

*BY = base year survey, 1FU = first follow-up survey, 2FU = second follow-up survey, N = no, Y = yes

4.2.1 Student Nonresponse Rates: School Variables

This section examines nonresponse to the second 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.

Table 4.2.1-1 indicates that the highest nonresponse rate for the sophomore cohort occurred among alternative school students (21.4 percent) and the lowest among students at Catholic schools (6.3 percent). Among seniors, alternative public school students had the highest nonresponse rate (17.5 percent) and regular public school students the lowest (9.2 percent).

There is moderate variation in nonresponse by region, although in both cohorts, students selected at schools in the West show the highest rate of nonresponse (12.4 percent for the sophomores and 12.6 percent for the seniors). The nonresponse rates in the other regions are, for both cohorts, around 7 to 10 percent.

Table 4.2.1-1

Weighted Student Nonresponse Rates by Selected School Characteristics
(figures are percents)

Characteristic	Sophomore cohort	Senior cohort
Total population	8.3	9.6
School type:		
Regular public	8.2	9.2
Hispanic public	11.3	13.4
Alternative public	21.4	17.5
Non-Catholic private	10.0	13.2
Catholic	6.3	9.9
Region:		
Northeast	8.4	10.6
North Central	7.5	7.3
South	6.8	9.0
West	12.4	12.6
Urbanization:		
Urban	11.8	12.6
Suburban	8.6	9.7
Rural	5.2	7.2
Percent black:		
25% or less	7.6	8.5
Greater than 25%	10.6	12.5
Average enrollment:		
100 or less	8.0	9.0
101-325	6.0	9.1
326-550	7.8	9.1
More than 550	11.6	10.1

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 (11.8 percent for the sophomore cohort and 12.6 percent for the senior), next highest for students from suburban schools (8.6 and 9.7 percent) both cohorts, and lowest for students from rural schools (5.2 and 7.2 percent).

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 is slightly larger for the senior cohort (12.5 versus 8.5 percent) than for the sophomores (10.6 versus 7.6 percent).

Student nonresponse seems to show a complex relationship to school size. For sophomores, the rates are lowest for schools with between 101 and 325 students per class with higher rates among students who attended the smallest and largest schools. For seniors the rates are about the same for schools with 100 or fewer, 101-325, or 326-550 students (about 9%), but they are larger for larger schools, i.e., those with more than 550 students. These findings are generally consistent with the nonresponse patterns from the first follow-up.

4.2.2 Second Follow-Up Student Nonresponse Patterns: Student-Level Variables

In this section, the student nonresponse rates to the second follow-up survey are analyzed by student-level variables, including demographic characteristics, academic aptitude, attitude toward school, and self-reported school-related behavior. Students were classified by their responses to the base year questionnaire for everything but student status (for which first follow-up data were used).

Table 4.2.2-1 shows the weighted rate of nonresponse by race, sex, high school academic program, base year SES, test quartile, and student status. The category "other/unknown" is a general classification that includes both missing data and data for respondents who 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 fact that many of those students who were selected for inclusion in the base-year survey but who for whatever reason did not participate, also declined to participate in the follow ups. These triple nonparticipants could only be classified in the unknown category, elevating the nonresponse rate for that group.

There is some variation in student nonresponse by race/ethnicity. Blacks and Hispanics show the highest nonresponse rate in both cohorts but a substantial portion of the second follow-up student nonrespondents were also base year and first follow-up nonrespondents and could not be classified by race. For this reason, there is some uncertainty about the actual nonresponse rates for the different races.

In both cohorts, males exhibit a higher nonresponse rate than females. The difference is 3.9 percent in the sophomore cohort (10.3 percent for males versus 6.4 percent for females) and 3.6 percent in the senior cohort (11.5 versus 7.9 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. The differences among the programs are not large.

In each cohort, although differences were small, nonresponse was highest for students classified in the lowest SES level (7.1 percent in the sophomore cohort, 8.2 percent in the senior cohort). The lowest nonresponse rates were observed for students classified in the highest

Table 4.2.2-1

Weighted Student Nonresponse Rates
by Selected Student Characteristics

Characteristic	Sophomore cohort	Senior cohort
Total population	8.3	9.6
Race/Ethnicity:		
White	5.8	7.2
Black	8.4	10.9
Hispanic	12.1	10.5
Other/unknown	37.2	41.9
Sex:		
Male	10.3	11.5
Female	6.4	7.9
Academic program:		
General	9.5	8.0
Academic	5.2	6.9
Vocational	6.4	8.5
Other/unknown*	68.9	19.4
SES quartile in base year:		
Highest quartile	5.2	6.7
Middle two quartiles	6.2	7.6
Lowest quartile	7.1	8.2
Other/unknown*	35.4	19.7
Test quartile:		
Highest quartile	3.9	5.0
Middle two quartiles	6.0	7.0
Lowest quartile	9.4	9.9
Other/unknown	48.7	16.7
Student status:		
No postsecondary education	NA	16.1
Only vocational postsecondary education	NA	6.1
Other postsecondary education	NA	4.9

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

SES category (5.2 and 6.7 percent). There is an inverse relation between test quartile and rate of nonresponse for each cohort. For the senior cohort, students classified in the lowest quartile had rates of nonresponse about twice as large as students classified in the highest quartile (9.9 percent versus 5.0 percent); the difference is even more pronounced for sophomores (9.4 versus 3.9 percent).

Table 4.2.2-1 also shows that the seniors who had no postsecondary education had larger nonresponse rates than students who had only vocational postsecondary education (16.1 versus 6.1), and they in turn had larger nonresponse than students who had some non-vocational postsecondary education (6.1 versus 4.9 percent).

These differences across groups in response rates are for the most part similar to those observed during the base year and first follow-up surveys. A picture of student nonrespondents is beginning to emerge from the analyses, which suggest 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 nonresponse than students absent infrequently; students in vocational or general programs were more likely to be nonrespondents than students in academic programs.

4.2.3 Summary of Nonresponse Analyses

The analyses presented here and in Frankel et al., (1981) and Tourangeau et al., (1983) 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 second follow-up estimates.
- (2) The student-level bias component in base year estimates is also small, averaging about .5 percent for percentage estimates concerning either cohort.
- (3) The student-level bias component in first and second follow-up estimates is limited by the nonresponse rates, which for both cohorts were about one-half to two-thirds 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 first follow-up estimates or second follow-up estimates.

Each of these conclusions must be given some qualification. 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, first follow-up, and second follow-up estimates.

NOTES TO CHAPTER 4

¹G. Cochran, Sampling Techniques, 3rd ed. (New York: John Wiley, 1977), 361.

5. STANDARD ERRORS AND DESIGN EFFECTS

This chapter examines the standard errors for statistics--such as means and proportions--derived from the second follow-up data sets. Most researchers are familiar with the use of standard errors 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 second follow-up were selected using stratified, 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 second follow-up 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

$$\bar{x}_{srs} = \sum x_i / n \quad (1)$$

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

$$r = \frac{\sum \sum y_{hij}}{\sum x_{hi}} = y/x \quad (2)$$

in which

y_{hij} = the weighted value for student j
from school i in stratum h ,

x_{hi} = the estimated size of school i in
stratum h .

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 Frankel¹ 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 shown² that the variance of r (i.e., the square of the standard error of r) is

$$E(r - R)^2 = E \left(\frac{dy - Rdx}{X} \right) \left(\frac{1}{1 + dx/X} \right)^2 \quad (3)$$

in which

$E(r - R)^2$ = the expected value of the squared difference between the population parameter R and the sample estimate r

dy = the difference between the sample estimate y and the population value Y

X = the population size

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 (i.e., dx/X) is ignored, it can be shown that (3) reduces to:

$$E(r - R)^2 = 1/X^2 (Var_y + R^2 Var_x - 2 R Cov_{xy}) \quad (4)$$

in which

Var_y = the variance of y

Var_x = the variance of x

Cov_{xy} = the covariance of x and y

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 argument³ 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 n/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 half-sample 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 half-samples 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 half sample with the overall estimate:

$$\text{Var } (r) = (r_{1k} - r)^2 \quad (5)$$

in which

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

The final estimate for the variance of r is the average of Var_k across all the replicates. The estimate r need not be a ratio mean; the logic of BRR applies to any type of estimate, giving the method its broad generality.

Jackknife repeated replication (JRR). Equation (5) shows that the variance of a sample statistic can be estimated 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.

Frankel⁶ 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:

$$\text{Var} = (r_{1h} - r_h)^2 \quad (6)$$

in which

$$\begin{aligned} r_{1h} &= \text{an estimate based on one of the primary selections from} \\ &\quad \text{stratum } h, \\ r_h &= \text{the corresponding estimate based on both primary} \\ &\quad \text{selections from the stratum.} \end{aligned}$$

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, CS 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 BRR, the original 26 school strata⁷ were divided into 90 "computing" strata. Within each computing stratum, the primary selections were randomly divided into two groups, which were treated as "pseudo-primaries." The BRR program thus treats the sample as though it included two primary selections from each of 90 strata.⁸

Previous empirical investigation⁹ indicated that Taylor Series, BRR 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 is 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:

$$\text{Var}(\bar{x}) = \text{Var}_{\text{SRS}} \times \text{Cluster} \times \text{Strat} \times \text{Disprop} \quad (7)$$

in which

$\text{Var}(\bar{x})$ = the actual variance of a sample estimate

Var_{srs} = the estimate variance that would be obtained if the sample were treated as a simple random sample

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

$\text{Var}(\bar{x})$ can be estimated from sample data using any of the techniques considered earlier.

The ratio of $\text{Var}(\bar{x})$ to Var_{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:

$$\begin{aligned} \text{DEFT} &= (\text{DEFF})^{1/2} && (10) \\ &= (\text{Var}(\bar{x}) / \text{Var}_{\text{srs}})^{1/2} \\ &= \text{se}(\bar{x}) / \text{se}_{\text{srs}} \end{aligned}$$

5.3 Standard Errors and Design Effects for the Second Follow-Up

Standard errors and design effects were computed for thirty statistics for 10 domains within each of the two cohorts. The domains were (for seniors and sophomores separately): total population; Hispanics; blacks; whites and other's; persons in the bottom quartile, middle half, or top quartile of the socioeconomic status scale; persons who never attend a postsecondary institution; persons with continuous attendance at a postsecondary institution; and persons with discontinuous attendance at postsecondary institutions. The statistics were all percentages chosen to represent the full range of percentage estimates in the data from very small to very large; e.g., 1.6 percent of the cases had earned a vocational degree, and 91.9 percent reported having used a pocket calculator. (The exact statistics or variables can be found in appendix A.)

The DEFTS for the thirty variables in the 10 domains and two cohorts were fairly constant across variables, domains, and cohorts, except that DEFTS for Hispanics were larger than for the other domains (see Table 5.3-1). A reasonable and simple way to use the DEFTS for calculating standard errors for this database is to use one DEFT for the Hispanic sophomore cohort, one for the Hispanic senior cohort, and one DEFT for all other domains. The one DEFT to use should be either the

median of the DEFTS for the respective domains taken over all 30 variables, or for a more conservative approach, the seventy-fifth percentile. The medians and seventy-fifth percentiles for the DEFTS for the various domains are shown below:

	<u>Median DEFT</u>	<u>75th Percentile DEFT</u>
All domains	1.49	1.68
Hispanic seniors	1.99	2.17
Hispanic sophomores	1.83	1.97

Table 5.3-1

High School and Beyond Median Root Design Effects (DEFTS)
Second Follow-Up Survey, Weight=FU2WT

Domain	Senior	Sophomore
Total	1.69	1.54
Hispanics	1.99	1.84
Blacks	1.46	1.41
Whites and Others	1.40	1.44
Bottom Quartile SES	1.50	1.36
Two Middle Quartiles SES	1.33	1.42
Highest Quartile SES	1.34	1.42
Never Attended Postsecondary Institution	1.46	1.40
Continuous Enrollment in Postsecondary Institutions	1.48	1.47
Non-Continuous Enrollment in Postsecondary Institutions	1.54	1.42

Individual DEFTS for each variable for each domain are also shown in appendix A.

NOTES TO CHAPTER 5

¹L. Kish and M. Frankel, "Inference From Complex Samples," Journal of the Royal Statistical Society: Series B (Methodological), 36 (1974):2-37.

²L. Kish, Survey Sampling (New York: John Wiley, 1965), 206-208.

³M. Hansen, W. Hurwitz and W. Madow, Sample Survey Methods and Theory, vol. II (New York: John Wiley, 1953).

⁴W.E. Deming, "On Simplification of Sampling Design Through Replication With Equal Probabilities and Without Stages," Journal of the American Statistical Association, 31 (1956):24-53.

⁵M. Frankel, Inference from Survey Samples: An Empirical Investigation (Ann Arbor: Institute for Social Research, University of Michigan, 1971), 35.

⁶Frankel, 1971, *ibid.*

⁷M. Frankel, L. Kohnke, D. Buonanno, and R. Tourangeau, Sample Design Report, (Chicago: NORC, 1981), Chapter 3.

⁸The BRR program is available through CS. The public use data tapes include the computing strata and pseudo-primary selection codes.

⁹Frankel, 1971, *ibid.*

¹⁰R. Tourangeau, H. McWilliams, C. Jones, M. Frankel, and F. O'Brien, High School and Beyond First Follow-Up (1982) Sample Design Report (Chicago: NORC, 1983), Chapter 5, Tables 5.1, 5.2.

APPENDIX A:

Design Effects and Sampling Errors

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Senior Cohort - Total Population
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SE3A	65.49	0.61	1.80	1.34	10905	0.46
Taking Academic Courses, Feb '84	SE3C	32.63	0.88	3.84	1.96	10905	0.45
Looking for Work, Feb '84	SE3I	6.45	0.37	2.47	1.57	10905	0.24
Currently Married	SE57	24.17	0.77	3.52	1.88	10893	0.41
Have One or More Children	SE66A	16.68	0.72	3.65	1.91	9793	0.38
Expect To Have 3 or More Children	SE65	34.10	0.77	2.76	1.66	10470	0.46
Have Served on Military Active Duty	SE44	6.86	0.31	1.64	1.28	10885	0.24
If in PSE '82-'84: Earned No Degree	SE18J-20J	60.46	0.92	2.46	1.57	6941	0.59
If in PSE '82-'84: Earned Vocational Degree	SE18J-20J	1.62	0.25	2.72	1.65	6941	0.15
If in PSE '82-'84: Earned 4 Year College Degree	SE18J-20J	10.94	0.74	3.90	1.98	6941	0.37
Enrolled in Postsecondary Education, Oct '82	PSESOC32	42.82	0.97	4.16	2.04	10836	0.48
Enrolled in Postsecondary Education, Oct '83	PSESOC33	39.21	0.97	4.27	2.07	10809	0.47
If Employed: In Clerical Occupation, Oct '83	SE47A-50A	27.24	1.00	2.18	1.48	4322	0.68
Employed, Oct '83	JOBSOC33	73.92	0.63	2.21	1.49	10749	0.42
Have Used Pocket Calculator	SE9A2-A4	91.88	0.31	1.36	1.17	10553	0.27
Have Used Computer Terminal	SE9B2-B4	55.78	0.97	3.85	1.96	10096	0.49
Have Used Mainframe Computer	SE9E2-E4	29.06	0.73	2.49	1.58	9619	0.46
Have Used Video Tape Recorder	SE9F2-F4	54.75	0.92	3.39	1.84	9913	0.50
Have Used Audio Cassette Deck	SE9H2-H4	89.08	0.52	2.84	1.69	10226	0.31
Have Used Word Processor	SE9I2-I4	12.55	0.52	2.58	1.60	10453	0.32
Currently Registered To Vote	SE70	66.30	0.85	3.43	1.85	10600	0.46
Have Voted in Election within Last Two Years	SE71	46.80	0.88	3.28	1.31	10549	0.49
Being Successful in Job Very Important	SE72A	82.00	0.55	2.17	1.47	10564	0.37
Marrying the Right Person Very Important	SE72B	88.32	0.44	1.98	1.41	10541	0.31
Having Lots of Money Very Important	SE72C	26.08	0.77	3.24	1.80	10537	0.43
Being a Community Leader Very Important	SE72F	10.21	0.44	2.22	1.49	10503	0.30
Better Opportunities for Children Very Important	SE72G	67.05	0.84	3.34	1.83	10470	0.46
Correcting Inequalities Very Important	SE72J	13.83	0.46	1.87	1.37	10507	0.34
Having Children Very Important	SE72K	49.69	0.92	3.57	1.89	10530	0.49
Having Leisure Time Very Important	SE72L	73.93	0.72	2.84	1.69	10561	0.43
Mean				2.87	1.68		
Minimum				1.36	1.17		
Maximum				4.27	2.07		
Standard Deviation				0.78	0.24		
Median				2.80	1.69		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Senior Cohort - Hispanics
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SE3A	70.77	1.67	2.77	1.66	2053	1.00
Taking Academic Courses, Feb '84	SE3C	22.70	1.69	3.34	1.83	2053	0.92
Looking for Work, Feb '84	SE3I	7.97	1.27	4.51	2.12	2053	0.60
Currently Married	SE57	26.55	2.16	4.91	2.22	2052	0.97
Have One or More Children	SE66A	21.58	1.82	3.63	1.91	1857	0.95
Expect To Have 3 or More Children	SE65	36.18	2.17	4.01	2.00	1966	1.08
Have Served on Military Active Duty	SE44	5.15	0.59	1.46	1.21	2046	0.49
If in PSE '82-'84: Earned No Degree	SE18J-20J	68.79	2.21	3.04	1.74	1336	1.27
If in PSE '82-'84: Earned Vocational Degree	SE18J-20J	0.87	0.18	0.50	0.71	1336	0.25
If in PSE '82-'84: Earned 4 Year College Degree	SE18J-20J	3.05	0.49	1.08	1.04	1336	0.47
Enrolled in Postsecondary Education, Oct '82	PSESOC82	33.12	1.56	2.24	1.50	2039	1.04
Enrolled in Postsecondary Education, Oct '83	PSESOC83	29.61	1.59	2.46	1.57	2032	1.01
If Employed: In Clerical Occupation, Oct '83	SE47A-50A	31.58	2.79	3.10	1.76	860	1.59
Employed, Oct '83	JOBSOC93	71.62	2.10	4.40	2.10	2029	1.00
Have Used Pocket Calculator	SE9A2-A4	85.85	1.72	4.80	2.19	1973	0.78
Have Used Computer Terminal	SE9B2-B4	44.78	2.26	3.90	1.98	1889	1.14
Have Used Mainframe Computer	SE9E2-E4	25.32	2.21	4.67	2.16	1809	1.02
Have Used Video Tape Recorder	SE9F2-F4	47.17	2.31	3.97	1.99	1855	1.16
Have Used Audio Cassette Deck	SE9H2-H4	77.72	2.27	5.69	2.39	1913	0.95
Have Used Word Processor	SE9I2-I4	8.22	1.05	2.85	1.69	1948	0.62
Currently Registered To Vote	SE70	56.09	2.03	3.32	1.82	1984	1.11
Have Voted in Election within Last Two Years	SE71	38.60	2.29	4.37	2.09	1977	1.09
Being Successful in Job Very Important	SE72A	84.72	1.91	5.56	2.36	1973	0.81
Marrying the Right Person Very Important	SE72B	91.59	1.15	3.38	1.84	1968	0.63
Having Lots of Money Very Important	SE72C	32.36	2.36	5.01	2.24	1967	1.05
Being a Community Leader Very Important	SE72F	16.63	1.70	4.08	2.02	1957	0.84
Better Opportunities for Children Very Important	SE72G	84.24	1.58	3.68	1.92	1958	0.82
Correcting Inequalities Very Important	SE72J	21.82	1.97	4.46	2.11	1962	0.93
Having Children Very Important	SE72K	52.31	2.62	5.40	2.32	1963	1.13
Having Leisure Time Very Important	SE72L	67.55	2.33	4.87	2.21	1966	1.06
Mean				3.72	1.89		
Minimum				0.50	0.71		
Maximum				5.69	2.39		
Standard Deviation				1.27	0.38		
Median				3.94	1.99		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Senior Cohort - Blacks
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SE3A	56.97	1.25	1.81	1.35	2841	0.93
Taking Academic Courses, Feb '84	SE3C	25.65	1.48	3.26	1.81	2841	0.82
Looking for Work, Feb '84	SE3I	11.45	0.65	1.18	1.09	2841	0.60
Currently Married	SE57	14.04	0.75	1.32	1.15	2837	0.65
Have One or More Children	SE66A	30.96	1.33	2.10	1.45	2541	0.92
Expect To Have 3 or More Children	SE65	31.54	1.17	1.72	1.31	2712	0.89
Have Served on Military Active Duty	SE44	9.63	0.56	1.02	1.01	2834	0.55
If in PSE '82-'84: Earned No Degree	SE18J-20J	66.26	1.43	1.64	1.28	1788	1.12
If in PSE '82-'84: Earned Vocational Degree	SE18J-20J	0.79	0.20	0.91	0.96	1788	0.21
If in PSE '82-'84: Earned 4 Year College Degree	SE18J-20J	4.78	0.78	2.39	1.55	1788	0.50
Enrolled in Postsecondary Education, Oct '82	PSESOC82	36.88	1.17	1.66	1.29	2819	0.91
Enrolled in Postsecondary Education, Oct '83	PSESOC83	33.33	1.27	2.04	1.43	2812	0.89
If Employed: In Clerical Occupation, Oct '83	SE47A-50A	31.56	2.44	2.65	1.63	963	1.50
Employed, Oct '83	JOBSOC83	63.60	1.06	1.36	1.17	2798	0.91
Have Used Pocket Calculator	SE9A2-A4	85.95	0.97	2.12	1.46	2722	0.67
Have Used Computer Terminal	SE9B2-B4	48.30	1.76	3.19	1.79	2574	0.98
Have Used Mainframe Computer	SE9E2-E4	24.27	1.53	3.13	1.77	2461	0.86
Have Used Video Tape Recorder	SE9F2-F4	49.41	1.38	1.93	1.39	2539	0.99
Have Used Audio Cassette Deck	SE9H2-H4	81.50	1.33	3.05	1.75	2600	0.76
Have Used Word Processor	SE9I2-I4	10.32	1.01	2.99	1.73	2717	0.58
Currently Registered To Vote	SE70	71.75	1.21	1.98	1.41	2741	0.86
Have Voted in Election within Last Two Years	SE71	49.98	1.41	2.17	1.47	2723	0.96
Being Successful in Job Very Important	SE72A	88.01	1.04	2.80	1.67	2732	0.62
Marrying the Right Person Very Important	SE72B	87.75	1.06	2.85	1.69	2730	0.63
Having Lots of Money Very Important	SE72C	36.85	1.68	3.30	1.82	2721	0.92
Being a Community Leader Very Important	SE72F	18.29	1.28	2.96	1.72	2700	0.74
Better Opportunities for Children Very Important	SE72G	87.44	1.12	3.09	1.76	2703	0.64
Correcting Inequalities Very Important	SE72J	27.95	1.52	3.10	1.76	2700	0.86
Having Children Very Important	SE72K	40.36	1.36	2.08	1.44	2708	0.94
Having Leisure Time Very Important	SE72L	70.31	1.26	2.07	1.44	2725	0.88
Mean				2.26	1.48		
Minimum				0.91	0.96		
Maximum				3.30	1.82		
Standard Deviation				0.72	0.25		
Median				2.11	1.46		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Senior Cohort - Whites & others

Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SE3A	66.34	0.68	1.24	1.12	6011	0.61
Taking Academic Courses, Feb '84	SE3C	34.33	1.02	2.77	1.67	6011	0.61
Looking for Work, Feb '84	SE3I	5.62	0.41	1.91	1.38	6011	0.30
Currently Married	SE57	25.47	0.92	2.68	1.64	6004	0.56
Have One or More Children	SE66A	14.26	0.81	2.90	1.70	5395	0.48
Expect To Have 3 or More Children	SE65	34.32	0.90	2.08	1.44	5792	0.62
Have Served on Military Active Duty	SE44	6.58	0.39	1.49	1.22	6005	0.32
If in PSE '82-'84: Earned No Degree	SE18J-20J	59.01	1.05	1.74	1.32	3817	0.80
If in PSE '82-'84: Earned Vocational Degree	SE18J-20J	1.79	0.30	1.95	1.40	3817	0.21
If in PSE '82-'84: Earned 4 Year College Degree	SE18J-20J	12.40	0.88	2.72	1.65	3817	0.53
Enrolled in Postsecondary Education, Oct '82	PSESOC82	44.36	1.09	2.88	1.70	5978	0.64
Enrolled in Postsecondary Education, Oct '83	PSESOC83	40.73	1.10	2.99	1.73	5965	0.64
If Employed: In Clerical Occupation, Oct '83	SE47A-50A	26.42	1.09	1.53	1.24	2499	0.38
Employed, Oct '83	JOBSOC83	75.57	0.75	1.80	1.34	5922	0.56
Have Used Pocket Calculator	SE9A2-A4	93.14	0.36	1.19	1.09	5858	0.33
Have Used Computer Terminal	SE9B2-B4	57.59	1.06	2.59	1.61	5633	0.66
Have Used Mainframe Computer	SE9E2-E4	30.01	0.76	1.47	1.21	5349	0.63
Have Used Video Tape Recorder	SE9F2-F4	56.03	1.04	2.42	1.56	5519	0.67
Have Used Audio Cassette Deck	SE9H2-H4	90.91	0.51	1.80	1.34	5713	0.38
Have Used Word Processor	SE9I2-I4	13.18	0.58	1.70	1.30	5788	0.44
Currently Registered To Vote	SE70	66.24	1.02	2.73	1.65	5875	0.62
Have Voted in Election within Last Two Years	SE71	46.92	1.04	2.54	1.59	5844	0.65
Being Successful in Job Very Important	SE72A	80.96	0.66	1.66	1.29	5859	0.51
Marrying the Right Person Very Important	SE72B	88.18	0.56	1.76	1.33	5843	0.42
Having Lots of Money Very Important	SE72C	24.13	0.86	2.36	1.54	5849	0.56
Being a Community Leader Very Important	SE72F	8.64	0.44	1.43	1.20	5846	0.37
Better Opportunities for Children Very Important	SE72G	62.96	0.89	1.97	1.40	5809	0.63
Correcting Inequalities Very Important	SE72J	11.30	0.53	1.64	1.28	5845	0.41
Having Children Very Important	SE72K	50.82	1.11	2.99	1.70	5859	0.65
Having Leisure Time Very Important	SE72L	74.89	0.80	2.00	1.41	5870	0.57
Mean				2.09	1.43		
Minimum				1.19	1.09		
Maximum				2.99	1.73		
Standard Deviation				0.55	0.19		
Median				1.96	1.40		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Senior Cohort - Bottom Quartile Socio-Economic Scale
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SE3A	66.73	1.11	2.14	1.46	3852	0.76
Taking Academic Courses, Feb '84	SE3C	15.78	0.72	1.50	1.23	3852	0.59
Looking for Work, Feb '84	SE3I	11.39	0.90	3.09	1.76	3852	0.51
Currently Married	SE57	31.84	1.37	3.33	1.82	3845	0.75
Have One or More Children	SE66A	28.33	1.30	2.88	1.70	3457	0.77
Expect To Have 3 or More Children	SE65	30.20	0.97	1.65	1.28	3698	0.76
Have Served on Military Active Duty	SE44	8.35	0.65	2.12	1.46	3837	0.45
If in PSE '82-'84: Earned No Degree	SE18J-20J	74.60	1.17	1.95	1.40	2694	0.84
If in PSE '82-'84: Earned Vocational Degree	SE18J-20J	1.45	0.35	2.31	1.52	2694	0.23
If in PSE '82-'84: Earned 4 Year College Degree	SE18J-20J	2.58	0.35	1.31	1.15	2694	0.31
Enrolled in Postsecondary Education, Oct '82	PSESOC82	24.77	0.99	2.01	1.42	3828	0.70
Enrolled in Postsecondary Education, Oct '83	PSESOC83	21.24	0.87	1.73	1.31	3817	0.66
If Employed: In Clerical Occupation, Oct '83	SE47A-50A	29.79	1.76	2.39	1.55	1617	1.14
Employed, Oct '83	JOBSOC83	72.23	1.02	1.97	1.40	3791	0.73
Have Used Pocket Calculator	SE9A2-A4	87.62	0.91	2.83	1.58	3707	0.54
Have Used Computer Terminal	SE9B2-B4	40.03	1.16	1.98	1.41	3537	0.82
Have Used Mainframe Computer	SE9E2-E4	20.30	1.02	2.18	1.48	3390	0.69
Have Used Video Tape Recorder	SE9F2-F4	41.76	1.33	2.52	1.59	3461	0.84
Have Used Audio Cassette Deck	SE9H2-H4	83.30	1.02	2.66	1.63	3552	0.63
Have Used Word Processor	SE9I2-I4	7.36	0.62	2.07	1.44	3677	0.43
Currently Registered To Vote	SE70	60.72	1.31	2.68	1.64	3731	0.80
Have Voted in Election within Last Two Years	SE71	41.61	1.23	2.32	1.52	3719	0.81
Being Successful in Job Very Important	SE72A	78.85	1.20	3.21	1.79	3721	0.67
Marrying the Right Person Very Important	SE72B	88.44	0.84	2.56	1.60	3712	0.52
Having Lots of Money Very Important	SE72C	25.51	1.20	2.82	1.68	3715	0.72
Being a Community Leader Very Important	SE72F	8.38	0.54	1.40	1.18	3692	0.46
Better Opportunities for Children Very Important	SE72G	77.14	1.09	2.49	1.58	3689	0.69
Correcting Inequalities Very Important	SE72J	15.98	0.91	2.28	1.51	3694	0.60
Having Children Very Important	SE72K	48.43	1.17	2.03	1.43	3707	0.82
Having Leisure Time Very Important	SE72L	69.06	1.11	2.15	1.46	3721	0.76
Mean				2.28	1.50		
Minimum				1.31	1.15		
Maximum				3.33	1.82		
Standard Deviation				0.50	0.17		
Median				2.23	1.50		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Senior Cohort - Two Middle Quartiles Socio-Economic Status Scale
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SE3A	69.88	0.89	1.66	1.29	4412	0.69
Taking Academic Courses, Feb '84	SE3C	30.17	0.85	1.51	1.23	4412	0.69
Looking for Work, Feb '84	SE3I	4.70	0.45	1.99	1.41	4412	0.32
Currently Married	SE57	25.47	0.87	1.76	1.33	4413	0.66
Have One or More Children	SE66A	16.42	0.97	2.73	1.65	3975	0.59
Expect To Have 3 or More Children	SE65	35.10	1.10	2.26	1.50	4253	0.73
Have Served on Military Active Duty	SE44	7.39	0.51	1.68	1.29	4410	0.39
If in PSE '82-'84: Earned No Degree	SE18J-20J	62.00	1.23	1.76	1.33	2747	0.93
If in PSE '82-'84: Earned Vocational Degree	SE18J-20J	2.29	0.40	1.96	1.40	2747	0.29
If in PSE '82-'84: Earned 4 Year College Degree	SE18J-20J	8.29	0.59	1.26	1.12	2747	0.53
Enrolled in Postsecondary Education, Oct '82	PSESOC82	41.13	0.90	1.47	1.21	4386	0.74
Enrolled in Postsecondary Education, Oct '83	PSESOC83	36.70	0.83	1.30	1.14	4379	0.73
If Employed: In Clerical Occupation, Oct '83	SE47A-50A	28.23	1.26	1.48	1.22	1894	1.03
Employed, Oct '83	JOBSOC83	78.01	0.74	1.39	1.18	4359	0.63
Have Used Pocket Calculator	SE9A2-A4	92.57	0.46	1.32	1.15	4284	0.40
Have Used Computer Terminal	SE9B2-B4	55.26	1.34	2.98	1.73	4126	0.78
Have Used Mainframe Computer	SE9E2-E4	29.79	0.98	1.80	1.34	3923	0.73
Have Used Video Tape Recorder	SE9F2-F4	54.62	0.95	1.47	1.21	4048	0.78
Have Used Audio Cassette Deck	SE9H2-H4	90.33	0.61	1.78	1.33	4178	0.46
Have Used Word Processor	SE9I2-I4	12.06	0.75	2.25	1.50	4237	0.50
Currently Registered To Vote	SE70	66.99	1.06	2.19	1.48	4302	0.72
Have Voted in Election within Last Two Years	SE71	47.76	1.16	2.30	1.52	4273	0.76
Being Successful in Job Very Important	SE72A	82.30	0.71	1.48	1.22	4285	0.58
Marrying the Right Person Very Important	SE72B	88.43	0.56	1.31	1.14	4274	0.49
Having Lots of Money Very Important	SE72C	23.77	0.75	1.33	1.15	4272	0.65
Being a Community Leader Very Important	SE72F	9.47	0.64	2.04	1.43	4264	0.45
Better Opportunities for Children Very Important	SE72G	66.61	0.93	1.65	1.29	4254	0.72
Correcting Inequalities Very Important	SE72J	11.87	0.70	2.20	1.41	4268	0.50
Having Children Very Important	SE72K	50.84	1.04	1.85	1.36	4273	0.76
Having Leisure Time Very Important	SE72L	74.36	1.01	2.29	1.51	4284	0.67
Mean				1.81	1.34		
Minimum				1.26	1.12		
Maximum				2.98	1.73		
Standard Deviation				0.43	0.15		
Median				1.76	1.33		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1990 Senior Cohort - Highest Quartile Socio-Economic Status Scale
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SE3A	54.04	1.26	1.23	1.11	1932	1.13
Taking Academic Courses, Feb '84	SE3C	60.59	1.79	2.59	1.61	1932	1.11
Looking for Work, Feb '84	SE3I	3.54	0.56	1.77	1.33	1932	0.42
Currently Married	SE57	14.48	1.13	1.99	1.41	1927	0.80
Have One or More Children	SE66A	6.68	0.88	2.17	1.47	1743	0.60
Expect To Have 3 or More Children	SE65	39.12	1.51	1.77	1.33	1854	1.13
Have Served on Military Active Duty	SE44	4.03	0.51	1.30	1.14	1930	0.45
If in PSE '82-'84: Earned No Degree	SE18J-20J	29.65	2.17	2.22	1.49	982	1.46
If in PSE '82-'84: Earned Vocational Degree	SE18J-20J	1.58	0.68	2.92	1.71	982	0.40
If in PSE '82-'84: Earned 4 Year College Degree	SE18J-20J	32.06	2.33	2.45	1.56	982	1.49
Enrolled in Postsecondary Education, Oct '82	PSESOC82	71.29	1.73	2.81	1.68	1920	1.03
Enrolled in Postsecondary Education, Oct '83	PSESOC83	68.69	1.80	2.88	1.70	1913	1.06
If Employed: In Clerical Occupation, Oct '83	SE47A-50A	22.81	2.31	1.62	1.27	534	1.82
Employed, Oct '83	JOBSOC83	66.83	1.41	1.71	1.31	1902	1.08
Have Used Pocket Calculator	SE9A2-A4	96.12	0.54	1.48	1.22	1890	0.44
Have Used Computer Terminal	SE9B2-B4	75.95	1.51	2.28	1.51	1825	1.00
Have Used Mainframe Computer	SE9E2-E4	40.91	1.54	1.67	1.29	1704	1.19
Have Used Video Tape Recorder	SE9F2-F4	66.62	1.35	1.46	1.21	1777	1.12
Have Used Audio Cassette Deck	SE9H2-H4	94.30	0.69	1.64	1.28	1851	0.54
Have Used Word Processor	SE9I2-I4	20.12	1.25	1.82	1.35	1873	0.93
Currently Registered To Vote	SE70	75.81	1.55	2.47	1.57	1889	0.99
Have Voted in Election within Last Two Years	SE71	55.83	1.64	2.05	1.43	1882	1.14
Being Successful in Job Very Important	SE72A	86.40	1.06	1.80	1.34	1886	0.79
Marrying the Right Person Very Important	SE72B	86.60	1.00	1.62	1.27	1885	0.78
Having Lots of Money Very Important	SE72C	25.69	1.31	1.69	1.30	1879	1.01
Being a Community Leader Very Important	SE72F	12.85	0.91	1.39	1.18	1881	0.77
Better Opportunities for Children Very Important	SE72G	53.72	1.55	1.81	1.34	1868	1.15
Correcting Inequalities Very Important	SE72J	15.18	1.13	1.86	1.37	1879	0.83
Having Children Very Important	SE72K	51.07	1.57	1.86	1.36	1882	1.15
Having Leisure Time Very Important	SE72L	76.26	1.18	1.45	1.20	1884	0.98
Mean				1.93	1.38		
Minimum				1.23	1.11		
Maximum				2.92	1.71		
Standard Deviation				0.46	0.16		
Median				1.81	1.34		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Senior Cohort - No Attendance at Postsecondary Institutions
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SE3A	71.61	1.04	1.86	1.36	3493	0.76
Taking Academic Courses, Feb '84	SE3C	0.98	0.23	1.90	1.38	3493	0.17
Looking for Work, Feb '84	SE3I	10.02	0.74	2.12	1.46	3493	0.51
Currently Married	SE57	37.85	1.10	1.79	1.34	3488	0.82
Have One or More Children	SE66A	29.92	1.30	2.52	1.59	3124	0.82
Expect To Have 3 or More Children	SE65	28.23	1.13	2.10	1.45	3325	0.78
Have Served on Military Active Duty	SE44	12.13	0.70	1.60	1.27	3481	0.55
If in PSE '82-'84: Earned No Degree	SE18J-20J	86.06	0.81	1.82	1.35	3321	0.60
If in PSE '82-'84: Earned Vocational Degree	SE18J-20J	0.13	0.09	2.07	1.44	3321	0.06
If in PSE '82-'84: Earned 4 Year College Degree	SE18J-20J	0.00	0.00	n/a	n/a	3321	0.00
Enrolled in Postsecondary Education, Oct '82	PSESOC02	0.00	0.00	n/a	n/a	3499	0.00
Enrolled in Postsecondary Education, Oct '83	PSESOC03	0.00	0.00	n/a	n/a	3499	0.00
If Employed: In Clerical Occupation, Oct '83	SE47A-50A	21.76	1.26	1.67	1.29	1791	0.97
Employed, Oct '83	JOBSOC03	78.44	0.95	1.84	1.36	3451	0.70
Have Used Pocket Calculator	SE9A2-A4	84.05	0.81	1.63	1.28	3334	0.63
Have Used Computer Terminal	SE9B2-B4	29.16	1.24	2.33	1.53	3126	0.81
Have Used Mainframe Computer	SE9E2-E4	14.65	0.97	2.29	1.51	3041	0.64
Have Used Video Tape Recorder	SE9F2-F4	45.16	1.43	2.56	1.60	3101	0.89
Have Used Audio Cassette Deck	SE9H2-H4	81.37	1.04	2.28	1.51	3200	0.69
Have Used Word Processor	SE9I2-I4	4.88	0.57	2.33	1.53	3329	0.37
Currently Registered To Vote	SE70	53.88	1.37	2.55	1.60	3370	0.86
Have Voted in Election within Last Two Years	SE71	33.80	1.20	2.16	1.47	3353	0.32
Being Successful in Job Very Important	SE72A	75.83	0.98	1.76	1.32	3350	0.74
Marrying the Right Person Very Important	SE72B	89.35	0.80	2.25	1.50	3346	0.53
Having Lots of Money Very Important	SE72C	27.80	1.20	2.40	1.55	3345	0.77
Being a Community Leader Very Important	SE72F	7.69	0.56	1.47	1.21	3325	0.46
Better Opportunities for Children Very Important	SE72G	74.87	1.13	2.25	1.50	3316	0.75
Correcting Inequalities Very Important	SE72J	12.79	0.70	1.46	1.21	3325	0.58
Having Children Very Important	SE72K	50.04	1.37	2.51	1.58	3341	0.87
Having Leisure Time Very Important	SE72L	69.12	1.35	2.86	1.69	3354	0.80
Mean				2.09	1.44		
Minimum				1.46	1.21		
Maximum				2.86	1.69		
Standard Deviation				0.36	0.13		
Median				2.12	1.46		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Senior Cohort - Continuous Attendance at Postsecondary Institutions

Weight=FU2WT

Survey Item (or Composite Variable)	Item	Estimate	SE	DEFF	DEFT	N	SE-SRS
	Number						
Working Full Time, Feb '84	SE3A	46.88	1.26	1.95	1.40	3065	0.90
Taking Academic Courses, Feb '84	SE3C	86.03	1.01	2.60	1.61	3065	0.63
Looking for Work, Feb '84	SE3I	1.49	0.28	1.64	1.28	3065	0.22
Currently Married	SE57	7.75	0.88	3.32	1.82	3066	0.48
Have One or More Children	SE66A	2.22	0.37	1.74	1.32	2761	0.28
Expect To Have 3 or More Children	SE65	42.81	1.56	2.94	1.72	2962	0.91
Have Served on Military Active Duty	SE44	1.49	0.30	1.88	1.37	3064	0.22
If in PSE '82-'84: Earned No Degree	SE18J-20J	0.00	0.00	n/a	n/a	1130	0.00
If in PSE '82-'84: Earned Vocational Degree	SE18J-20J	1.90	0.57	1.97	1.40	1130	0.41
If in PSE '82-'84: Earned 4 Year College Degree	SE18J-20J	56.81	2.13	2.09	1.45	1130	1.47
Enrolled in Postsecondary Education, Oct '82	PSESOC82	100.00	0.00	n/a	n/a	3069	0.00
Enrolled in Postsecondary Education, Oct '83	PSESOC83	100.00	0.00	n/a	n/a	3069	0.00
If Employed: In Clerical Occupation, Oct '83	SE47A-50A	25.60	2.59	1.84	1.36	523	1.91
Employed, Oct '83	JOBSOC83	62.50	1.45	2.70	1.64	3010	0.88
Have Used Pocket Calculator	SE9A2-A4	98.17	0.37	2.30	1.52	3013	0.24
Have Used Computer Terminal	SE9B2-B4	82.51	1.10	2.47	1.57	2949	0.70
Have Used Mainframe Computer	SE9E2-E4	44.75	1.34	2.00	1.41	2751	0.95
Have Used Video Tape Recorder	SE9F2-F4	65.15	1.25	1.97	1.40	2865	0.89
Have Used Audio Cassette Deck	SE9H2-H4	96.42	0.52	2.31	1.52	2954	0.34
Have Used Word Processor	SE9I2-I4	21.22	1.02	1.85	1.36	2966	0.75
Currently Registered To Vote	SE70	79.93	1.18	2.61	1.62	3008	0.73
Have Voted in Election within Last Two Years	SE71	58.99	1.40	2.43	1.56	2994	0.90
Being Successful in Job Very Important	SE72A	90.48	0.81	2.29	1.51	3002	0.54
Marrying the Right Person Very Important	SE72B	87.72	0.89	2.20	1.48	2996	0.60
Having Lots of Money Very Important	SE72C	23.87	1.36	3.05	1.75	2996	0.78
Being a Community Leader Very Important	SE72F	13.69	1.01	2.59	1.61	2995	0.63
Better Opportunities for Children Very Important	SE72G	54.61	1.22	1.79	1.34	2973	0.91
Correcting Inequalities Very Important	SE72J	16.44	0.97	2.05	1.43	2996	0.68
Having Children Very Important	SE72K	50.48	2.04	4.99	2.23	2995	0.91
Having Leisure Time Very Important	SE72L	79.20	0.96	1.68	1.30	3001	0.74
Mean				2.34	1.52		
Minimum				1.64	1.28		
Maximum				4.99	2.23		
Standard Deviation				0.67	0.20		
Median				2.20	1.48		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Senior Cohort - Non-continuous Attendance at Postsecondary Institutions
Weight=FU2WT

Survey Item (or Composite Variable)	Item	Estimate	SE	DEFF	DEFT	N	SE-SRS
	Number						
Working Full Time, Feb '84	SE3A	73.23	0.86	1.56	1.25	4141	0.69
Taking Academic Courses, Feb '84	SE3C	24.76	0.98	2.13	1.46	4141	0.67
Looking for Work, Feb '84	SE3I	6.28	0.56	2.21	1.49	4141	0.38
Currently Married	SE57	22.98	1.04	2.53	1.59	4132	0.65
Have One or More Children	SE66A	14.58	0.93	2.59	1.61	3724	0.58
Expect To Have 3 or More Children	SE65	33.56	1.37	3.36	1.83	3987	0.75
Have Served on Military Active Duty	SE44	5.68	0.40	1.23	1.11	4132	0.36
If in PSE '82-'84: Earned No Degree	SE18J-20J	49.12	1.30	1.58	1.26	2330	1.04
If in PSE '82-'84: Earned Vocational Degree	SE18J-20J	3.96	0.59	2.13	1.46	2330	0.40
If in PSE '82-'84: Earned 4 Year College Degree	SE18J-20J	5.68	1.04	4.70	2.17	2330	0.48
Enrolled in Postsecondary Education, Oct '82	PSESOC82	43.64	1.19	2.35	1.53	4086	0.78
Enrolled in Postsecondary Education, Oct '83	PSESOC83	33.59	1.23	2.75	1.66	4061	0.74
If Employed: In Clerical Occupation, Oct '83	SE47A-50A	33.57	1.67	2.40	1.55	1921	1.08
Employed, Oct '83	JOBSOC83	78.34	1.00	2.41	1.55	4085	0.64
Have Used Pocket Calculator	SE9A2-A4	94.85	0.41	1.38	1.17	4009	0.35
Have Used Computer Terminal	SE9B2-B4	60.97	1.30	2.74	1.65	3853	0.79
Have Used Mainframe Computer	SE9E2-E4	31.13	1.16	2.30	1.52	3666	0.76
Have Used Video Tape Recorder	SE9F2-F4	56.18	1.46	3.27	1.81	3774	0.81
Have Used Audio Cassette Deck	SE9H2-H4	91.07	0.57	1.56	1.25	3894	0.46
Have Used Word Processor	SE9I2-I4	13.66	0.67	1.51	1.23	3959	0.55
Currently Registered To Vote	SE70	68.73	1.16	2.52	1.59	4021	0.73
Have Voted in Election within Last Two Years	SE71	50.13	1.37	3.01	1.73	4003	0.79
Being Successful in Job Very Important	SE72A	81.50	0.86	1.97	1.40	4014	0.61
Marrying the Right Person Very Important	SE72B	87.75	0.74	2.04	1.43	4002	0.52
Having Lots of Money Very Important	SE72C	25.33	1.19	2.99	1.73	4000	0.69
Being a Community Leader Very Important	SE72F	9.78	0.67	2.03	1.42	3989	0.47
Better Opportunities for Children Very Important	SE72G	68.08	1.32	3.20	1.79	3985	0.74
Correcting Inequalities Very Important	SE72J	12.68	0.63	1.43	1.20	3992	0.53
Having Children Very Important	SE72K	48.33	1.31	2.75	1.66	4000	0.79
Having Leisure Time Very Important	SE72L	74.27	1.06	2.36	1.54	4011	0.69
Mean				2.37	1.52		
Minimum				1.23	1.11		
Maximum				4.70	2.17		
Standard Deviation				0.72	0.23		
Median				2.36	1.54		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Sophomore Cohort - Total Population
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SY3A	58.51	0.67	2.53	1.59	13,666	0.42
Taking Academic Courses, Feb '84	SY3C	33.61	0.81	4.00	2.00	13,666	0.40
Looking for Work, Feb '84	SY3I	9.96	0.35	1.86	1.36	13,666	0.26
Currently Married	SY57	12.31	0.47	2.77	1.66	13,645	0.28
Have One or More Children	SY66A	11.80	0.43	2.18	1.48	13,326	0.29
Expect To Have 3 or More Children	SY65	33.92	0.55	1.78	1.33	13,065	0.41
Have Served on Military Active Duty	SY44	6.21	0.35	2.80	1.67	13,650	0.21
If in PSE '82-'84: Earned No Degree	SY18J-20J	70.40	0.64	1.35	1.16	6,888	0.55
If in PSE '82-'84: Earned Vocational Degree	SY18J-20J	1.11	0.14	1.23	1.11	6,888	0.13
If in PSE '82-'84: Earned 4 Year College Degree	SY18J-20J	1.47	0.21	2.14	1.46	6,888	0.14
Enrolled in Postsecondary Education, Oct '82	PSESOC82	44.68	0.70	2.67	1.63	13,573	0.43
Enrolled in Postsecondary Education, Oct '83	PSESOC83	42.78	0.79	3.43	1.85	13,558	0.42
If Employed: In Clerical Occupation, Oct '83	SY47A-50A	24.65	1.33	2.02	1.42	2,124	0.94
Employed, Oct '83	JOBSOC83	66.57	0.63	2.37	1.54	13,396	0.41
Have Used Pocket Calculator	SY9A2-A4	90.71	0.39	2.42	1.56	13,282	0.25
Have Used Computer Terminal	SY9B2-B4	47.49	0.74	2.77	1.66	12,754	0.44
Have Used Mainframe Computer	SY9E2-E4	23.33	0.60	2.51	1.59	12,402	0.38
Have Used Video Tape Recorder	SY9F2-F4	53.82	0.59	1.76	1.33	12,673	0.44
Have Used Audio Cassette Deck	SY9H2-H4	88.26	0.40	1.97	1.40	13,019	0.28
Have Used Word Processor	SY9I2-I4	9.09	0.40	2.56	1.60	13,107	0.25
Currently Registered To Vote	SY70	53.72	0.70	2.61	1.62	13,357	0.43
Have Voted in Election within Last Two Years	SY71	33.38	0.72	3.08	1.76	13,293	0.41
Being Successful in Job Very Important	SY72A	85.27	0.45	2.11	1.45	13,294	0.31
Marrying the Right Person Very Important	SY72B	87.63	0.41	2.03	1.43	13,288	0.29
Having Lots of Money Very Important	SY72C	29.40	0.64	2.61	1.61	13,286	0.40
Being a Community Leader Very Important	SY72F	10.04	0.40	2.34	1.53	13,233	0.26
Better Opportunities for Children Very Important	SY72G	72.66	0.56	2.05	1.43	13,212	0.39
Correcting Inequalities Very Important	SY72J	14.08	0.50	2.78	1.67	13,229	0.30
Having Children Very Important	SY72K	49.19	0.65	2.25	1.50	13,259	0.43
Having Leisure Time Very Important	SY72L	72.14	0.67	2.95	1.72	13,307	0.39
Mean				2.40	1.54		
Minimum				1.23	1.11		
Maximum				4.00	2.00		
Standard Deviation				0.56	0.18		
Median				2.37	1.54		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Sophomore Cohort - Hispanics

Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SY3A	61.23	2.04	3.86	1.97	2,204	1.04
Taking Academic Courses, Feb '84	SY3C	21.12	1.40	2.58	1.61	2,204	0.87
Looking for Work, Feb '84	SY3I	11.76	1.10	2.56	1.60	2,204	0.69
Currently Married	SY57	12.57	1.25	3.12	1.77	2,201	0.71
Have One or More Children	SY66A	17.63	1.70	3.95	1.99	1,989	0.85
Expect To Have 3 or More Children	SY65	34.42	1.86	3.23	1.80	2,101	1.04
Have Served on Military Active Duty	SY44	6.15	1.01	3.91	1.98	2,199	0.51
If in PSE '82-'84: Earned No Degree	SY18J-20J	74.01	2.00	2.55	1.60	1,226	1.25
If in PSE '82-'84: Earned Vocational Degree	SY18J-20J	1.10	0.37	1.57	1.25	1,226	0.30
If in PSE '82-'84: Earned 4 Year College Degree	SY18J-20J	0.43	0.16	0.75	0.87	1,226	0.19
Enrolled in Postsecondary Education, Oct '82	PSESOC82	32.53	1.71	2.93	1.71	2,196	1.00
Enrolled in Postsecondary Education, Oct '83	PSESOC83	29.91	1.84	3.53	1.88	2,189	0.98
If Employed: In Clerical Occupation, Oct '83	SY47A-50A	23.44	4.48	3.74	1.93	335	2.31
Employed, Oct '83	JOBSOC83	64.42	1.97	3.67	1.92	2,161	1.03
Have Used Pocket Calculator	SY9A2-A4	82.95	1.76	4.67	2.16	2,121	0.82
Have Used Computer Terminal	SY9B2-B4	33.74	1.89	3.27	1.81	2,048	1.04
Have Used Mainframe Computer	SY9E2-E4	17.40	1.25	2.21	1.49	2,022	0.84
Have Used Video Tape Recorder	SY9F2-F4	51.60	2.36	4.55	2.13	2,041	1.11
Have Used Audio Cassette Deck	SY9H2-H4	78.77	1.90	4.49	2.12	2,075	0.90
Have Used Word Processor	SY9I2-I4	6.52	0.71	1.71	1.31	2,099	0.54
Currently Registered To Vote	SY70	50.85	2.11	0.09	0.30	51	7.03
Have Voted in Election within Last Two Years	SY71	27.63	1.76	3.28	1.81	2,124	0.97
Being Successful in Job Very Important	SY72A	86.64	1.35	3.37	1.84	2,130	0.74
Marrying the Right Person Very Important	SY72B	87.38	1.27	3.13	1.77	2,130	0.72
Having Lots of Money Very Important	SY72C	38.73	1.95	3.41	1.85	2,126	1.06
Being a Community Leader Very Important	SY72F	15.91	1.80	5.10	2.26	2,116	0.80
Better Opportunities for Children Very Important	SY72G	84.02	1.43	3.23	1.80	2,123	0.80
Correcting Inequalities Very Important	SY72J	22.20	1.94	4.61	2.15	2,119	0.90
Having Children Very Important	SY72K	49.62	1.72	2.52	1.59	2,127	1.08
Having Leisure Time Very Important	SY72L	66.43	1.74	2.90	1.70	2,135	1.02
Mean				3.15	1.73		
Minimum				0.09	0.30		
Maximum				5.10	2.26		
Standard Deviation				1.11	0.39		
Median				3.25	1.81		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Sophomore Cohort - Blacks
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SY3A	46.06	1.72	2.42	1.55	2,041	1.10
Taking Academic Courses, Feb '84	SY3C	24.52	1.52	2.54	1.60	2,041	0.95
Looking for Work, Feb '84	SY3I	21.52	1.42	2.45	1.57	2,041	0.91
Currently Married	SY57	6.81	1.04	3.49	1.87	2,034	0.56
Have One or More Children	SY66A	22.37	1.60	2.63	1.62	1,794	0.98
Expect To Have 3 or More Children	SY65	29.46	1.46	1.98	1.41	1,937	1.04
Have Served on Military Active Duty	SY44	7.87	0.84	1.97	1.41	2,038	0.60
If in PSE '82-'84: Earned No Degree	SY18J-20J	71.11	2.08	2.20	1.48	1,042	1.40
If in PSE '82-'84: Earned Vocational Degree	SY18J-20J	0.90	0.39	1.81	1.34	1,042	0.29
If in PSE '82-'84: Earned 4 Year College Degree	SY18J-20J	1.15	0.45	1.82	1.35	1,042	0.33
Enrolled in Postsecondary Education, Oct '82	PSESOC82	32.57	1.41	1.82	1.35	2,017	1.04
Enrolled in Postsecondary Education, Oct '83	PSESOC83	34.05	1.51	2.04	1.43	2,010	1.06
If Employed: In Clerical Occupation, Oct '83	SY47A-50A	31.13	4.03	1.58	1.26	208	3.21
Employed, Oct '83	JOBSOC83	52.47	1.92	2.96	1.72	2,004	1.12
Have Used Pocket Calculator	SY9A2-A4	84.03	1.34	2.62	1.62	1,971	0.83
Have Used Computer Terminal	SY9B2-B4	37.17	1.51	1.84	1.36	1,898	1.11
Have Used Mainframe Computer	SY9E2-E4	20.31	1.06	1.27	1.13	1,837	0.94
Have Used Video Tape Recorder	SY9F2-F4	50.36	2.09	3.29	1.81	1,883	1.15
Have Used Audio Cassette Deck	SY9H2-H4	00.58	1.51	2.80	1.67	1,927	0.90
Have Used Word Processor	SY9I2-I4	6.68	0.71	1.60	1.27	1,961	0.56
Currently Registered To Vote	SY70	65.00	1.53	2.04	1.43	1,983	1.07
Have Voted in Election within Last Two Years	SY71	38.57	1.87	2.90	1.70	1,965	1.10
Being Successful in Job Very Important	SY72A	89.62	0.90	1.72	1.31	1,964	0.69
Marrying the Right Person Very Important	SY72B	84.71	1.10	1.82	1.35	1,959	0.81
Having Lots of Money Very Important	SY72C	38.94	1.54	1.96	1.40	1,958	1.10
Being a Community Leader Very Important	SY72F	15.43	1.15	1.96	1.40	1,951	0.82
Better Opportunities for Children Very Important	SY72G	92.13	0.78	1.62	1.27	1,949	0.61
Correcting Inequalities Very Important	SY72J	27.63	2.02	3.97	1.99	1,946	1.01
Having Children Very Important	SY72K	37.88	1.31	1.42	1.19	1,948	1.10
Having Leisure Time Very Important	SY72L	66.69	1.48	1.94	1.39	1,960	1.06
Mean				2.22	1.47		
Minimum				1.27	1.13		
Maximum				3.97	1.99		
Standard Deviation				0.63	0.20		
Median				1.98	1.41		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Sophomore Cohort - Whites and others
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SY3A	60.34	0.79	2.44	1.56	9,421	0.50
Taking Academic Courses, Feb '84	SY3C	36.38	0.91	3.35	1.83	9,421	0.50
Looking for Work, Feb '84	SY3I	7.83	0.30	1.17	1.08	9,421	0.28
Currently Married	SY57	13.21	0.53	2.32	1.52	9,410	0.35
Have One or More Children	SY66A	9.52	0.46	2.13	1.46	8,543	0.32
Expect To Have 3 or More Children	SY65	34.61	0.67	1.79	1.34	9,027	0.50
Have Served on Military Active Duty	SY44	5.94	0.39	2.55	1.60	9,413	0.24
If in PSE '82-'84: Earned No Degree	SY18J-20J	69.81	0.75	1.22	1.10	4,620	0.68
If in PSE '82-'84: Earned Vocational Degree	SY18J-20J	1.15	0.16	1.02	1.01	4,620	0.16
If in PSE '82-'84: Earned 4 Year College Degree	SY18J-20J	1.66	0.27	2.11	1.45	4,620	0.19
Enrolled in Postsecondary Education, Oct '82	PSESOC82	47.91	0.81	2.45	1.56	9,360	0.52
Enrolled in Postsecondary Education, Oct '83	PSESOC83	45.51	0.91	3.15	1.78	9,359	0.51
If Employed: In Clerical Occupation, Oct '83	SY47A-50A	24.05	1.53	2.04	1.43	1,581	1.07
Employed, Oct '83	JOBSOC83	69.15	0.65	1.85	1.36	9,231	0.48
Have Used Pocket Calculator	SY9A2-A4	92.57	0.41	2.24	1.50	9,190	0.27
Have Used Computer Terminal	SY9B2-B4	50.55	0.80	2.24	1.50	8,008	0.53
Have Used Mainframe Computer	SY9E2-E4	24.42	0.71	2.32	1.52	3,543	0.46
Have Used Video Tape Recorder	SY9F2-F4	54.61	0.73	1.90	1.38	8,749	0.53
Have Used Audio Cassette Deck	SY9H2-H4	90.44	0.36	1.32	1.15	9,017	0.31
Have Used Word Processor	SY9I2-I4	9.75	0.47	2.25	1.50	9,047	0.31
Currently Registered To Vote	SY70	52.11	0.77	2.20	1.48	9,233	0.52
Have Voted in Election within Last Two Years	SY71	33.08	0.74	2.29	1.51	9,204	0.49
Being Successful in Job Very Important	SY72A	84.41	0.52	1.87	1.37	9,200	0.38
Marrying the Right Person Very Important	SY72B	88.14	0.48	1.99	1.41	9,199	0.34
Having Lots of Money Very Important	SY72C	26.91	0.64	1.93	1.39	9,202	0.46
Being a Community Leader Very Important	SY72F	8.58	0.38	1.71	1.31	9,166	0.29
Better Opportunities for Children Very Important	SY72G	68.31	0.59	1.45	1.20	9,140	0.49
Correcting Inequalities Very Important	SY72J	11.05	0.46	1.98	1.41	9,164	0.33
Having Children Very Important	SY72K	51.01	0.69	1.74	1.32	9,184	0.52
Having Leisure Time Very Important	SY72L	73.60	0.75	2.67	1.63	9,212	0.46
Mean				2.06	1.42		
Minimum				1.02	1.01		
Maximum				3.35	1.33		
Standard Deviation				0.52	0.18		
Median				2.07	1.44		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Sophomore Cohort - Bottom Quartile - Socio-Economic Status Scale
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SY3A	57.70	0.99	1.46	1.21	3,656	0.82
Taking Academic Courses, Feb '84	SY3C	13.74	0.65	1.28	1.13	3,656	0.57
Looking for Work, Feb '84	SY3I	17.04	0.84	1.83	1.35	3,656	0.62
Currently Married	SY57	17.77	0.82	1.67	1.29	3,646	0.63
Have One or More Children	SY66A	18.53	0.88	1.69	1.30	3,271	0.68
Expect To Have 3 or More Children	SY65	29.70	1.08	1.97	1.40	3,494	0.77
Have Served on Military Active Duty	SY44	8.74	0.69	2.20	1.48	3,646	0.47
If in PSE '82-'84: Earned No Degree	SY18J-20J	78.27	1.00	1.44	1.20	2,451	0.83
If in PSE '82-'84: Earned Vocational Degree	SY18J-20J	0.88	0.22	1.30	1.14	2,451	0.19
If in PSE '82-'84: Earned 4 Year College Degree	SY18J-20J	0.43	0.19	2.17	1.47	2,451	0.13
Enrolled in Postsecondary Education, Oct '82	PSESOC82	23.23	0.81	1.34	1.16	3,630	0.70
Enrolled in Postsecondary Education, Oct '83	PSESOC83	21.79	0.67	0.94	0.97	3,624	0.69
If Employed: In Clerical Occupation, Oct '83	SY47A-50A	23.59	2.63	2.36	1.53	613	1.71
Employed, Oct '83	JOBSOC83	62.86	1.36	2.84	1.68	3,569	0.81
Have Used Pocket Calculator	SY9A2-A4	84.80	0.81	1.80	1.34	3,532	0.60
Have Used Computer Terminal	SY9B2-B4	31.45	0.83	1.09	1.04	3,367	0.80
Have Used Mainframe Computer	SY9E2-E4	14.80	0.97	2.49	1.58	3,308	0.62
Have Used Video Tape Recorder	SY9F2-F4	44.56	1.16	1.83	1.35	3,355	0.86
Have Used Audio Cassette Deck	SY9H2-H4	81.20	0.95	2.02	1.42	3,441	0.67
Have Used Word Processor	SY9I2-I4	5.43	0.48	1.58	1.26	3,514	0.38
Currently Registered To Vote	SY70	48.38	1.29	2.40	1.55	3,575	0.84
Have Voted in Election within Last Two Years	SY71	27.89	1.33	3.14	1.77	3,559	0.75
Being Successful in Job Very Important	SY72A	83.70	0.86	1.91	1.38	3,547	0.62
Marrying the Right Person Very Important	SY72B	88.48	0.76	2.02	1.42	3,550	0.54
Having Lots of Money Very Important	SY72C	28.31	1.01	1.79	1.34	3,546	0.76
Being a Community Leader Very Important	SY72F	10.44	0.78	2.28	1.51	3,533	0.51
Better Opportunities for Children Very Important	SY72G	83.44	0.85	1.86	1.37	3,542	0.62
Correcting Inequalities Very Important	SY72J	16.91	1.14	3.27	1.81	3,528	0.63
Having Children Very Important	SY72K	48.09	1.14	1.85	1.36	3,540	0.84
Having Leisure Time Very Important	SY72L	64.94	0.98	1.51	1.23	3,559	0.80
Mean				1.91	1.37		
Minimum				0.94	0.97		
Maximum				3.27	1.81		
Standard Deviation				0.54	0.19		
Median				1.84	1.36		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Sophomore Cohort - Middle Two Quartiles - Socio-Economic Status Scale
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SY3A	63.53	1.01	2.75	1.66	6,314	0.61
Taking Academic Courses, Feb '84	SY3C	31.42	0.86	2.17	1.47	6,314	0.58
Looking for Work, Feb '84	SY3I	8.45	0.37	1.13	1.06	6,314	0.35
Currently Married	SY57	12.37	0.63	2.28	1.51	6,307	0.41
Have One or More Children	SY66A	10.53	0.55	1.86	1.36	5,701	0.41
Expect To Have 3 or More Children	SY65	33.99	0.83	1.84	1.36	6,346	0.61
Have Served on Military Active Duty	SY44	6.61	0.47	2.28	1.51	6,312	0.31
If in PSE '82-'84: Earned No Degree	SY18J-20J	63.98	0.97	1.40	1.18	3,175	0.82
If in PSE '82-'84: Earned Vocational Degree	SY18J-20J	1.40	0.24	1.29	1.14	3,175	0.21
If in PSE '82-'84: Earned 4 Year College Degree	SY18J-20J	1.62	0.34	2.34	1.53	3,175	0.22
Enrolled in Postsecondary Education, Oct '82	PSESOC82	44.84	0.85	1.85	1.36	6,269	0.63
Enrolled in Postsecondary Education, Oct '83	PSESOC83	42.52	0.91	2.14	1.46	6,261	0.62
If Employed: In Clerical Occupation, Oct '83	SY47A-50A	27.06	1.83	1.79	1.34	1,060	1.36
Employed, Oct '83	JOBSOC83	71.85	0.88	2.35	1.53	6,204	0.57
Have Used Pocket Calculator	SY9A2-A4	92.59	0.50	2.26	1.50	6,129	0.33
Have Used Computer Terminal	SY9B2-B4	48.84	0.81	1.56	1.25	5,884	0.65
Have Used Mainframe Computer	SY9E2-E4	24.57	0.80	1.98	1.41	5,727	0.57
Have Used Video Tape Recorder	SY9F2-F4	53.98	0.90	1.91	1.38	5,855	0.65
Have Used Audio Cassette Deck	SY9H2-H4	89.84	0.54	1.90	1.38	6,019	0.39
Have Used Word Processor	SY9I2-I4	8.89	0.54	2.14	1.46	6,029	0.37
Currently Registered To Vote	SY70	53.65	1.01	2.53	1.59	6,162	0.64
Have Voted in Election within Last Two Years	SY71	34.49	0.96	2.52	1.59	6,131	0.61
Being Successful in Job Very Important	SY72A	86.31	0.63	2.09	1.45	6,146	0.44
Marrying the Right Person Very Important	SY72B	88.96	0.48	1.46	1.21	6,137	0.40
Having Lots of Money Very Important	SY72C	28.58	0.83	2.05	1.43	6,140	0.58
Being a Community Leader Very Important	SY72F	9.09	0.55	2.20	1.48	6,103	0.37
Better Opportunities for Children Very Important	SY72G	72.29	0.70	1.48	1.22	6,096	0.57
Correcting Inequalities Very Important	SY72J	12.36	0.56	1.74	1.32	6,108	0.42
Having Children Very Important	SY72K	50.35	0.69	1.15	1.07	6,129	0.64
Having Leisure Time Very Important	SY72L	73.37	0.81	2.07	1.44	6,146	0.56
Mean				1.95	1.39		
Minimum				1.13	1.06		
Maximum				2.75	1.66		
Standard Deviation				0.40	0.15		
Median				2.02	1.42		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Sophomore Cohort - Highest Quartile - Socio-Economic Status Scale
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SY3A	49.91	1.34	2.37	1.54	3,277	0.87
Taking Academic Courses, Feb '84	SY3C	65.09	1.57	3.56	1.89	3,277	0.83
Looking for Work, Feb '84	SY3I	2.76	0.45	2.49	1.58	3,277	0.29
Currently Married	SY57	5.87	0.71	3.02	1.74	3,275	0.41
Have One or More Children	SY66A	3.40	0.39	1.38	1.18	2,999	0.33
Expect To Have 3 or More Children	SY65	40.35	1.16	1.75	1.32	3,138	0.88
Have Served on Military Active Duty	SY44	3.23	0.37	1.40	1.18	3,277	0.31
If in PSE '82-'84: Earned No Degree	SY18J-20J	47.62	2.40	2.11	1.45	915	1.65
If in PSE '82-'84: Earned Vocational Degree	SY18J-20J	1.25	0.46	1.54	1.24	915	0.37
If in PSE '82-'84: Earned 4 Year College Degree	SY18J-20J	4.49	0.85	1.56	1.25	915	0.68
Enrolled in Postsecondary Education, Oct '82	PSESOC82	75.40	0.93	1.51	1.23	3,261	0.75
Enrolled in Postsecondary Education, Oct '83	PSESOC83	71.79	1.48	3.50	1.87	3,258	0.79
If Employed: In Clerical Occupation, Oct '83	SY47A-50A	24.63	2.86	1.63	1.28	370	2.24
Employed, Oct '83	JOBSOC83	61.86	1.11	1.67	1.29	3,230	0.85
Have Used Pocket Calculator	SY9A2-A4	95.71	0.51	2.00	1.41	3,224	0.36
Have Used Computer Terminal	SY9B2-B4	66.36	1.14	1.82	1.35	3,131	0.84
Have Used Mainframe Computer	SY9E2-E4	33.12	1.23	2.05	1.43	3,005	0.86
Have Used Video Tape Recorder	SY9F2-F4	64.54	1.30	2.27	1.51	3,090	0.86
Have Used Audio Cassette Deck	SY9H2-H4	95.10	0.47	1.53	1.24	3,171	0.38
Have Used Word Processor	SY9I2-I4	14.36	0.82	1.74	1.32	3,169	0.62
Currently Registered To Vote	SY70	62.29	1.27	2.22	1.49	3,217	0.85
Have Voted in Election within Last Two Years	SY71	40.07	1.23	2.01	1.42	3,202	0.87
Being Successful in Job Very Important	SY72A	86.86	0.76	1.64	1.28	3,206	0.60
Marrying the Right Person Very Important	SY72B	86.57	0.75	1.55	1.25	3,206	0.60
Having Lots of Money Very Important	SY72C	28.65	1.15	2.08	1.44	3,204	0.90
Being a Community Leader Very Important	SY72F	11.33	0.87	2.42	1.56	3,199	0.56
Better Opportunities for Children Very Important	SY72G	59.56	1.39	2.55	1.60	3,184	0.87
Correcting Inequalities Very Important	SY72J	12.96	0.88	2.21	1.49	3,207	0.59
Having Children Very Important	SY72K	49.31	1.34	2.28	1.51	3,200	0.88
Having Leisure Time Very Important	SY72L	78.63	0.89	1.52	1.23	3,207	0.72
Mean				2.05	1.42		
Minimum				1.38	1.18		
Maximum				3.56	1.89		
Standard Deviation				0.56	0.19		
Median				2.01	1.42		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1988 Sophomore Cohort - Never Attended Postsecondary Institution

Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SY3A	65.17	0.88	1.88	1.37	5,549	0.64
Taking Academic Courses, Feb '84	SY3C	1.17	0.19	1.74	1.32	5,549	0.14
Looking for Work, Feb '84	SY3I	17.06	0.70	1.90	1.38	5,549	0.51
Currently Married	SY57	20.65	0.76	1.97	1.40	5,536	0.54
Have One or More Children	SY66A	21.22	0.95	2.65	1.63	4,907	0.58
Expect To Have 3 or More Children	SY65	27.77	0.74	1.44	1.20	5,284	0.62
Have Served on Military Active Duty	SY44	10.83	0.60	2.05	1.43	5,541	0.42
If in PSE '82-'84: Earned No Degree	SY18J-20J	87.81	0.48	1.16	1.08	5,362	0.45
If in PSE '82-'84: Earned Vocational Degree	SY18J-20J	0.06	0.04	1.28	1.13	5,362	0.03
If in PSE '82-'84: Earned 4 Year College Degree	SY18J-20J	.00	.00	0.05	0.23	5,362	.00
Enrolled in Postsecondary Education, Oct '82	PSESOC82	0.00	0.00	n/a	n/a	5,558	0.00
Enrolled in Postsecondary Education, Oct '83	PSESOC83	0.00	0.00	n/a	n/a	5,558	0.00
If Employed: In Clerical Occupation, Oct '83	SY47A-50A	20.31	1.76	2.32	1.52	1,215	1.15
Employed, Oct '83	JOBSOC83	70.11	0.96	2.39	1.55	5,408	0.62
Have Used Pocket Calculator	SY9A2-A4	83.94	0.78	2.37	1.54	5,324	0.50
Have Used Computer Terminal	SY9B2-B4	26.79	1.01	2.58	1.61	5,009	0.63
Have Used Mainframe Computer	SY9E2-E4	12.99	0.62	1.67	1.29	4,923	0.48
Have Used Video Tape Recorder	SY9F2-F4	47.03	0.89	1.58	1.26	5,026	0.70
Have Used Audio Cassette Deck	SY9H2-H4	81.97	0.70	1.70	1.30	5,196	0.53
Have Used Word Processor	SY9I2-I4	4.29	0.39	1.92	1.39	5,515	0.28
Currently Registered To Vote	SY70	44.98	1.02	2.25	1.50	5,404	0.68
Have Voted in Election within Last Two Years	SY71	24.98	0.80	1.84	1.36	5,372	0.59
Being Successful in Job Very Important	SY72A	80.95	0.83	2.37	1.54	5,364	0.54
Marrying the Right Person Very Important	SY72B	87.35	0.68	2.26	1.50	5,366	0.45
Having Lots of Money Very Important	SY72C	31.18	0.93	2.16	1.47	5,365	0.63
Being a Community Leader Very Important	SY72F	9.49	0.56	1.97	1.40	5,326	0.40
Better Opportunities for Children Very Important	SY72G	80.24	0.66	1.48	1.22	5,337	0.55
Correcting Inequalities Very Important	SY72J	13.77	0.80	2.87	1.69	5,320	0.47
Having Children Very Important	SY72K	49.30	1.00	2.12	1.46	5,348	0.68
Having Leisure Time Very Important	SY72L	67.46	1.08	2.87	1.70	5,377	0.64
Mean				1.96	1.37		
Minimum				0.05	0.23		
Maximum				2.87	1.70		
Standard Deviation				0.57	0.27		
Median				1.97	1.40		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Sophomore Cohort - Continuous Enrollment in Postsecondary Institutions
Weight=FU2WT

Survey Item (or Composite Variable)	Item	Estimate	SE	DEFF	DEFT	N	SE-SRS
	Number						
Working Full Time, Feb '84	SY3A	44.98	1.08	2.42	1.56	5,144	0.69
Taking Academic Courses, Feb '84	SY3C	87.32	0.72	2.39	1.55	5,144	0.46
Looking for Work, Feb '84	SY3I	0.28	0.11	2.00	1.42	5,144	0.07
Currently Married	SY57	1.81	0.23	1.55	1.25	5,142	0.19
Have One or More Children	SY66A	0.96	0.19	1.72	1.31	4,738	0.14
Expect To Have 3 or More Children	SY65	40.93	1.08	2.39	1.55	4,949	0.70
Have Served on Military Active Duty	SY44	1.02	0.17	1.51	1.23	5,144	0.14
If in PSE '82-'84: Earned No Degree	SY18J-20J	0.00	0.00	n/a	n/a	808	0.00
If in PSE '82-'84: Earned Vocational Degree	SY18J-20J	7.01	1.07	1.41	1.19	808	0.90
If in PSE '82-'84: Earned 4 Year College Degree	SY18J-20J	13.83	1.89	2.43	1.56	808	1.21
Enrolled in Postsecondary Education, Oct '82	PSESOC82	100.00	0.00	n/a	n/a	5,145	0.00
Enrolled in Postsecondary Education, Oct '83	PSESOC83	100.00	0.00	n/a	n/a	5,145	0.00
If Employed: In Clerical Occupation, Oct '83	SY47A-50A	28.49	3.24	1.55	1.24	301	2.60
Employed, Oct '83	JOBSOC83	59.93	0.91	1.75	1.32	5,066	0.69
Have Used Pocket Calculator	SY9A2-A4	98.15	0.23	1.47	1.21	5,071	0.19
Have Used Computer Terminal	SY9B2-B4	72.10	0.97	2.31	1.52	4,964	0.64
Have Used Mainframe Computer	SY9E2-E4	35.99	1.08	2.41	1.55	4,771	0.69
Have Used Video Tape Recorder	SY9F2-F4	61.81	1.03	2.19	1.48	4,884	0.70
Have Used Audio Cassette Deck	SY9H2-H4	95.13	0.48	2.50	1.58	5,000	0.30
Have Used Word Processor	SY9I2-I4	15.08	0.86	2.83	1.68	4,950	0.51
Currently Registered To Vote	SY70	64.66	1.06	2.50	1.58	5,054	0.67
Have Voted in Election within Last Two Years	SY71	43.11	1.09	2.42	1.56	5,038	0.70
Being Successful in Job Very Important	SY72A	90.46	0.64	2.37	1.54	5,053	0.41
Marrying the Right Person Very Important	SY72B	87.70	0.56	1.47	1.21	5,048	0.46
Having Lots of Money Very Important	SY72C	27.17	0.89	2.01	1.42	5,048	0.63
Being a Community Leader Very Important	SY72F	11.43	0.66	2.17	1.47	5,038	0.45
Better Opportunities for Children Very Important	SY72G	60.62	0.85	1.53	1.24	5,020	0.69
Correcting Inequalities Very Important	SY72J	14.48	0.62	1.55	1.24	5,048	0.50
Having Children Very Important	SY72K	49.87	1.07	2.29	1.51	5,041	0.70
Having Leisure Time Very Important	SY72L	77.94	0.84	2.09	1.45	5,052	0.58
Mean				2.05	1.42		
Minimum				1.41	1.19		
Maximum				2.83	1.68		
Standard Deviation				0.42	0.15		
Median				2.17	1.47		

High School and Beyond Second Follow-Up Estimated Percentages,
Standard Errors and Design Effects

1980 Sophomore Cohort - Non-continuous Enrollment in Postsecondary Institutions
Weight=FU2WT

Survey Item (or Composite Variable)	Item Number	Estimate	SE	DEFF	DEFT	N	SE-SRS
Working Full Time, Feb '84	SY3A	65.46	1.39	2.48	1.57	2,907	0.88
Taking Academic Courses, Feb '84	SY3C	20.80	1.12	2.22	1.49	2,907	0.75
Looking for Work, Feb '84	SY3I	9.32	0.78	2.10	1.45	2,907	0.54
Currently Married	SY57	10.41	0.87	2.34	1.53	2,906	0.57
Have One or More Children	SY66A	8.84	0.80	2.10	1.45	2,629	0.55
Expect To Have 3 or More Children	SY65	36.74	1.52	2.75	1.66	2,773	0.92
Have Served on Military Active Duty	SY44	4.22	0.53	2.02	1.42	2,906	0.37
If in PSE '82-'84: Earned No Degree	SY18J-20J	0.00	0.00	n/a	n/a	703	0.00
If in PSE '82-'84: Earned Vocational Degree	SY18J-20J	3.44	0.99	2.06	1.44	703	0.69
If in PSE '82-'84: Earned 4 Year College Degree	SY18J-20J	0.76	0.40	1.50	1.22	703	0.33
Enrolled in Postsecondary Education, Oct '82	PSESOC82	56.75	1.19	1.65	1.29	2,861	0.93
Enrolled in Postsecondary Education, Oct '83	PSESOC83	47.66	1.39	2.20	1.48	2,844	0.94
If Employed: In Clerical Occupation, Oct '83	SY47A-50A	32.72	2.52	1.75	1.32	604	1.91
Employed, Oct '83	JOBSOC83	69.25	1.39	2.61	1.62	2,863	0.86
Have Used Pocket Calculator	SY9A2-A4	93.63	0.59	1.63	1.28	2,831	0.46
Have Used Computer Terminal	SY9B2-B4	51.35	1.31	1.88	1.37	2,729	0.96
Have Used Mainframe Computer	SY9E2-E4	25.37	1.35	2.55	1.60	2,660	0.84
Have Used Video Tape Recorder	SY9F2-F4	55.71	1.37	2.07	1.44	2,714	0.95
Have Used Audio Cassette Deck	SY9H2-H4	90.91	0.60	1.21	1.10	2,770	0.55
Have Used Word Processor	SY9I2-I4	10.42	0.64	1.23	1.11	2,782	0.58
Currently Registered To Vote	SY70	55.59	1.25	1.79	1.34	2,836	0.93
Have Voted in Election within Last Two Years	SY71	36.06	1.37	2.29	1.51	2,820	0.90
Being Successful in Job Very Important	SY72A	86.62	0.82	1.61	1.27	2,817	0.54
Marrying the Right Person Very Important	SY72B	88.52	1.01	2.00	1.67	2,814	0.60
Having Lots of Money Very Important	SY72C	29.05	1.22	2.02	1.42	2,813	0.86
Being a Community Leader Very Important	SY72F	8.97	0.65	1.47	1.21	2,809	0.54
Better Opportunities for Children Very Important	SY72G	75.10	1.06	1.69	1.30	2,796	0.82
Correcting Inequalities Very Important	SY72J	14.05	1.25	3.63	1.91	2,802	0.66
Having Children Very Important	SY72K	40.06	1.31	1.92	1.39	2,810	0.94
Having Leisure Time Very Important	SY72L	73.42	1.14	1.88	1.37	2,818	0.83
Mean				2.05	1.42		
Minimum				1.21	1.10		
Maximum				3.63	1.91		
Standard Deviation				0.50	0.17		
Median				2.02	1.42		

APPENDIX B:

Senior Weights and Nonresponse Adjustments

CELL2: Cell used for the computation of nonresponse adjustments for the following weights:

FU2WT, Weight adjusted for second follow-up participation

CELL2 consists of five characters:

1st Char: Base year participation
0. Nonparticipant
1. Participant

2nd Char: Grouped school sample type
1. Regular and alternative public (0,1=1)
3. Hispanic public (2,3=3)
7. Catholic schools (5,6,7=7)
9. Private schools (8,9=9)

3rd Char: Sex
1. Male
2. Female

4th Char: Grouped FU1 composite race
1. Hispanic
2. Black
3. Other

5th Char: Base year test quartile
0. No data available
1. Lowest quartile
2. Second quartile
3. Third quartile
4. Highest quartile

Note: For base year nonparticipants, the 3rd, 4th, and 5th columns of the weighting cell are collapsed into one group. (i.e., There is no distinction between sex, race, or test quartiles.)

CELL3 Cell used for the computation of nonresponse adjustments of the following weights:

PANELWT3 Weight adjusted for participation in all three waves

TESTWT2 Weight adjusted for participation in both the base year test and the second follow-up surveys

CELL3 consists of three characters. They are constructed in a manner identical to the middle three characters of CELL2 above.

Note: For the computation of TESTWT2 only, Race (the 3rd character of CELL3) was collapsed into one group for respondents from private schools only.

SENIORS -- USR FU2 WTS
 SUMS OF WTS, SUMS OF CASES, AND NONRESP ADJ FOR EACH CELL
 TEST/FU2 PARTICIPATION

11:15 FRIDAY, DECEMBER 28, 1984

CELL3	N OF CASES ALL	SUM OF WTS FOR ALL	SUM OF WTS FOR TESTS + FU2	TESTS + FU2	
				NONRESP ADJUSTMT	
111	541	61259	946999999800	1	552991887200
112	1197	142457	0299999998500	1	621120571787
113	2611	1095502	7889999970000	1	492236634542
121	502	59180	9069999999800	1	558309805884
122	1479	168661	9079999994000	1	457660270682
123	2759	1116336	8439999970000	1	362487376308
311	520	21715	002999999800	1	586427212991
312	56	3247	1340000000000	1	527087160299
313	154	18552	5469999999000	1	571312684122
321	618	22788	2459999999800	1	344691729149
322	79	5174	5269999999900	1	693842752505
323	145	17180	7289999999900	1	384210804910
711	133	6294	1709999999980	1	360800329489
712	90	3664	3770000000000	1	473295250318
713	208	81248	1909999999800	1	528411181673
721	183	6800	6909999999970	1	437096438814
722	107	6616	8019999999980	1	365253757655
723	295	95714	3329999999600	1	199917292070
91	165	50024	0639999999900	1	757531386803
92	153	54292	7400000000000	1	570286802502
=====		11995	2109052	0099999950000	
=====		3039713	2589999920000		

VARIABLE=1S1W12

SENIORS PARTICIPANTS IN TEST AND FUZ
UNIVARIATE

11:05 FRIDAY, DECEMBER 28, 1984

9

MOMENTS

N	9458	SUM WGT'S	9458
MEAN	321.391	SUM	3039713
STD DEV	326.464	VARIANCE	106579
SKEWNESS	0.954299	KURTOSIS	-0.896439
USS	1984852695	CSS	1007917117
CV	101.579	STD MEAN	3.35688
T:MEAN=0	95.7408	PROB>T	0.0001
SGN RANK	22365806	PROB> S	0.0001
NUM	9458		

QUANTILES(DEF=4)

100% MAX	1001.29
75% Q3	810.165
50% MED	156
25% Q1	114.674
0% MIN	1.92274

EXTREMES

99%	963.014	LOWEST	1.92274	HIGHEST	1001.29
95%	887.376		1.92274		1001.29
90%	887.376		1.92274		1001.29
10%	35.0412		1.92274		1001.29
5%	21.7937		1.92274		1001.29
1%	7.13087		1.92274		1001.29

RANGE	999.367
Q3 Q1	695.491
MODE	810.165

VARIABLE=FUZWI

SENIORS - FUZ PARTICIPANTS

16:55 THURSDAY, DECEMBER 27, 1984 22

MOMENTS

N	10925
MEAN	278.235
STD DEV	296.822
SKEWNESS	1.2419
USS	1808190847
CV	106.68
I MEAN=0	97.9775
SGN RANK	29841638
NUM	10925

SUM WGT'S	10925
SUM	3039713
VARIANCE	88103
KURTOSIS	0.681301
CSS	9622437374
STD MEAN	2.83978
PROB> T	0.0001
PROB> S	0.0001

100% MAX	1621.26
75% Q3	614.331
50% MED	121.147
25% Q1	90.215
OX MIN	1.09848
RANGE	1620.16
Q3-Q1	524.116
MODE	1124.63

QUANTILES(DEF=4)

99%	1124.63
95%	680.056
90%	658.003
10%	29.6773
5%	17.7952
1%	5.86554

EXTREMES

LOWEST	1.09848	HIGHEST	1621.26
	1.09848		1621.26
	1.22532		1621.26
	1.23289		1621.26
	1.23289		1621.26

VARIABLE=PNELWT3

SENIORS - PARTICIPANTS IN ALL 3 WAVES

16:55 THURSDAY, DECEMBER 27, 1984 23

MOMENTS

N	10158
MEAN	299.243
STD DEV	301.843
SKEWNESS	0.912129
USS	1835008122
CV	100.869
I MEAN=0	99.9189
SGN RANK	25798781
NUM	10158

SUM WGT'S	10158
SUM	3039713
VARIANCE	91109
KURTOSIS	-1.00472
CSS	925394350
STD MEAN	2.99486
PROB> T	0.0001
PROB> S	0.0001

100% MAX	925.615
75% Q3	749.603
50% MED	141.708
25% Q1	108.263
OX MIN	1.18497
RANGE	924.43
Q3-Q1	641.34
MODE	749.603

QUANTILES(DEF=4)

99%	834.355
95%	807.998
90%	807.998
10%	35.9888
5%	21.399
1%	6.89352

EXTREMES

LOWEST	1.18497	HIGHEST	919.192
	1.18497		919.192
	1.23289		919.192
	1.23289		919.192
	1.45684		925.615

UNIVARIATE

PANEL PARTICIPATION

CELL	N OF CASES	SUM OF WTS FOR ALL	NUMS OF CASES	SUM OF WTS FOR 3 WAVES	NBRRESP ADJ		
111	541	61259	615999999800	45177	409999999800	1	403740753354
112	1197	142457	639999999600	98242	93299997900	1	450054834987
113	2611	1095502	78899970000	806202	609999981000	1	358813019623
121	502	59180	90699999800	42945	11899999800	1	378058982675
122	1479	168661	90799994000	132174	21099995000	1	276057611571
123	2759	1116336	84399970000	885533	46399979000	1	260637671396
311	520	21715	00299999800	14848	49199999900	1	462438273193
312	56	3247	13400000000	2502	39400000000	1	297611007699
313	154	18552	54699999900	11791	43900000000	1	573391254452
321	618	22788	24599999800	19227	18099999900	1	185209937952
322	79	5174	52699999900	3724	42400000000	1	389349601412
323	145	17180	72899999900	12453	73900000000	1	379563920522
711	133	6294	17099999980	5249	25099999990	1	199060780290
712	90	3664	37700000000	2627	66600000000	1	394536824695
713	208	81248	19099999800	61355	70599999900	1	324215729830
721	183	6800	69099999970	4895	18399999990	1	389261568104
722	107	6616	80199999980	5028	79499999990	1	315782806816
723	295	95714	33299999600	81566	78899999700	1	173447357355
911	19	2219	52800000000	1959	48000000000	1	126961431444
912	24	1347	64600000000	1244	18600000000	1	083154769464
913	122	46456	89000000000	30194	79800000000	1	538572637578
921	12	1296	64100000000	912	56800000000	1	420873841730
922	16	2061	38700000000	1474	33100000000	1	398184668165
923	125	50934	70900000000	38346	46000000000	1	3282726690991
*****	11995	3039713	258999920000	2310288	629999950000		

CELL 2	N OF CASES	SUM OF WTS FOR ALL	SUM OF WTS FOR FU2 PART	FU2 NONRESP ADJUSTM
01 0	442	399244.455999999000	320660.139999999000	1 245070422535'
03 0	16	14699.648000000000	10106.008000000000	1 454545454545
07 0	19	20094.001000000000	17978.843000000000	1 117647058824
09 0	18	19455.120000000000	12970.080000000000	1 500000000000
1110	73	8499.524999999980	6631.773999999990	1 281636708368
1111	239	23826.947999999900	20736.760999999900	1 149019752892
1112	112	11626.704000000000	10318.511000000000	1 126781179959
1113	74	7962.400999999980	7438.158999999980	1 070480074438
1114	33	3311.358000000000	2884.516000000000	1 147976991634
1120	200	22377.598999999900	17833.666999999900	1 1254795157945
1121	534	53839.656999999800	47150.283999999800	1 141873440253
1122	236	24653.433999999900	22066.956999999900	1 117210406491
1123	145	14735.482000000000	12475.929000000000	1 181113005693
1124	60	6979.571999999990	6182.859999999990	1 128858165962
1130	232	118690.053999999000	104896.379999999000	1 131498093643
1131	345	139573.451999998000	126129.283999998000	1 106590377537
1132	480	200797.797999997000	180040.296999997000	1 115293638957
1133	561	205928.880999996000	189314.887999997000	1 087758512685
1134	798	254375.343999995000	238506.622999995000	1 066533670220
1210	74	7596.951999999980	6406.018999999990	1 185908440172
1211	222	22421.849999999000	19801.705999999000	1 132319104223
1212	100	10127.167000000000	8795.027999999980	1 151465009649
1213	60	5783.665999999990	5517.623999999990	1 048216768667
1214	35	4218.592000000000	3863.268000000000	1 091974980768
1220	203	21875.679999999000	19503.500999999000	1 121628368158
1221	766	77913.736999999000	72091.608999999400	1 080760133957
1222	295	30160.438999999000	28477.493999999000	1 059097370014
1223	136	11789.674000000000	10750.554000000000	1 096657344356
1224	55	5243.945999999990	4387.625000000000	1 195167317170
1230	180	93899.190999999400	87652.178999999500	1 071270470070
1231	448	174069.453999997000	158535.879999998000	1 097981441173
1232	580	231412.791999996000	219424.386999996000	1 054635700087
1233	668	231084.024999995000	223670.238999995000	1 031416054804
1234	702	222379.873999995000	217706.878999996000	1 021464618029
13110	57	2285.654000000000	2199.701000000000	1 039074856083
13111	203	7296.528999999970	6595.196999999970	1 106339810623
13112	92	3292.706000000000	2927.927000000000	1 124586097946
13113	106	2887.846000000000	2833.696000000000	1 019109318713
13114	57	1358.628000000000	1331.172000000000	1 020625433828
13120	11	851.581000000000	600.511000000000	1 418093923342
13121	24	1636.804000000000	1400.345000000000	1 168857674359
13122	11	529.275000000000	511.220000000000	1 035317475842
13123	6	160.865000000000	146.184000000000	1 100428227439
13124	4	68.609000000000	68.609000000000	1 000000000000
13130	8	185.854000000000	140.014000000000	1 327395831845
13131	41	4267.583000000000	3058.566000000000	1 395288837972
13132	29	4042.285000000000	3388.894000000000	1 192803610854
13133	38	3103.280000000000	3021.090000000000	1 027205412616
13134	33	2359.905000000000	2338.487000000000	1 009158913434
13210	75	3038.205000000000	2834.385000000000	1 071909779370
13211	287	10430.871999999900	9679.561999999950	1 077618181484
13212	124	4250.471999999990	4085.587000000000	1 040357725830

CELL 2	N OF CASES ALL	SUM OF WTS FOR ALL	SUM OF WTS FOR F2 PART	F22	F22 ADJUSTM		
13211	92	2311	9500000000000	2294	5630000000000	1	007577477716
13214	38	919	2909999999999	887	1059999999999	1	036280895406
13220	10	836	9000000000000	753	2100000000000	1	111111111111
13221	44	2465	6180000000000	2185	3130000000000	1	128267666920
13222	14	709	3810000000000	625	6910000000000	1	133756119235
13223	6	159	4150000000000	159	4150000000000	1	000000000000
13224	4	84	4850000000000	84	4850000000000	1	000000000000
13230	8	188	6460000000000	151	2270000000000	1	217435973735
13231	35	3576	2030000000000	2956	8480000000000	1	209464605553
13232	31	4050	5450000000000	4014	3540000000000	1	009015398243
13233	35	3610	6780000000000	3026	4670000000000	1	193033989797
13234	33	2998	4730000000000	2414	2620000000000	1	2419849264451
17110	8	1020	5230000000000	1020	5230000000000	1	000000000000
17111	9	569	4560000000000	293	4990000000000	1	940231482901
17112	29	1711	5570000000000	1646	7730000000000	1	039339969747
17113	42	1419	1570000000000	1246	6140000000000	1	138409323175
17114	45	1573	4780000000000	1438	4590000000000	1	0938653641578
17120	3	446	8140000000000	446	8140000000000	1	000000000000
17121	3	270	7800000000000	180	5200000000000	1	500000000000
17122	18	1261	7700000000000	912	2700000000000	1	383110263409
17123	10	699	6530000000000	639	9940000000000	1	093218061419
17124	26	985	3600000000000	754	4140000000000	1	306126344421
17130	22	11358	9860000000000	8208	6110000000000	1	383789047867
17131	13	5188	4660000000000	4558	3910000000000	1	138223114252
17132	34	14175	7470000000000	12285	5220000000000	1	153857931311
17133	49	17230	3080000000000	15703	3080000000000	1	097240657828
17134	80	22718	8940000000000	20611	3740000000000	1	102250340031
17210	4	379	9320000000000	275	1790000000000	1	380672216993
17211	28	1424	2380000000000	1096	4400000000000	1	1298965743680
17212	37	1483	9130000000000	1338	6390000000000	1	108523657237
17213	72	1910	6170000000000	1810	5350000000000	1	1055277583698
17214	41	544	4120000000000	486	6300000000000	1	118739083082
17220	5	304	0260000000000	207	8440000000000	1	462760531937
17221	20	1275	9160000000000	1267	8110000000000	1	00663929908722
17222	38	2159	3170000000000	1783	1920000000000	1	210927931485
17223	28	733	8420000000000	709	4480000000000	1	034384479201
17224	15	1086	1220000000000	1086	1220000000000	1	000000000000
17230	8	2803	7970000000000	2803	7970000000000	1	000000000000
17231	28	10670	3290000000000	9933	6310000000000	1	074162005816
17232	64	19435	0900000000000	18006	6930000000000	1	079325898278
17233	74	23569	2830000000000	21043	1240000000000	1	1200467666820
17234	114	31832	7810000000000	30783	9940000000000	1	034069230913
19110	19	2219	5280000000000	1969	4800000000000	1	126961431444
19120	24	1317	6460000000000	1342	1470000000000	1	004097166704
19130	12	5654	4780000000000	4390	0260000000000	1	288028462474
19131	4	1577	3550000000000	1577	3550000000000	1	000000000000
19132	11	4698	0600000000000	4698	0600000000000	1	000000000000
19133	16	5893	7750000000000	5324	0610000000000	1	107007414077
19134	69	17824	8220000000000	15914	4380000000000	1	120040933899
19210	12	1296	6440000000000	1293	6810000000000	1	002290363699
19220	16	2061	3870000000000	1474	3310000000000	1	398184668165
19230	12	6391	8780000000000	5832	1640000000000	1	097852619748

CELL2	N OF CASES ALL	SUM OF WIS FOR ALL	SUM OF WIS FOR FU2 PART	FU2 NONRESP ADJUST
19231	11	5412.9800000000000	4661.4280000000000	1.161227846917
19232	14	6321.1720000000000	6193.1280000000000	1.020675174161
19233	27	8743.2430000000000	8615.1990000000000	1.014862570209
19234	53	15418.7160000000000	14279.2880000000000	1.079795855368
	11995	3039713.2589999500000	2747754.9919999600000	

VARIABLE=RAWWT RAW WEIGHT MOMENTS UNIVARIATE SENIORS - ALL CASES 16:55 THURSDAY, DECEMBER 27, 1984 19

N	MEAN	STD DEV	SKENWNESS	USS	CV	T: MEAN=0	SGN RANK	NUM	SUM WGT	SUM	VARIANCE	KURTOSIS	CSS	STD MEAN	PROB>T	PROB> S	100% MAX	75% Q3	50% MED	25% Q1	0% MIN	RANGE Q3-Q1	MODE	QUANTILES(DEF=4)	99%	95%	90%	10%	5%	1%	HIGHEST	LOWEST	HIGHEST	LOWEST
11995	253.415	263.622	1.01828	1603849235	104.028	105.281	35973005	11995	3039713	69496.4	-0.395701	833540215	2.40703	0.0001	0.0001	1079.75	510.932	594.622	109.279	83.69	1.094	594.622	594.622	594.622	27.087	16.09	5.485	1080.84	1.094	1.094	1080.84	1080.84	1080.84	1080.84

EXTREMES

VARIABLE=FU2WT

MOMENTS

N	10925	SUM WGT'S	10925
MEAN	278.235	SUM	3039713
STD DEV	296.822	VARIANCE	88103
SKENNESS	1.2419	KURTOSIS	0.681301
USS	1808190847	CSS	962437374
CV	106.68	STD MEAN	2.83978
T:MEAN=0	97.9775	PROB> T	0.0001
SGN RANK	29841638	PROB> S	0.0001
NUM	10925		

SENIORS - FU2 PARTICIPANTS
UNIVARIATE

16:55 THURSDAY, DECEMBER 27, 1984 22

QUANTILES(DEF=4)

100% MAX	1621.26	99%	1124.63	LOWEST	1621.26
75% Q3	614.331	95%	680.056	1.09848	1621.26
50% MED	121.147	90%	658.003	1.09848	1621.26
25% Q1	90.215	10%	29.6773	1.22532	1621.26
0% MIN	1.09848	5%	17.7952	1.23289	1621.26
		1%	5.86554	1.23289	1621.26

EXTREMES

VARIABLE=PAANEL.M13

MOMENTS

N	10158	SUM WGT'S	10158
MEAN	299.243	SUM	3039713
STD DEV	301.843	VARIANCE	91109
SKENNESS	0.912129	KURTOSIS	-1.00472
USS	1835008122	CSS	925394350
CV	100.869	STD MEAN	2.99486
T:MEAN=0	99.9189	PROB> T	0.0001
SGN RANK	25798781	PROB> S	0.0001
NUM	10158		

SENIORS - PARTICIPANTS IN ALL 3 WAVES
UNIVARIATE

16:55 THURSDAY, DECEMBER 27, 1984 23

QUANTILES(DEF=4)

100% MAX	925.615	99%	834.355	LOWEST	919.192
75% Q3	749.603	95%	807.998	1.18497	919.192
50% MED	141.708	90%	807.998	1.18497	919.192
25% Q1	108.263	10%	35.9888	1.23289	919.192
0% MIN	1.18497	5%	21.399	1.23289	919.192
		1%	6.89352	1.45684	925.615

EXTREMES

LIST OF SENIOR WEIGHTS WITH
VALUES GREATER THAN 1000 IN
DECREASING ORDER BY WEIGHT

FU2 WEIGHTS GREATER THAN 1,000

Cell 2	FU2WT	RAWWT	NRADFU2	FREQ
09..0	1621.26	1080.84	1.50000	12
03..0	1336.33	918.73	1.45455	11
07..0	1182.00	1057.58	1.11765	17
01..0	1124.63	903.27	1.24507	210

APPENDIX C:

Sophomore Weights and Nonresponse Adjustments

CELL2: Cell used for the computation of nonresponse adjustments for the following weights:

FU1WT Weight adjusted for first follow-up participation
FU2WT Weight adjusted for second follow-up participation
TRWT2 Weight adjusted for participation in the second follow-up plus H.S. transcripts surveys

CELL2 consists of five characters:

1st Char: Student type
1. Nondropout
2. Dropout
2nd Char: Grouped school sample type
1. Regular and alternative public (0,1=1)
3. Hispanic public (2,3=3)
7. Catholic schools (5,6,7=7)
9. Private schools (8,9=9)
3rd Char: Sex
1. Male
2. Female
4th Char: Grouped FU1 composite race
1. Hispanic
2. Black
3. Other
5th Char: Base year test quartile
0. No data available
1. Lowest quartile
2. 2nd quartile
3. Third quartile
4. Highest quartile

Note: For dropouts, the 2nd character of CELL2 is collapsed into one group. Also the 5th character (test quartile) is collapsed into three groups (0. No data 1. Bottom half 3. Top half)

CELL3 Cell used for the computation of nonresponse adjustments of the following weights:

BYWT Weight adjusted for base year participation
PANELWT3 Weight adjusted for participation in all three waves
TESTWT2 Weight adjusted for participation in both tests as well as the second follow-up survey

CELL3 consists of four characters. They are constructed in an identical manner as the first four characters of CELL2 above.

SUMS OF WTS, NUMS OF CASES, AND NONRESP ADJ FOR EACH CELL
 PANEL PARTICIPATION, TEST/FU2 PARTICIPN, BASE YR PARTICIPN

CELL3	N OF CASES	SUM OF WTS FOR ALL	SUM OF WTS FOR ALL	SUM OF WTS FOR 3 WAVES	SUM OF WTS FOR BASE YR	PANEL NONRESP ADJUSTM	
						NONRESP	ADJUSTM
1111	631	147470	518999998000	113583	453999998000	1	298345082903
1112	532	164336	882999998000	120449	190999999000	1	364366847429
1113	2926	1090410	919999980000	870137	392999990000	1	253147984183
1121	459	109030	922999999000	88228	347999999500	1	235781077982
1122	618	199414	682999998000	164655	963999998000	1	211099058641
1123	3009	1123730	776999970000	963210	797999989000	1	166650933870
1311	391	27007	652999999000	21044	774999999000	1	283342444859
1312	33	3647	011000000000	3069	256000000000	1	188239430012
1313	114	16472	884000000000	10897	882000000000	1	511567477057
1321	373	28682	711999999800	22588	789999999900	1	269776380231
1322	36	7254	677000000000	6356	827000000000	1	141241849117
1323	113	15691	856000000000	12859	242000000000	1	220278458093
1711	200	7300	406999999960	6884	501999999970	1	1060411777061
1712	186	5530	302999999970	4696	375999999990	1	177568193007
1713	779	87596	353999998400	79366	427999998900	1	103695305526
1721	326	10840	589999999900	9867	326999999940	1	098634919062
1722	229	7633	142999999960	6693	879999999980	1	102339784879
1723	920	103543	626999997000	93930	771999998100	1	1262030070697
1911	23	2535	585000000000	2009	132000000000	1	155832270156
1912	20	1269	246000000000	1098	123000000000	1	1291247717671
1913	157	51216	739000000000	39664	534000000000	1	1291247717671
1921	14	3612	222000000000	3612	222000000000	1	000000000000
1922	6	959	629000000000	959	629000000000	1	000000000000

CELL3

CELL3	SUM OF WTS FOR TESTS + FU2	TESTS + FU2		SUM OF WTS FOR BASE YR	BASE YR NONRESP ADJUSTM				
		NONRESP	ADJUSTM		NONRESP	ADJUSTM			
1111	95147	312999999300	1	549917852121	1	126117	303999998000	1	169312333223
1112	102827	021999999000	1	598187711786	1	143783	210999999000	1	142949040135
1113	764097	412999991000	1	427057468653	1	968460	208999989000	1	125922273178
1121	75912	456999999700	1	436271822950	1	97205	422999999200	1	121654735251
1122	143595	719999990000	1	388723027399	1	176602	936999998000	1	129166864659
1123	858122	650999991000	1	309522334238	1	1019276	356999999000	1	102478998245
1311	16341	990999999000	1	652653767830	1	23062	662999999000	1	171055267989
1312	2959	576000000000	1	232274825853	1	3163	988000000000	1	152662715535
1313	10236	768000000000	1	609187978081	1	13824	181000000000	1	191599270872
1321	18657	685999999900	1	537313469634	1	24700	845999999900	1	161203628410
1322	5319	502000000000	1	363788753158	1	6381	927000000000	1	136753366185
1323	11827	445000000000	1	326732527608	1	14314	722000000000	1	096204033861
1711	6683	147999999800	1	092360516332	1	7255	728999999960	1	006157616967
1712	4605	994999999990	1	200674989877	1	5256	227999999970	1	052142905521
1713	72159	599999999200	1	213925160339	1	84398	594999998600	1	037888770542
1721	9343	452999999940	1	160233802214	1	10589	576999999900	1	023703779669
1722	6315	587999999990	1	208619529963	1	7092	536999999970	1	076221808924
1723	90516	206999998300	1	143923618010	1	100096	297999999700	1	034140124849
1911	618	136000000000	1	101985647171	1	2154	794000000000	1	176718052863
1912	709	208000000000	1	789666783329	1	1103	101000000000	1	150616308026
1913	31914	136000000000	1	604829251840	1	45122	573000000000	1	135058034035
1921	2154	419000000000	1	676657140510	1	3612	222000000000	1	000000000000
1922	298	395000000000	1	215968766233	1	959	629000000000	1	000000000000

SOPHOMORES ---HSB FU2 WTS
 SUMS OF WTS, NUMS OF CASES, AND NONRESP ADJ FOR EACH CELL
 PANEL PARTICIPATION, TEST/FU2 PARTICIPN, BASE YR PARTICIPN

CELL3	N OF CASES ALL	SUM OF WTS FOR ALL	SUM OF WTS FOR 3 WAVES	PANEL NONRESP ADJUSTM
1923	146	53234	40817	1 304205222986
2 11	283	41203	19569	2 105464074817
2 12	232	43970	20055	2 192425981205
2 13	840	190095	102205	1 859925230436
2 21	281	33800	19182	1 762075200475
2 22	196	34892	18341	1 902379151381
2 23	752	168541	98664	1 708236170675
=====	14825	3780927	2964701	

CELL3	SUM OF WTS FOR TSTS + FU2	SUM OF WTS FOR NONRESP ADJUSTM	SUM OF WTS FOR BASE YR	BASE YR NONRESP ADJUSTM
1923	33636	1 582639358576	45889	1 160065640026
2 11	14630	2 816251596740	23759	1 734151807613
2 12	14087	3 121323971508	25996	1 691403593567
2 13	79782	2 382664282604	130316	1 458719365561
2 21	14396	2 347762446894	22428	1 507029178488
2 22	13953	2 500573888997	22005	1 585642467847
2 23	77614	2 171519306282	117628	1 432824592303
=====	2578466	0039999970000	3272560	031999960000

SOPHOMORES -- HSJ FU2 WTS
 SUMS OF WTS, NUMS OF CASES, AND NONRESP ADJ FOR EACH CELL
 FU2 PARTICIPATION, FU1 PARTICIPN, TRANSCRIPT1/FU2 PARTICIPN

CELL2	N OF CASES ALL	SUM OF WTS FOR ALL		SUM OF WTS FOR FU2 PART		FU2 NONRESP ADJUSTM
		FU1	FU2	FU1	FU2	
11110	137	35257	7440000000000	30683	3620000000000	1.149083467451
11111	185	45673	1999999999900	-42965	8209999999900	1.063012388382
11112	133	35609	0580000000000	32037	0380000000000	1.11496574683
11113	92	17521	6520000000000	15524	5670000000000	1.128640302818
11114	84	13408	8650000000000	12621	4900000000000	1.062383680532
11120	103	37419	9400000000000	32263	6610000000000	1.159816922202
11121	167	66996	5480000000000	60290	0910000000000	1.111236471678
11122	126	37348	4800000000000	31764	4450000000000	1.175795138243
11123	84	14284	4310000000000	11392	6720000000000	1.253826231458
11124	52	8287	4839999999900	6697	3629999999900	1.236839600007
11130	397	184617	0409999999000	149265	1439999999000	1.236839600007
11131	355	140753	2009999999000	132380	3309999999000	1.063248595443
11132	550	218039	2329999999000	199926	6209999999000	1.090596299329
11133	701	243754	8549999998000	230653	7619999998000	1.056799823625
11134	923	303246	5899999996000	290507	9969999970000	1.043849371210
11210	88	21195	6590000000000	17975	3370000000000	1.179152246214
11211	148	43625	4880000000000	38885	6330000000000	1.121892190877
11212	102	23835	3870000000000	23835	3870000000000	1.000000000000
11213	76	13632	7840000000000	13503	7160000000000	1.009557961675
11214	45	6741	6049999999900	6741	6049999999900	1.000000000000
11220	97	39812	1980000000000	36673	1410000000000	1.085595531618
11221	205	80767	5189999998000	77216	6529999999000	1.045985753876
11222	152	47692	4730000000000	45912	0630000000000	1.038778697442

CELL2	SUM OF WTS FOR FU1 PART		SUM OF WTS FOR TRN2 PART		TRN2 NONRESP ADJUSTM
	FU1	FU2	FU1	FU2	
11110	35257	7440000000000	1	0000000000000	1.218659640249
11111	45236	8249999999900	1	009616455073	1.203431333349
11112	34741	1420000000000	1	024982368167	1.183817042270
11113	16699	9610000000000	1	049203168798	1.140818187719
11114	13408	8650000000000	1	0000000000000	1.259034170507
11120	36113	1120000000000	1	036187077979	1.452650956375
11121	64079	2590000000000	1	045526259909	1.233077381746
11122	35166	6050000000000	1	062043947660	1.357357146066
11123	14019	5560000000000	1	018993251684	1.325262532580
11124	8287	4839999999900	1	0000000000000	1.448103875771
11130	152982	0479999999000	1	206788923364	1.351236434156
11131	126519	1519999999000	1	112505033300	1.214150412761
11132	208304	5119999999000	1	046733125973	1.194309321736
11133	237086	9419999998000	1	028124336768	1.153360609165
11134	289317	6869999997000	1	048143973306	1.116763197626
11210	20398	8260000000000	1	039062689196	1.264104374858
11211	40164	3330000000000	1	086174840747	1.217303129337
11212	22937	6890000000000	1	039136375072	1.095438765393
11213	13058	5930000000000	1	043970357297	1.089930309073
11214	6403	5489999999900	1	052791975200	1.057838371593
11220	38939	4480000000000	1	022413003903	1.411189108367
11221	76704	9459999999000	1	052963638094	1.116671197824
11222	45174	1760000000000	1	055746381837	1.090276425036

SOPHOMORES -- HSU FU2 WTS
 SUMS OF WTS, NUMS OF CASES, AND NONRESP ADJ FOR EACH CELL
 FU2 PARTICIPATION, FU1 PARTICIPN, TRANSCRIPT/FU2 PARTICPN

CELL2	N OF CASES ALL	SUM OF WTS FOR ALL	SUM OF WTS FOR FU2 PART	FU2 NONRESP ADJUSTM
11223	98	20771	1160000000000	1 013126625635
11224	66	10371	440000000000	1 009729206526
11230	340	15927	400999999000	1 158593243590
11231	374	147691	760999999000	1 053809381306
11232	589	223795	541999998000	1 043329069989
11233	761	275156	415999997000	1 026123162667
11234	945	318059	656999996000	1 018178774753
13110	87	7464	667999999980	1 092866609003
13111	94	7338	695999999990	1 116192565567
13112	70	6214	976999999990	1 031209680631
13113	87	4281	544000000000	1 015114054829
13114	53	1707	768000000000	1 152357965070
13120	7	592	703000000000	1 000000000000
13121	14	2193	005000000000	1 000000000000
13122	5	667	783000000000	1 165311638929
13123	3	83	373000000000	1 000000000000
13124	4	110	147000000000	1 000000000000
13130	11	3577	581000000000	2 616143157377
13131	22	3953	133000000000	1 027943628043
13132	23	3183	429000000000	1 173004631694
13133	30	2692	174000000000	1 208363200088
13134	28	3066	567000000000	1 000000000000
13210	53	7079	966000000000	1 092033576800

CELL2	SUM OF WTS FOR FU1 PART	FU1 NONRESP ADJUSTM	SUM OF WTS FOR TRN2 PART	TRN2 NONRESP ADJUSTM
11223	20771	1160000000000	17668	0460000000000
11224	10137	7100000000000	9824	0819999999980
11230	139537	8019999990000	120041	8300000000000
11231	140396	4189999990000	123585	0809999993000
11232	216900	5249999980000	197962	8949999990000
11233	268048	1169999980000	250873	3689999980000
11234	311870	1819999960000	289361	3219999970000
13110	7464	6679999999800	6232	1109999993990
13111	6866	0709999999990	5516	5739999999990
13112	6175	8219999999990	5796	4559999999990
13113	4020	0310000000000	3844	6590000000000
13114	1707	7680000000000	1233	0250000000000
13120	592	7030000000000	558	4740000000000
13121	2193	0050000000000	1257	9790000000000
13122	667	7830000000000	573	0510000000000
13123	83	3730000000000	83	3730000000000
13124	110	1470000000000	74	2590000000000
13130	1832	0810000000000	1367	5020000000000
13131	3435	7820000000000	2921	2390000000000
13132	2199	2880000000000	2191	9890000000000
13133	2255	7990000000000	1687	7870000000000
13134	3066	5670000000000	2919	1540000000000
13210	7079	9660000000000	5511	3690000000000

SOPHOMORES -- HSB FU2 WTS
 SUMS OF WTS, NUMS OF CASES, AND NONRESP ADJ FOR EACH CELL
 FU2 PARTICIPATION, FU1 PARTICIPN, TRANSCRIPTI/FU2 PARTICPN

CELL2	N OF CASES ALL	SUM OF WTS FOR ALL	SUM OF WTS FOR FU2 PART	FU2 NONRESP ADJUSTM
13211	126	11144.527000000000	10022.178000000000	1.11986536260
13212	93	5503.871999999999	4933.508999999999	1.115610004968
13213	62	3782.902000000000	3722.222000000000	1.016302090525
13214	39	1171.445000000000	1094.124000000000	1.070669320845
13220	6	1816.166000000000	1816.166000000000	1.000000000000
13221	7	2249.125000000000	2249.125000000000	1.000000000000
13222	14	2509.385000000000	2509.385000000000	1.000000000000
13223	5	556.126000000000	531.026000000000	1.047266988810
13224	4	123.875000000000	123.875000000000	1.000000000000
13230	10	1901.661000000000	1901.661000000000	1.000000000000
13231	20	3504.806000000000	3035.983000000000	1.154422142680
13232	27	3219.175000000000	2752.561000000000	1.169519948877
13233	29	4226.758000000000	4143.090000000000	1.020194589063
13234	27	2839.456000000000	2839.456000000000	1.000000000000
17110	13	228.868000000000	228.868000000000	1.000000000000
17111	30	1025.216000000000	974.701000000000	1.051826149763
17112	53	1749.603000000000	1656.930000000000	1.055930546251
17113	59	2873.000000000000	2690.850000000000	1.067692364866
17114	45	1423.720000000000	1406.556000000000	1.012202855770
17120	10	478.577000000000	320.234000000000	1.491460300905
17121	44	1313.676000000000	1255.935000000000	1.045974513012
17122	51	1181.317000000000	1065.228000000000	1.108980424848
17123	54	1643.033000000000	1643.033000000000	1.000000000000

CELL2	SUM OF WTS FOR FU1 PART	FU1 NONRESP ADJUSTM	SUM OF WTS FOR TRN2 PART	TRN2 NONRESP ADJUSTM
13211	1.000000000000	1.000000000000	9010.581999999998	1.236826544612
13212	1.105550821770	1.05550821770	4532.518999999999	1.214307540685
13213	1.008514880045	1.008514880045	3531.942000000000	1.071054394438
13214	1.000000000000	1.000000000000	1021.116000000000	1.147220296225
13220	1.000000000000	1.000000000000	1816.166000000000	1.000000000000
13221	1.000000000000	1.000000000000	2249.125000000000	1.000000000000
13222	1.000000000000	1.000000000000	657.453000000000	3.816827970973
13223	1.000000000000	1.000000000000	94.651000000000	5.875542783489
13224	1.000000000000	1.000000000000	98.775000000000	1.254112882814
13230	1.000000000000	1.000000000000	1028.911000000000	1.848226911754
13231	1.000000000000	1.000000000000	2599.608000000000	1.348205575610
13232	1.000000000000	1.000000000000	2608.508000000000	1.234105856681
13233	1.11512688233	1.11512688233	3191.005000000000	1.324585201214
13234	1.000000000000	1.000000000000	2784.881000000000	1.019596887623
17110	1.000000000000	1.000000000000	202.268000000000	1.131508691439
17111	1.008084610135	1.008084610135	952.632000000000	1.076193115495
17112	1.016692060681	1.016692060681	1542.838000000000	1.134016014643
17113	1.003245094558	1.003245094558	2361.473000000000	1.216613528929
17114	1.000000000000	1.000000000000	1340.096000000000	1.086729522111
17120	1.011241249469	1.011241249469	304.274000000000	1.572848813898
17121	1.010071683568	1.010071683568	1150.961000000000	1.141373165555
17122	1.050103151098	1.050103151098	1009.451000000000	1.170256902019
17123	1.000000000000	1.000000000000	1593.618000000000	1.031008058393

SOPHIOMORES -- HSB FU2 WTS
 SUMS OF WTS, NUMS OF CASES, AND NONRESP ADJ FOR EACH CELL
 FU2 PARTICIPATION, FU1 PARTICIP, TRANSCRIPTI/FU2 PARTICIP

CELL2	N OF CASES ALL	SUM OF WTS FOR ALL	SUM OF WTS FOR FU2 PART	102 NONRESP ADJUSTI
17124	27	913	700000000000	743
17130	68	9800	625999999980	8339
17131	36	3672	427000000000	3389
17132	134	13953	072000000000	12867
17133	230	26881	007999999900	25911
17134	311	33289	220999999900	31992
17210	20	437	696000000000	437
17211	71	1782	641000000000	1704
17212	84	2818	168000000000	2718
17213	85	3295	912000000000	3010
17214	66	2506	173000000000	2464
17220	37	845	706000000000	820
17221	76	1713	036000000000	1633
17222	54	1768	276000000000	1705
17223	36	1569	831000000000	1569
17224	26	1736	294000000000	1581
17230	60	4539	746000000000	3846
17231	65	5927	307999999900	5785
17232	182	20163	722999999900	18671
17233	279	32845	149999999900	30757
17234	334	40067	699999999900	39018
19110	23	2535	585000000000	2389
19120	20	1269	246000000000	1267

CELL2	SUM OF WTS FOR FU1 PART	FU1 NONRESP ADJUSTI	SUM OF WTS FOR TRN2 PART	TRN2 NONRESP ADJUSTI
17124	759	278000000000	692	457000000000
17130	9002	199999999980	8322	074999999980
17131	3672	427000000000	3132	627000000000
17132	13828	660000000000	12558	908000000000
17133	26583	500999999900	24429	075999999900
17134	33010	829999999900	31405	694999999900
17210	437	696000000000	433	406000000000
17211	1709	585000000000	1436	238000000000
17212	2740	945000000000	2472	670000000000
17213	3152	248000000000	2831	527000000000
17214	2491	311000000000	1903	203000000000
17220	826	169000000000	816	211000000000
17221	1636	927000000000	1446	511000000000
17222	1748	797000000000	1389	156000000000
17223	1557	099000000000	1230	326000000000
17224	1736	294000000000	1221	534000000000
17230	4072	440000000000	3429	944000000000
17231	5857	722999999900	5286	033999999900
17232	19200	385999999900	17784	667000000000
17233	32003	057999999900	29334	886999999900
17234	39592	684999999900	37339	885999999900
19110	2535	585000000000	2335	237000000000
19120	1265	964000000000	1267	550000000000

SOPHOMORES -- HSB FU2 WTS
 SUMS OF WTS, NUMS OF CASES, AND NONRESP ADJ FOR EACH CELL
 FU2 PARTICIPATION, FU1 PARTICIPN, TRANSCRIPT/FU2 PARTICPN

CELL2	N OF CASES ALL	SUM OF WTS FOR ALL		SUM OF WTS FOR FU2 PART		FU2 NONRESP ADJUSTM
		WTS FOR ALL	WTS FOR FU2 PART	WTS FOR FU2 PART	NONRESP ADJUSTM	
19130	30	13982	7570000000000	12237	2570000000000	1.142638174552
19131	8	3506	4130000000000	3076	1670000000000	1.139864318160
19132	17	6799	5050000000000	5291	2950000000000	1.285036082849
19133	32	10610	5030000000000	9580	3529999999900	1.107527353115
19134	70	16317	5610000000000	15982	6550000000000	1.020954340815
19210	14	3612	2220000000000	3612	2220000000000	1.000000000000
19220	6	959	6290000000000	959	6290000000000	1.000000000000
19230	33	14195	7440000000000	11385	9450000000000	1.246777847601
19231	16	6549	7650000000000	6113	3900000000000	1.071380199856
19232	17	6713	9080000000000	5785	7730000000000	1.160416767129
19233	31	11061	9900000000000	10625	6150000000000	1.041068211111
19234	49	14712	9310000000000	13194	9470000000000	1.115042826621
2 110	90	22216	9570000000000	14038	0650000000000	1.582622462569
2 111	178	17996	2239999999900	16632	3939999999900	1.081998418267
2 113	15	990	2330000000000	537	4550000000000	1.842448204966
2 120	76	23826	8530000000000	22763	0560000000000	1.046733487806
2 121	145	18815	1469999999900	16101	6970000000000	1.168519504497
2 123	11	1328	9710000000000	1210	0460000000000	1.098281387650
2 130	165	77928	6639999999700	53348	7339999999900	1.460740642880
2 131	501	80083	8759999999300	69130	3799999999700	1.158446923046
2 133	174	32082	5279999999900	28039	8229999999900	1.144177265313
2 210	65	16859	7670000000000	12244	4830000000000	1.376927633449
2 211	194	14915	4309999999900	13978	0019999999900	1.067064591921

CELL2	SUM OF WTS FOR FU1 PART	FU1 NONRESP ADJUSTM	SUM OF WTS FOR TRN2 PART		TRN2 NONRESP ADJUSTM
			WTS FOR TRN2 PART	NONRESP ADJUSTM	
19130	12673	6320000000000	11237	3760000000000	1.244308012831
19131	3506	4130000000000	2918	1670000000000	1.201333645337
19132	6274	8150000000000	4854	9200000000000	1.400539040808
19133	10400	6360000000000	8610	6009999999900	1.232260442680
19134	15952	2560000000000	15012	8280000000000	1.086907876384
19210	3612	2220000000000	3018	4470000000000	1.196715397024
19220	959	6290000000000	959	6290000000000	1.000000000000
19230	12145	8650000000000	11228	5450000000000	1.264254985842
19231	6113	3900000000000	5240	6430000000000	1.249802505038
19232	6277	5330000000000	3863	6430000000000	1.737714379926
19233	11061	9900000000000	9616	5959999999900	1.150302040348
19234	13631	7860000000000	12670	2570000000000	1.161218040013
2 110	21995	0080000000000	12847	3920000000000	1.729297043322
2 111	16528	6639999999900	12301	4030000000000	1.462940771878
2 113	913	6730000000000	362	7600000000000	2.729719373691
2 120	22986	6090000000000	19511	2540000000000	1.221185117061
2 121	16537	8820000000000	11318	5750000000000	1.662324718438
2 123	1098	0460000000000	837	9240000000000	1.586028088466
2 130	52007	7769999999900	39449	6960000000000	1.975393270458
2 131	70814	6429999999600	56395	3489999999800	1.420043982705
2 133	28401	6219999999900	24093	7330000000000	1.331571492056
2 210	15766	0180000000000	6444	6899999999900	2.616071060051
2 211	13829	9179999999900	11401	4770000000000	1.308201647909

SOPHOMORES -- HSB FU2 WTS
 SUMS OF WTS, NUMS OF CASES, AND NONRESP ADJ FOR EACH CELL
 FU2 PARTICIPATION, FU1 PARTICIPN, TRANSCRIPTI/FU2 PARTICPN

CELL2	N OF CASES ALL	SUM OF WTS FOR ALL	SUM OF WTS FOR FU2 PART	FU2 NONRESP ADJUST
2 213	22	2025	221000000000	1.000000000000
2 220	49	17013	807000000000	1.077027454067
2 221	139	16878	535000000000	1.146748515926
2 223	8	1000	461000000000	1.195936883629
2 230	122	65254	972999999900	1.418058759225
2 231	472	75637	479999999400	1.106863359502
2 233	158	27648	992999999900	1.096547439262
=====				
14825		3780927	8019999960000	3465680.803999970000

CELL2	SUM OF WTS FOR FU1 PART	FU1 NONRESP ADJUST	SUM OF WTS FOR TRN2 PART	TRN2 NONRESP ADJUST
2 213	1963	131000000000	1425	541000000000
2 220	16462	097000000000	11459	346000000000
2 221	15113	057000000000	10199	383000000000
2 223	1000	461000000000	635	032000000000
2 230	52722	384000000000	36371	942000000000
2 231	68243	141999999700	52767	413999999900
2 233	23516	879999999900	19877	495000000000
=====				
3545694		322999970000	3108727	131999970000

UNIVARIATE

VARIABLE=RAWWT RAW WEIGHT

MOMENTS

N 14825 SUM WGTs 14825
 MEAN 255.037 SUM 3780928
 STD DEV 240.215 VARIANCE 57703.2
 SKEWNESS 2.37723 KURTOSIS 11.8637
 USS 1819669595 CSS 855392021
 CV 94.1881 STD MEAN 1.97289
 T: MEAN=0 129.271
 SGN RANK 54948863 PROB>|T| 0.0001
 NUM ^= 0 14825 PROB>|S| 0.0001

QUANTILES(DEF=4)

100% MAX 3098.14 99%
 75% Q3 436.375 95%
 50% MED 147.865 90%
 25% Q1 102.798 10%
 0% MIN 1.449 5%
 1.449 1%

EXTREMES

LOWEST 1264.23 HIGHEST
 530.727 2229.2
 463.396 2239.24
 21.8632 2239.24
 14.68 2627.14
 5.296 3098.14

RANGE 3096.7
 Q3-Q1 333.577
 MODE 436.375

UNIVARIATE

VARIABLE=BYWT BYWT X RETENTION PROB

MOMENTS

N 13749 SUM WGTs 13749
 MEAN 274.997 SUM 3780928
 STD DEV 234.038 VARIANCE 54773.7
 SKEWNESS 1.78224 KURTOSIS 10.0191
 USS 1792771058 CSS 753028891
 CV 85.1057 STD MEAN 1.99595
 T: MEAN=0 137.777
 SGN RANK 47262188 PROB>|T| 0.0001
 NUM ^= 0 13749 PROB>|S| 0.0001

QUANTILES(DEF=4)

100% MAX 3488.27 99%
 75% Q3 491.324 95%
 50% MED 173.948 90%
 25% Q1 116.49 10%
 0% MIN 1.6447 5%
 1.6447 1%

EXTREMES

LOWEST 812.521 HIGHEST
 585.63 2468.71
 514.978 2468.71
 25.6908 2497.96
 15.4375 2497.96
 5.35276 3488.27

RANGE 3486.63
 Q3-Q1 374.835
 MODE 481.094

UNIVARIATE

VARIABLE=FU1WT FU1 WT ADJ FOR RETENIN PROB

MOMENTS

N 14102 SUM WGTs 14102
 MEAN 268.113 SUM 3780928
 STD DEV 259.069 VARIANCE 67116.7
 SKEWNESS 2.70942 KURTOSIS 15.1565
 USS 196.0127735 CSS 946412301
 CV 96.6268 STD MEAN 2.1816
 T: MEAN=0 122.897 PROB>|T| 0.0001
 SGN RANK 49720127 PROB>|S| 0.0001
 NUM = 0 14102

QUANTILES(DEF=4)

100% MAX 3242.93 99% 1350.8
 75% Q3 456.241 95% 562.27
 50% MED 155.861 90% 502.389
 25% Q1 107.125 10% 23.1761
 0% MIN 1.449 5% 15.1622
 1% 5.32

EXTREMES

LOWEST 1.449 HIGHEST 2525.29
 1.449 2598.54
 1.45276 2608.1
 1.45276 3170.41
 1.47824 3242.93

RANGE 3241.48
 Q3-Q1 349.116
 MODE 445.035

SOPHIOMORES - FU2 PARTICIPANTS 15:16 THURSDAY, DECEMBER 27, 1984 35

UNIVARIATE

VARIABLE=FU2WT

MOMENTS

N 13682 SUM WGTs 13682
 MEAN 276.343 SUM 3780928
 STD DEV 267.582 VARIANCE 71600.1
 SKEWNESS 2.81142 KURTOSIS 15.9689
 USS 2024395142 CSS 979561416
 CV 96.8296 STD MEAN 2.28761
 T: MEAN=0 120.8 PROB>|T| 0.0001
 SGN RANK 46802702 PROB>|S| 0.0001
 NUM = 0 13682

QUANTILES(DEF=4)

100% MAX 3378.83 99% 1403.09
 75% Q3 459.856 95% 572.33
 50% MED 160.765 90% 513.087
 25% Q1 111.251 10% 24.0824
 0% MIN 1.45094 5% 15.602
 1% 5.296

EXTREMES

LOWEST 1.45094 HIGHEST 2537.04
 1.45094 2542.3
 1.47936 2746.03
 1.47936 3249.36
 1.47936 3378.83

RANGE 3377.37
 Q3-Q1 348.605
 MODE 444.308

UNIVARIATE

VARIABLE=PAWELWT3

MOMENTS		QUANTILES(DEF=4)		EXTREMES					
N	12423	SUM WGT	12423	100% MAX	3882.43	99%	959.401	HIGHEST	2612.41
MEAN	304.349	SUM	3780928	75% Q3	528.493	95%	642.682	LOWEST	1.6748
STD DEV	257.447	VARIANCE	66278.9	50% MED	195.918	90%	574.611		1.6748
SKEWNESS	1.78207	KURTOSIS	10.2359	25% Q1	127.343	10%	28.7019		1.803
USS	1974038668	CSS	823317019	0% MIN	1.6748	5%	16.5852		1.82868
CV	84.5894	STD MEAN	2.3098	RANGE	3880.76	1%	5.64139		3882.43
T:MEAN=0	131.764	PROB> T	0.0001	Q3-Q1	401.15				
SGN RANK	38585830	PROB> S	0.0001	MODE	509.097				
NUM -# 0	12423								

UNIVARIATE

VARIABLE=TS1WT2

MOMENTS		QUANTILES(DEF=4)		EXTREMES			
N	10786	100% MAX	4421.23	99%	1171.89	HIGHEST	2932.33
MEAN	350.54	75% Q3	606.004	95%	742.262	LOWEST	2.3254
STD DEV	299.285	50% MED	224.895	90%	676.345		2.3254
SKEWNESS	1.81077	25% Q1	140.378	10%	29.7593		2.3254
USS	2291393679	0% MIN	2.3254	5%	17.0943		2.3254
CV	85.3781	RANGE	4418.91	1%	6.05822		4421.23
T:MEAN=0	121.642	Q3-Q1	465.626				
SGN RANK	29087146	MODE	571.443				
NUM -# 0	10786						

UNIVARIATE

VARIABLE = IRWT2

MOMENTS

N 12142
 MEAN 311.393
 STD DEV 301.688
 SKEWNESS 3.2779
 USS 2282374661
 CV 96.8836
 T-MEAN=0 113.735
 SGN RANK 36860077
 NUM τ = 0 12142

SUM WGTs 12142
 SUM 3780928
 VARIANCE 91015.7
 KURTOSIS 21.9507
 CSS 1105022080
 STD MEAN 2.73787
 PROB>|T| 0.0001
 PROB>|S| 0.0001

QUANTILES(DEF=4)

100% MAX 3913.64
 75% Q3 503.298
 50% MED 185.271
 25% Q1 125.461
 0% MIN 1.45094
 RANGE 3912.19
 Q3-Q1 377.837
 MODE 479.654

EXTREMES

LOWEST 1.45094
 HIGHEST 3474.22
 1.45094 3484.91
 1.57493 3549.89
 1.57493 3700.14
 1.57493 3913.64

1541.18
 635.051
 578.808
 30.0352
 16.8845
 6.16457

99%
 95%
 90%
 10%
 5%
 1%

LIST OF SOPHOMORE WEIGHTS with
VALUES GREATER THAN 1000
in DECREASING ORDER BY WEIGHT

LIST OF THE ADJUSTED BASE YEAR WEIGHTS GT 1000

16:10 THURSDAY, DECEMBER 27, 1984

CELL3	BYWT	RAWWT	NRADBY
1113	3488.27	3098.14	1.12592
1113	2497.96	2218.59	1.12592
1113	2497.96	2218.59	1.12592
1123	2468.71	2239.24	1.10248
1123	2468.71	2239.24	1.10248
1123	2445.95	2218.59	1.10248
1123	2273.76	2062.41	1.10248
1123	2227.03	2020.02	1.10248
1113	2066.78	1835.63	1.12592
1113	2065.09	1834.13	1.12592
1113	2039.97	1811.82	1.12592
1113	2039.97	1811.82	1.12592
1123	1994.22	1808.85	1.10248
1123	1954.22	1772.57	1.10248
2.23	1923.30	1342.31	1.43282
1923	1901.66	1639.27	1.16007
1113	1898.61	1686.27	1.12592
1113	1887.60	1676.50	1.12592
1123	1884.96	1709.75	1.10248
1913	1860.67	1639.27	1.13506
1123	1834.43	1663.91	1.10248
1113	1821.63	1617.90	1.12592
1113	1795.58	1594.77	1.12592
1113	1731.45	1537.81	1.12592
1123	1730.97	1570.07	1.10248
1123	1719.24	1559.43	1.10248
1113	1712.03	1520.56	1.12592
1113	1702.64	1512.22	1.12592
1123	1700.76	1542.67	1.10248
1113	1699.28	1509.24	1.12592
1113	1660.04	1474.38	1.12592
1123	1631.69	1480.02	1.10248
1113	1616.88	1436.05	1.12592
1123	1612.19	1462.33	1.10248
1113	1590.73	1412.82	1.12592
1111	1569.58	1342.31	1.16931
1113	1525.31	1354.72	1.12592
1113	1512.86	1343.66	1.12592
1113	1509.16	1340.38	1.12592
1123	1487.91	1349.60	1.10248
1113	1486.73	1320.46	1.12592
1123	1484.48	1346.49	1.10248
1123	1477.74	1340.38	1.10248
1113	1461.96	1298.46	1.12592
1113	1460.99	1297.59	1.12592
1123	1460.46	1324.70	1.10248
1123	1453.52	1318.41	1.10248
1123	1428.83	1296.02	1.10248
1122	1423.00	1260.22	1.12917
1123	1421.11	1289.01	1.10248
1113	1418.91	1260.22	1.12592
1113	1418.91	1260.22	1.12592
1113	1399.99	1243.41	1.12592
1123	1398.53	1268.53	1.10248
1123	1395.47	1265.76	1.10248

LIST OF THE ADJUSTED BASE YEAR WEIGHTS GT 1000

16:10 THURSDAY, DECEMBER 27, 1984 2

CLL13	BYWT	RAWWT	NRADBY
1113	1393.29	1237.47	1 12592
1123	1389.36	1260.22	1 10248
1123	1389.36	1260.22	1 10248
1121	1388.69	1238.08	1 12165
1113	1379.31	1225.05	1 12592
1113	1376.56	1222.61	1 12592
1113	1373.98	1220.32	1 12592
1113	1369.72	1216.53	1 12592
1113	1355.79	1204.16	1 12592
1123	1342.32	1217.54	1 10218
1123	1323.67	1200.63	1 10248
1123	1309.81	1188.06	1 10218
1111	1309.15	1119.59	1 16911
1122	1294.43	1146.35	1 12917
1122	1294.43	1146.35	1 12917
1113	1293.63	1148.95	1 12592
1113	1291.07	1146.68	1 12592
2 13	1277.36	875.67	1 45872
1123	1272.44	1154.16	1 10248
1123	1266.69	1148.95	1 10248
1113	1264.90	1123.43	1 12592
1123	1232.06	1117.53	1 10248
1123	1224.98	1111.11	1 10218
1123	1222.94	1109.27	1 10248
1113	1212.94	1077.29	1 12592
1123	1187.69	1077.29	1 10248
1113	1174.13	1042.82	1 12592
2 13	1098.67	753.17	1 45872
1123	1091.40	989.95	1 10248
1113	1090.65	968.67	1 12592
2 23	1064.63	743.03	1 43282
1122	1019.46	929.40	1 12917
1122	1019.46	929.40	1 12917
1122	1019.46	929.40	1 12917
1113	1016.44	929.40	1 12592
1113	1016.44	929.40	1 12592
1112	1044.43	913.80	1 14295
1113	1038.89	922.70	1 12592
1123	1024.65	929.40	1 10248
1113	1023.40	908.95	1 12592
1113	1021.51	907.26	1 12592
2 13	1006.47	689.97	1 45872
1123	1000.24	907.26	1 10248

LIST OF THE ADJUSTED FUI WEIGHTS GT 1000

CELL2	FUIWI	RAWWI	NRADFUI
11132	3242.93	3098.14	1.04673
11130	3170.41	2627.14	1.20679
2 130	2608.10	1740.42	1.49855
2 130	2598.54	1734.04	1.49855
2 230	2525.29	2040.29	1.23771
2 130	2428.21	1620.38	1.49855
2 230	2396.79	1936.47	1.23771
11230	2359.13	2070.01	1.13967
2 130	2344.31	1564.39	1.49855
11231	2333.87	2218.59	1.05196
11134	2325.40	2218.59	1.04814
11132	2322.27	2218.59	1.04673
2 120	2310.68	2229.20	1.03655
2 130	2307.75	1539.99	1.49855
11230	2302.16	2020.02	1.13967
11233	2298.62	2239.24	1.02652
11234	2283.68	2239.24	1.01985
2 110	2251.69	2229.20	1.01009
2 130	2216.04	1478.79	1.49855
2 230	2214.38	1789.09	1.23771
2 130	2207.28	1472.95	1.49855
11130	2186.49	1811.82	1.20679
2 230	2178.01	1759.71	1.23771
2 130	2174.83	1451.29	1.49855
2 230	2165.97	1749.99	1.23771
2 130	2143.07	1430.10	1.49855
11232	2127.97	2062.41	1.03179
2 130	2126.15	1418.81	1.49855
11130	2108.25	1746.99	1.20679
11130	2083.78	1726.72	1.20679
2 230	2068.02	1670.84	1.23771
2 130	2052.63	1369.75	1.49855
2 230	2012.00	1625.58	1.23771
2 130	2006.41	1338.90	1.49855
11130	1983.29	1643.45	1.20679
2 230	1981.45	1600.90	1.23771
11230	1957.22	1717.35	1.13967
2 130	1918.54	1280.27	1.49855
2 220	1913.87	1851.81	1.03351
2 130	1900.78	1268.41	1.49855
11133	1887.26	1835.63	1.02812
11133	1885.71	1834.13	1.02812
11220	1883.74	1842.44	1.02241
2 230	1871.31	1511.91	1.23771
11131	1865.11	1676.50	1.11251
11133	1862.78	1811.82	1.02812
2 210	1857.38	1736.88	1.06937
11230	1848.80	1622.22	1.13967
11234	1844.75	1808.85	1.01985
2 130	1832.82	1223.01	1.49855
11232	1828.92	1772.57	1.03179
2 130	1820.89	1215.10	1.49855
2 130	1803.10	1203.23	1.49855
2 130	1797.39	1199.42	1.49855

LIST OF THE ADJUSTED FUI WEIGHTS GT 1000

CELL 2	FUIWI	RAWWI	NRADFUI
19130	1786.95	1619.65	1.10330
11130	1784.59	1478.79	1.20679
2 130	1784.01	1190.49	1.49855
2 230	1783.39	1440.88	1.23771
2 120	1769.36	1706.96	1.03655
19234	1769.28	1639.27	1.07931
11233	1755.09	1709.75	1.02652
2 130	1753.07	1169.84	1.49855
11231	1750.38	1663.91	1.05196
2 130	1744.36	1164.03	1.49855
2 230	1734.77	1401.60	1.23771
2 120	1733.72	1672.58	1.03655
2 230	1727.86	1396.01	1.23771
2 230	1719.65	1389.38	1.23771
11210	1694.18	1630.49	1.03906
11230	1686.74	1480.02	1.13967
2 230	1673.35	1351.97	1.23771
11230	1664.74	1460.72	1.13967
11173	1639.62	1594.77	1.02812
11230	1638.87	1438.01	1.13967
2 130	1636.73	1092.21	1.49855
2 130	1635.72	1091.53	1.49855
11230	1616.98	1418.81	1.13967
11120	1614.36	1557.98	1.03619
11134	1611.84	1537.81	1.04814
11233	1611.71	1570.07	1.02652
11230	1611.62	1414.11	1.13967
11232	1609.00	1559.43	1.03179
2 130	1605.41	1071.31	1.49855
2 210	1599.78	1496.00	1.06937
2 120	1593.46	1537.26	1.03655
11220	1592.90	1557.98	1.02241
11132	1591.62	1520.56	1.04673
2 120	1591.47	1535.34	1.03655
2 120	1591.47	1535.34	1.03655
11220	1586.80	1552.01	1.02241
11134	1585.02	1512.22	1.04814
11233	1583.58	1542.67	1.02652
2 233	1578.17	1342.31	1.17571
11230	1575.78	1382.66	1.13967
2 130	1574.07	1050.40	1.49855
11230	1561.45	1370.08	1.13967
11220	1557.62	1523.47	1.02241
11133	1551.68	1509.24	1.02812
11132	1543.28	1474.38	1.01673
11231	1538.32	1462.33	1.05196
2 220	1535.79	1485.99	1.03351
11230	1530.58	1343.00	1.13967
11130	1525.87	1264.40	1.20679
11110	1516.70	1516.70	1.00000
11131	1507.13	1354.72	1.11251
11110	1505.03	1505.03	1.00000
2 230	1491.51	1205.08	1.23771
2 230	1491.54	1205.08	1.23771
2 220	1480.97	1432.95	1.03351

CELL2	FUIWT	RAWWT	NRADFUI
2 110	1474.09	1459.36	1.01009
2 230	1468.27	1186.28	1.23771
2 230	1461.47	1180.78	1.23771
11133	1452.56	1412.82	1.02812
2 230	1443.43	1166.21	1.23771
2 110	1439.99	1425.60	1.01009
11130	1439.23	1192.61	1.20679
11230	1425.92	1251.17	1.13967
2 210	1424.53	1332.11	1.06937
11231	1410.03	1340.38	1.05196
11134	1408.35	1343.66	1.04814
11230	1403.66	1231.63	1.13967
2 110	1394.50	1380.56	1.01009
11130	1390.07	1151.88	1.20679
11230	1387.92	1217.83	1.13967
11220	1385.46	1355.09	1.02241
11233	1385.39	1349.60	1.02652
11134	1384.03	1320.46	1.04814
2 110	1383.57	1369.75	1.01009
2 120	1373.91	1325.46	1.03655
11234	1373.21	1346.49	1.01985
2 120	1370.99	1322.64	1.03655
2 230	1361.98	1100.41	1.23771
11132	1359.14	1298.46	1.04673
11230	1356.73	1190.46	1.13967
11111	1355.26	1342.31	1.00965
11233	1353.38	1318.41	1.02652
11230	1353.36	1187.50	1.13967
11234	1350.99	1324.70	1.01985
11211	1344.77	1238.08	1.08617
11131	1339.63	1204.16	1.11251
2 120	1334.42	1287.36	1.03655
11230	1329.92	1166.93	1.13967
11221	1326.96	1260.22	1.05296
11230	1326.90	1164.28	1.13967
11231	1325.70	1260.22	1.05196
11234	1321.74	1296.02	1.01985
11134	1320.89	1260.22	1.04814
11234	1314.59	1289.01	1.01985
2 220	1311.58	1269.04	1.03351
11232	1305.99	1265.76	1.03179
11132	1301.52	1243.41	1.04673
11133	1295.66	1260.22	1.02812
11132	1295.30	1237.47	1.04673
11234	1293.71	1268.53	1.01985
11233	1293.64	1260.22	1.02652
2 210	1292.08	1208.26	1.06937
11132	1282.30	1225.05	1.04673
11110	1281.80	1281.80	1.00000
11132	1279.74	1222.61	1.04673
11134	1279.07	1220.32	1.04814
11132	1273.38	1216.53	1.04673
2 220	1271.64	1230.40	1.03351
11130	1256.07	1040.83	1.20679
11130	1255.23	1040.14	1.20679
11110	1243.92	1243.92	1.00000

LIST OF THE ADJUSTED FUJ WEIGHTS GT 1000

CELL 2	FUJW1	RAWWT	NRADFU1
11234	1241.71	1217.54	1.01985
11232	1238.79	1200.63	1.03179
2 210	1235.45	1155.30	1.06937
11230	1227.75	1077.29	1.13967
11110	1223.25	1223.25	1.00000
11130	1220.51	1011.37	1.20679
11222	1210.26	1146.35	1.05575
11130	1209.07	1001.89	1.20679
11130	1206.10	999.43	1.20679
11134	1201.88	1146.68	1.04814
2 230	1197.59	967.59	1.23771
11210	1191.56	1146.76	1.03906
11232	1185.47	1148.95	1.03179
11233	1184.77	1154.16	1.02652
11133	1181.26	1148.95	1.02812
11134	1177.52	1123.43	1.04814
11230	1177.19	1032.92	1.13967
2 120	1171.51	1130.19	1.03655
2 130	1169.90	780.69	1.49855
2 230	1165.83	941.93	1.23771
2 110	1159.59	1148.01	1.01009
2 110	1155.45	1143.90	1.01009
11220	1152.27	1127.01	1.02241
11110	1151.88	1151.88	1.00000
2 210	1148.83	1074.30	1.06937
11223	1146.35	1146.35	1.00000
11233	1140.58	1111.11	1.02652
11234	1139.71	1117.53	1.01985
11130	1135.90	941.26	1.20679
11234	1131.28	1109.27	1.01985
2 230	1127.22	910.73	1.23771
11114	1119.59	1119.59	1.00000
2 130	1118.47	746.37	1.49855
2 220	1117.22	1080.99	1.03351
11230	1109.19	973.25	1.13967
11130	1096.91	908.95	1.20679
2 230	1095.16	884.83	1.23771
11132	1091.55	1042.82	1.04673
2 230	1078.48	871.35	1.23771
11130	1072.36	888.60	1.20679
2 230	1062.33	858.31	1.23771
2 220	1039.42	1005.71	1.03351
11230	1035.40	908.50	1.13967
11131	1033.97	929.40	1.11251
2 230	1029.57	831.83	1.23771
11130	1016.95	842.69	1.20679
11234	1009.60	989.95	1.01985
11130	1003.85	831.83	1.20679

LIST OF THE FU2 WEIGHTS GT 1000

CELL 2	FU2WT	RAWWT	NRADFU2
11132	3378.83	3098.14	1.09060
11130	3249.36	2627.14	1.23684
2.230	2746.03	1936.47	1.41806
2.130	2542.30	1740.42	1.46074
2.230	2537.04	1789.09	1.41806
2.130	2532.98	1734.04	1.46074
11130	2528.21	2044.09	1.23684
2.230	2495.37	1759.71	1.41806
2.230	2481.58	1749.99	1.41806
11132	2419.59	2218.59	1.09060
11230	2398.30	2070.01	1.15859
2.210	2391.56	1736.88	1.37693
2.230	2369.35	1670.84	1.41806
2.130	2366.95	1620.38	1.46074
11230	2340.38	2020.02	1.15859
11231	2337.97	2218.59	1.05381
2.120	2333.37	2229.20	1.04673
11134	2315.87	2218.59	1.04385
2.110	2309.62	1459.36	1.58262
2.230	2305.18	1625.58	1.41806
11233	2297.74	2239.24	1.02612
2.130	2285.16	1564.39	1.46074
11234	2279.95	2239.24	1.01818
2.230	2270.17	1600.90	1.41806
2.110	2256.19	1425.60	1.58262
11130	2240.93	1811.82	1.23684
11130	2160.74	1746.99	1.23684
2.130	2160.13	1478.79	1.46074
11232	2151.77	2062.41	1.04333
2.130	2151.59	1472.95	1.46074
2.230	2139.87	1509.01	1.41806
11130	2135.67	1726.72	1.23684
2.130	2119.96	1451.29	1.46074
2.130	2089.00	1430.10	1.46074
2.130	2072.51	1418.81	1.46074
2.130	2060.74	1410.75	1.46074
2.210	2059.88	1496.00	1.37693
2.230	2043.25	1440.88	1.41806
11130	2032.68	1643.45	1.23684
2.130	2000.85	1369.75	1.46074
11220	2000.15	1842.44	1.08560
2.220	1994.45	1851.81	1.07703
11230	1989.71	1717.35	1.15859
2.230	1979.63	1396.01	1.41806
2.230	1970.22	1389.38	1.41806
2.130	1955.79	1338.90	1.46074
11133	1939.89	1835.63	1.05680
11133	1938.31	1834.13	1.05680
2.230	1917.18	1351.97	1.41806
11133	1914.73	1811.82	1.05680
11230	1879.49	1622.22	1.15859
2.130	1870.14	1280.27	1.46074
2.130	1858.58	1272.35	1.46074
19130	1850.67	1619.65	1.1264
2.130	1849.94	1266.44	1.46074
11232	1849.37	1772.57	1.04333

LIST OF FU2 WEIGHTS C 000

CELL 2	FU2W1	RAWWT	NRADJ112
2 130	1845 99	1263 73	1 46074
11234	1841 74	1808 85	1 01818
2 210	1834 23	1332 11	1 37693
11130	1829 03	1478 79	1 23684
19234	1827 86	1639 27	1 11504
19133	1815 54	1639 27	1 10753
2 110	1810 37	1143 90	1 58262
11120	1806 97	1557 98	1 15982
11131	1792 93	1686 27	1 06325
2 120	1786 74	1706 96	1 04673
2 130	1786 58	1223 07	1 46074
11131	1782 53	1676 50	1 06325
2 230	1782 36	1256 90	1 41806
2 130	1774 95	1215 10	1 46074
2 130	1764 95	1208 26	1 46074
2 130	1763 17	1207 04	1 46074
2 130	1757 61	1203 23	1 46074
11233	1754 41	1709 75	1 02612
11231	1753 45	1663 91	1 05381
2 120	1750 74	1672 58	1 01673
11110	1742 81	1516 70	1 14908
2 130	1739 00	1190 49	1 46074
11110	1729 40	1505 03	1 14908
11230	1714 74	1480 02	1 15859
2 230	1708 88	1205 08	1 41806
2 130	1708 84	1169 84	1 46074
2 130	1700 35	1164 03	1 46074
11230	1692 38	1460 72	1 15859
11220	1691 34	1557 98	1 08560
11134	1688 84	1617 90	1 04385
11133	1685 35	1594 77	1 05680
11220	1684 86	1552 01	1 08560
2 230	1674 42	1180 78	1 41806
11230	1666 07	1438 01	1 15859
2 210	1663 68	1208 26	1 37693
11220	1653 88	1523 47	1 08560
2 230	1653 76	1166 21	1 41806
11230	1643 82	1418 81	1 15859
11230	1638 38	1414 11	1 15859
11232	1627 00	1559 43	1 04333
11233	1611 09	1570 07	1 02612
2 120	1609 11	1537 26	1 04673
11132	1607 95	1474 38	1 09060
2 120	1607 09	1535 34	1 04673
2 120	1607 09	1535 34	1 04673
11134	1605 24	1537 81	1 04385
11230	1601 94	1382 66	1 15859
2 220	1600 45	1485 99	1 07703
2 130	1595 43	1092 21	1 46074
11133	1594 96	1509 24	1 05680
2 130	1594 45	1091 53	1 46074
11230	1587 37	1370 08	1 15859
11233	1582 97	1542 67	1 02612
2 130	1573 17	1076 96	1 46074
2 130	1564 90	1071 31	1 46074
11130	1563 86	1264 40	1 23684

LIST OF FU2 WEIGHTS GT 1000

CELL 2	FU2WT	RAWWT	NRADFU2
2 230	1560.41	1100.41	1 41806
2 220	1543.33	1432.95	1 07703
11231	1541.02	1462.33	1 05381
2 130	1534.36	1050.40	1 46074
2 110	1521.07	961.11	1 58262
11133	1517.62	1436.05	1 05680
11133	1493.07	1412.82	1 05680
2 210	1479.24	1074.30	1 37693
11130	1475.07	1192.61	1 23684
11110	1472.89	1281.80	1 14908
2 233	1471.91	1342.31	1 09655
11220	1471.08	1355.09	1 08560
11230	1449.60	1251.17	1 15859
11131	1440.40	1354.72	1 06325
11110	1429.37	1243.92	1 14908
11230	1428.92	1233.32	1 15859
11230	1426.96	1231.63	1 15859
11111	1426.89	1342.31	1 06301
11131	1425.16	1340.38	1 06325
11130	1424.69	1151.88	1 23684
11132	1416.09	1298.46	1 09060
11231	1412.50	1340.38	1 05381
11230	1410.97	1217.83	1 15859
11110	1405.62	1223.25	1 14908
11134	1402.58	1343.66	1 04385
11211	1388.99	1238.08	1 12189
2 120	1387.40	1325.46	1 04673
11233	1384.86	1349.60	1 02612
2 120	1384.15	1322.64	1 04673
11230	1379.26	1190.46	1 15859
11134	1378.36	1320.46	1 04385
11230	1375.82	1187.50	1 15859
2 230	1372.09	967.59	1 41806
11234	1370.97	1346.49	1 01818
2 220	1366.80	1269.04	1 07703
11132	1356.06	1243.41	1 09060
11134	1354.49	1297.59	1 04385
11233	1352.86	1318.41	1 02612
11210	1352.21	1146.76	1 17915
11230	1352.00	1166.93	1 15859
11132	1349.58	1237.47	1 09060
11230	1348.93	1164.28	1 15859
11234	1348.78	1324.70	1 01818
2 120	1347.52	1287.36	1 04673
11132	1336.04	1225.05	1 09060
2 230	1335.71	941.93	1 41806
11132	1333.37	1222.61	1 09060
11130	1332.43	1077.29	1 23684
11133	1331.80	1260.22	1 05680
11231	1328.03	1260.22	1 05381
11132	1326.74	1216.53	1 09060
2 220	1325.18	1230.40	1 07703
11232	1320.60	1265.76	1 04333
11234	1319.58	1296.02	1 01818
11221	1318.17	1260.22	1 04599
11234	1312.44	1289.01	1 01818

LIST OF FU2 WEIGHTS GT 1000

16:10 THURSDAY, DECEMBER 27, 1984 10

CELL.2	FU2WT	RAWWT	NRADFU2
11233	1293 14	1260.22	1 02612
11234	1291 59	1268 53	1 01818
2 230	1291 47	910 73	1 41806
11130	1287 35	1040 83	1 23684
11130	1286 49	1040 14	1 23684
11131	1280 32	1204 16	1 06325
11134	1273 83	1220 32	1 04385
2 110	1270 07	802 51	1 58262
2 230	1254 74	884 83	1 41806
11230	1248 14	1077 29	1 15859
11234	1239 68	1217 54	1 01818
11130	1239 18	1001 89	1 23684
11130	1236 13	999 43	1 23684
2 230	1235 63	871 35	1 41806
11233	1219 09	1188 06	1 02612
2 230	1217 13	858 31	1 41806
11133	1214 21	1148 95	1 05680
11232	1198 73	1148 95	1 04333
11134	1196 96	1146 68	1 04385
11230	1196 74	1032 92	1 15859
11222	1190 81	1146 35	1 03878
11114	1189 44	1119 59	1 06238
11233	1184 31	1154 16	1 02612
2 120	1183 01	1130 19	1 04673
2 230	1179 59	831 83	1 41806
11134	1172 69	1123 43	1 04385
2 220	1164 26	1080 99	1 07703
11130	1164 19	941 26	1 23684
11223	1161 40	1146 35	1 01313
13130	1141 62	436 38	2 61614
13130	1141 62	436 38	2 61614
13130	1141 62	436 38	2 61614
2 130	1140 39	780 69	1 46074
11233	1140 14	1111 11	1 02612
11234	1137 85	1117 53	1 01818
11132	1137 29	1042 82	1 09060
11234	1129 43	1109 27	1 01818
11230	1127 60	973 25	1 15859
11130	1124 22	908 95	1 23684
2 230	1124 15	792 74	1 41806
11210	1117 41	947 64	1 17915
11130	1099 06	888 60	1 23684
11230	1089 14	940 05	1 15859
2 220	1083 18	1005 71	1 07703
11230	1052 59	908 50	1 15859
11130	1042 27	842 69	1 23684
11130	1028 84	831 83	1 23684
11133	1023 69	968 67	1 05680
11121	1015 45	913 80	1 11124
2 131	1014 42	875 67	1 15845
11132	1013 61	929 40	1 09060
11234	1007 95	989 95	1 01818
11132	1006 30	922 70	1 09060
2 120	1006 02	961 11	1 04673

LIST OF PANEL WEIGHTS GT 1000

CELL 3	PANELWT3	RAWWT	NRADPAN3
1113	3882.43	3098.14	1.25315
1113	2780.22	2218.59	1.25315
1113	2780.22	2218.59	1.25315
1123	2612.41	2239.24	1.16665
1123	2612.41	2239.24	1.16665
1123	2588.32	2218.59	1.16665
1123	2406.11	2062.41	1.16665
1123	2356.66	2020.02	1.16665
1113	2300.32	1835.63	1.25315
1113	2298.44	1834.13	1.25315
2.23	2292.98	1342.31	1.70824
1113	2270.48	1811.82	1.25315
1113	2270.48	1811.82	1.25315
1923	2137.94	1639.27	1.30421
1913	2116.70	1639.27	1.29125
1123	2110.30	1808.85	1.16665
1113	2100.90	1676.50	1.25315
1123	2067.97	1772.57	1.16665
1113	1998.48	1594.77	1.25315
1123	1994.68	1709.75	1.16665
1123	1941.21	1663.91	1.16665
1113	1927.10	1537.81	1.25315
1113	1891.30	1509.24	1.25315
1113	1817.62	1474.38	1.25315
1123	1831.73	1570.07	1.16665
1123	1819.31	1559.43	1.16665
1123	1799.75	1542.67	1.16665
1113	1770.48	1412.82	1.25315
1111	1742.78	1342.31	1.29835
1123	1726.67	1480.02	1.16665
1123	1706.03	1462.33	1.16665
1113	1697.66	1354.72	1.25315
1113	1683.80	1343.66	1.25315
1113	1654.73	1320.46	1.25315
2.13	1628.68	875.67	1.85993
1113	1627.16	1298.46	1.25315
1113	1579.24	1260.22	1.25315
1123	1574.52	1349.60	1.16665
1123	1570.89	1346.49	1.16665
1123	1563.75	1340.38	1.16665
1113	1558.18	1243.41	1.25315
1113	1550.73	1237.47	1.25315
1123	1545.46	1324.70	1.16665
1123	1538.13	1318.41	1.16665
1113	1535.17	1225.05	1.25315
1113	1532.11	1222.61	1.25315
1121	1529.99	1238.08	1.23578
1113	1529.24	1220.32	1.25315
1122	1526.25	1260.22	1.21110
1113	1524.49	1216.53	1.25315
1123	1512.00	1296.02	1.16665
1113	1508.99	1204.16	1.25315
1123	1503.83	1289.01	1.16665
1123	1479.93	1268.53	1.16665
1123	1476.70	1265.76	1.16665
1123	1470.23	1260.22	1.16665

LIST OF PANEL WEIGHTS GT 1000

CELL#	PANELWT3	RAWWT	NRADPANG
1123	1470.23	1260.22	1.16665
1111	1453.62	1119.59	1.29835
1113	1439.80	1148.95	1.25315
1113	1436.95	1146.68	1.25315
1123	1420.45	1217.54	1.16665
1113	1407.83	1123.43	1.25315
1122	1388.35	1146.35	1.21110
1122	1346.50	1154.16	1.16665
1123	1340.42	1148.95	1.16665
1113	1306.81	1042.82	1.25315
1123	1303.77	1117.53	1.16665
1123	1296.28	1111.11	1.16665
1123	1294.13	1109.27	1.16665
2 13	1283.29	689.97	1.85993
2 13	1272.22	684.02	1.85993
2 23	1269.27	743.03	1.70824
2 13	1264.87	680.06	1.85993
1123	1256.82	1077.29	1.16665
1112	1246.76	913.80	1.36437
2 13	1225.69	659.00	1.85993
1113	1213.89	968.67	1.25315
2 13	1209.74	650.42	1.85993
2 13	1192.75	641.29	1.85993
1113	1164.68	929.40	1.25315
1113	1164.68	929.40	1.25315
1113	1156.28	922.70	1.25315
1123	1154.93	989.95	1.16665
1113	1139.04	908.95	1.25315
1113	1136.93	907.26	1.25315
1122	1125.60	929.40	1.21110
1122	1125.60	929.40	1.21110
1122	1123.77	823.66	1.36437
2 23	1102.59	645.46	1.70824
2 13	1090.75	586.45	1.85993
1123	1084.29	929.40	1.16665
2 13	1075.01	577.98	1.85993
1111	1074.83	827.85	1.29835
1123	1058.46	907.26	1.16665
2 23	1058.02	619.36	1.70824
2 13	1055.11	567.29	1.85993
1123	1049.68	899.74	1.16665
1111	1031.17	794.21	1.29835
1113	1030.23	822.11	1.25315
1113	1030.23	822.11	1.25315
2 13	1027.47	552.42	1.85993
2 13	1016.11	546.32	1.85993
2 13	1009.14	542.57	1.85993
1113	1005.58	802.44	1.25315
2 13	1004.54	540.10	1.85993
2 13	1002.16	538.81	1.85993
2 23	1000.73	585.83	1.70824
2 13	1000.28	537.81	1.85993

CELL3	TSIWT2	RAWWT	NRADTST2
1113	4421.23	3098.14	1.42706
1113	3166.06	2218.59	1.42706
1113	3166.06	2218.59	1.42706
1123	2932.33	2239.24	1.30952
1123	2932.33	2239.24	1.30952
2 23	2914.85	1342.31	2.17152
1123	2905.29	2218.59	1.30952
1123	2700.77	2062.41	1.30952
1913	2630.75	1639.27	1.60483
1113	2619.55	1835.63	1.42706
1113	2617.41	1834.13	1.42706
1923	2594.37	1639.27	1.58264
1113	2585.58	1811.82	1.42706
1113	2392.46	1676.50	1.42706
1123	2368.73	1808.85	1.30952
1123	2321.22	1772.57	1.30952
1113	2275.82	1594.77	1.42706
1123	2238.96	1709.75	1.30952
1113	2194.54	1537.81	1.42706
1123	2178.93	1663.91	1.30952
1113	2153.77	1509.24	1.42706
1113	2104.02	1474.38	1.42706
2 13	2086.43	875.67	2.38266
1111	2080.47	1342.31	1.51992
1123	2056.05	1570.07	1.30952
1123	2042.11	1559.43	1.30952
1113	2016.18	1412.82	1.42706
1113	1933.26	1354.72	1.42706
1113	1917.48	1343.66	1.42706
1113	1884.37	1320.46	1.42706
1113	1852.97	1298.46	1.42706
1113	1798.40	1260.22	1.42706
1121	1778.22	1238.08	1.43627
1113	1774.42	1243.41	1.42706
1123	1767.34	1349.60	1.30952
1113	1765.94	1237.47	1.42706
1123	1763.26	1346.49	1.30952
1123	1755.25	1340.38	1.30952
1122	1750.09	1260.22	1.38872
1113	1748.22	1225.05	1.42706
1113	1744.73	1222.61	1.42706
1113	1741.46	1220.32	1.42706
1113	1736.06	1216.53	1.42706
1111	1735.27	1119.59	1.51992
1123	1726.49	1318.41	1.30952
1113	1718.41	1204.16	1.42706
1123	1697.17	1296.02	1.30952
1123	1687.99	1289.01	1.30952
1123	1661.17	1268.53	1.30952
1123	1657.54	1265.76	1.30952
1123	1650.28	1260.22	1.30952
1123	1650.28	1260.22	1.30952
2 13	1643.96	689.97	2.38266
1113	1639.61	1148.95	1.42706
1113	1636.37	1146.68	1.42706
2 13	1629.79	684.02	2.38266

LIST OF THE TEST/FU2 WEIGHTS GT 1000

16:10 THURSDAY, DECEMBER 27, 1984

CELL3	ISIWT2	RAWWT	NRADISI2
2 23	1613.50	743.03	2 17152
1113	1603.20	1123.43	1.42706
1123	1594.40	1217.54	1.30952
1122	1591.97	1146.35	1.38872
1122	1591.97	1146.35	1.38872
2 13	1570.18	659.00	2.38266
2 13	1549.74	650.42	2.38266
1123	1511.40	1154.16	1.30952
1123	1504.57	1148.95	1.30952
1123	1463.43	1117.53	1.30952
1112	1460.43	913.80	1.59819
1123	1455.02	1111.11	1.30952
1123	1452.61	1109.27	1.30952
2 13	1397.31	586.45	2.38266
1113	1382.35	968.67	1.42706
2 13	1377.14	577.98	2.38266
2 13	1351.65	567.29	2.38266
2 23	1344.96	619.36	2 17152
2 12	1339.35	429.10	3 12132
1113	1326.31	929.40	1.42706
1113	1316.75	929.40	1.42706
1112	1316.36	823.66	1.59819
2 13	1316.24	552.42	2.38266
2 13	1301.69	546.32	2.38266
1123	1296.36	989.95	1.30952
1113	1294.71	907.26	1.42706
2 13	1292.77	542.57	2.38266
1122	1290.69	929.40	1.38872
1122	1290.69	929.40	1.38872
1122	1290.69	929.40	1.38872
1111	1283.09	827.85	1.54992
2 13	1281.41	537.81	2.38266
2 13	1279.31	536.93	2.38266
2 23	1272.13	585.83	2 17152
2 22	1264.14	505.54	2 50057
2 23	1259.72	580.11	2 17152
2 13	1250.16	524.69	2.38266
2 13	1242.41	521.44	2.38266
2 13	1231.76	516.97	2.38266
2 13	1223.12	513.34	2.38266
1123	1217.08	929.40	1.30952
2 13	1216.66	510.63	2.38266
2 11	1200.08	426.13	2 81625
2 23	1199.60	552.42	2.17152
2 13	1195.26	501.65	2.38266
1123	1188.08	907.26	1.30952
1123	1178.23	899.74	1.30952
2 13	1174.81	493.06	2.38266
1113	1173.21	822.11	1.42706
1113	1173.21	822.11	1.42706
2 13	1171.70	491.76	2.38266
2 13	1171.70	491.76	2.38266
2 11	1168.11	414.78	2 81625
2 23	1167.86	537.81	2 17152
2 11	1159.02	486.44	2.38266

LIST OF THE TEST/FU2 WEIGHTS GT 1000

CELL3	ISWT2	RAWWT	NRADIS12
2 13	1157 02	485.599	2 38266
2 23	1151 70	530.366	2 17152
2 23	1151 70	530.366	2 17152
1112	1151 39	720.433	1 59819
1113	1145 14	802.445	1 42706
2 13	1144 26	480.243	2 38266
2 23	1139 37	524.690	2 17152
2 13	1128 02	473.430	2 38266
2 13	1123 06	471.346	2 38266
2 13	1122 91	471.283	2 38266
2 23	1120 25	515.882	2 17152
2 13	1116 95	468.781	2 38266
1112	1114 87	697.584	1 59819
2 11	1114 11	395.602	2 81625
1923	1107 19	699.587	1 58264
2 13	1106 68	464.472	2 38266
2 23	1101 03	507.032	2 17152
1123	1097 48	838.080	1 30952
2 23	1082 03	498.284	2 17152
1112	1080 30	675.951	1 59819
2 13	1077 13	452.068	2 38266
1123	1076 99	822.432	1 30952
1123	1076 58	822.115	1 30952
1123	1076 58	822.115	1 30952
2 13	1073 71	450.634	2 38266
2 13	1073 02	450.344	2 38266
2 23	1071 45	493.412	2 17152
2 23	1070 70	493.065	2 17152
2 13	1068 27	448.353	2 38266
2 23	1067 87	491.760	2 17152
1913	1065 43	663.893	1 60483
2 23	1065 05	490.465	2 17152
2 13	1063 33	446.278	2 38266
2 13	1063 33	446.278	2 38266
2 13	1058 39	444.203	2 38266
2 13	1057 64	443.889	2 38266
1123	1050 82	802.445	1 30952
1923	1050 70	663.893	1 58264
2 23	1016 05	481.715	2 17152
2 13	1044 94	438.561	2 38266
2 23	1042 86	480.243	2 17152
2 13	1038 92	436.031	2 38266
2 13	1038 92	436.031	2 38266
2 11	1038 84	368.873	2 81625
1112	1037 26	649.025	1 59819
2 13	1035 72	434.690	2 38266
1112	1035 26	647.770	1 59819
2 23	1035 11	476.675	2 17152
1113	1031 91	723.102	1 42706
2 12	1030 28	330.077	3 12132
2 23	1028 71	473.727	2 17152
1112	1028 61	643.612	1 59819
2 23	1027 05	472.963	2 17152
2 13	1025 62	430.450	2 38266
2 23	1023 02	471.108	2 17152

LIST OF THE TEST/FH2 WEIGHTS GT 1000

CELL3	TS1W12	RAWWT	NRADTS12
1122	1018.31	733.273	1.38872
2 23	1017.91	468.755	2.17152
1923	1014.93	641.288	1.58264
2 11	1014.73	360.313	2.81625
1113	1009.09	707.111	1.42706
1113	1009.09	707.111	1.42706
1123	1008.60	770.207	1.30952
1121	1008.00	701.817	1.43627
2 13	1005.38	421.955	2.38266
1113	1002.84	702.733	1.42706
1113	1002.84	702.733	1.42706
1113	1002.81	702.733	1.42706
1113	1002.81	702.733	1.42706

CELL2	IRW12	RAWWT	NRADTRN2
2 210	3913 64	1496.00	2 61607
11132	3700 14	3098.14	1 19431
11130	3549 89	2627.14	1 35124
2 210	3484.91	1332.11	2 61607
2 230	3474 27	1936.47	1 79410
2 130	3425 41	1734.04	1 97539
2 130	3200 88	1620.38	1 97539
2 230	3139 65	1749 99	1 79410
2 130	3090 28	1564.39	1 97539
2 230	2997 66	1670 84	1 79410
2 130	2921 20	1478 79	1 97539
2 230	2916 47	1625 58	1 79410
2 230	2872 18	1600 90	1 79410
2 130	2866 88	1451 29	1 97539
2 130	2825 01	1430 10	1 97539
2 130	2802 70	1418 81	1 97539
11130	2762 04	2044 09	1 35124
2 220	2749 40	1851 81	1 48471
11230	2742 28	2070 01	1 32477
2 230	2707 32	1509 01	1 79410
2 130	2705 79	1369 75	1 97539
11230	2676 06	2020 02	1 32477
11132	2649 68	2218 59	1 19431
2 130	2644 86	1338 90	1 97539
2 230	2585 08	1440 88	1 79410
2 130	2529 03	1280 27	1 97539
2 110	2523 67	1459 36	1 72930
2 130	2513 40	1272 35	1 97539
2 230	2504 59	1396 01	1 79410
2 130	2496 37	1263 73	1 97539
2 230	2492 69	1389 38	1 79410
11134	2477 64	2218 59	1 11676
2 110	2465 29	1425 60	1 72930
11234	2461 32	2239 24	1 09918
11130	2448 20	1811 82	1 35124
2 230	2425 58	1351 97	1 79410
2 130	2416 04	1223 07	1 97539
2 130	2400 30	1215 10	1 97539
2 130	2384 38	1207 04	1 97539
2 130	2376 85	1203 23	1 97539
11130	2360 59	1746 99	1 35124
2 130	2351 70	1190 49	1 97539
11130	2333 20	1726 72	1 35124
11232	2331 54	2062 41	1 13049
2 130	2310 90	1169 84	1 97539
2 130	2299 42	1164 03	1 97539
11230	2275 09	1717 35	1 32477
2 230	2255 00	1256 90	1 79410
11130	2220 68	1613 45	1 35124
2 220	2206 26	1485 99	1 48471
11220	2194 84	1552 01	1 41419
2 230	2162 04	1205 08	1 79410
2 130	2157 54	1092 21	1 97539
11230	2149 06	1622 22	1 32477
2 220	2127 52	1432 95	1 48471
2 230	2118 45	1180 78	1 79410

CELL 2	IRW12	RAWWT	NRADIRN2
11133	2117 14	1835.63	1 15336
11133	2115 41	1834.13	1 15336
11133	2089 69	1811 82	1 15336
2 120	2084 52	1706 96	1 22119
2 130	2074 95	1050 40	1 97539
11131	2047 39	1686 27	1 21415
2 120	2042 53	1672 58	1 22119
11131	2035 52	1676 50	1 21415
19133	2020 01	1639 27	1 23226
19130	2015 34	1619 65	1 24431
11232	2003 87	1772 57	1 13019
11231	1988 48	1478 79	1 35124
11234	1988 25	1663 91	1 19506
2 110	1978 15	1808 85	1 09918
2 230	1974 24	1143 90	1 72930
11230	1960 68	1100 41	1 79410
11220	1916 35	1480 02	1 32477
11230	1905 03	1355 09	1 41419
19234	1903 55	1438 01	1 32477
11230	1879 59	1639 27	1 16122
2 120	1877 29	1418 81	1 32477
11233	1875 24	1537 26	1 22119
2 120	1874 94	1709 75	1 09679
2 120	1874 94	1535 34	1 22119
2 233	1867 11	1535 34	1 22119
11110	1848 34	1342 31	1 39097
11133	1839 34	1516 70	1 21866
11110	1834 11	1594 77	1 15336
11230	1831 70	1505 03	1 21866
2 220	1826 79	1382 66	1 32477
11230	1815 04	1230 40	1 48471
11134	1806 81	1370 08	1 32477
11132	1760 87	1617 90	1 11676
11133	1740 69	1474 38	1 19431
2 230	1735 95	1509 24	1 15336
11233	1722 05	967 59	1 79410
11134	1717 37	1570 07	1 09679
11130	1708 51	1537 81	1 11676
11233	1691 99	1264 40	1 35124
2 230	1689 92	1542 67	1 09679
13222	1665 57	941 93	1 79410
2 110	1662 04	436 38	3 81683
11230	1657 51	961 11	1 72930
11133	1656 28	1251 17	1 32477
11131	1644 87	1436 05	1 15336
2 230	1633 94	1354 72	1 21415
11230	1631 63	910 73	1 79410
11133	1629 50	1231 63	1 32477
11131	1627 42	1412 82	1 15336
2 120	1618 63	1340 38	1 21415
11111	1615 38	1325 46	1 22119
2 120	1615 19	1342 31	1 20343
11230	1613 34	1322 64	1 22119
11130	1611 50	1217 83	1 32477
2 220	1604 96	1192 61	1 35124
		1080 99	1 48471

CELL2	TRWT2	RAWWT	NRADTRN2
11231	1601.83	1340.38	1.19506
2 230	1587.48	884.83	1.79410
11230	1577.08	1190.46	1.32477
2 120	1572.11	1287.36	1.22119
11110	1562.08	1281.80	1.21866
11130	1556.46	1151.88	1.35124
11230	1545.91	1166.93	1.32477
11230	1542.40	1164.28	1.32477
2 130	1542.17	780.69	1.97539
2 230	1539.89	858.31	1.79410
11110	1515.92	1243.92	1.21866
11211	1507.12	1238.08	1.21730
11231	1506.04	1260.22	1.19506
2 230	1492.39	831.83	1.79410
11110	1490.73	1223.25	1.21866
11132	1485.02	1243.41	1.19431
11233	1480.24	1349.60	1.09679
11234	1480.03	1346.49	1.09918
11132	1477.92	1237.47	1.19431
11134	1474.64	1320.46	1.11676
11132	1463.09	1225.05	1.19431
11132	1460.17	1222.61	1.19431
11234	1456.08	1324.70	1.09918
11130	1455.67	1077.29	1.35124
11133	1453.48	1260.22	1.15336
11210	1449.63	1146.76	1.26410
11134	1449.11	1237.59	1.11676
11232	1430.93	1265.76	1.13049
11230	1427.15	1077.29	1.32477
11234	1424.56	1296.02	1.09918
11221	1407.25	1260.22	1.11667
11130	1406.41	1040.83	1.35124
11130	1405.47	1040.14	1.35124
11234	1394.34	1268.53	1.09918
2 110	1387.78	802.51	1.72930
11233	1382.20	1260.22	1.09679
2 120	1380.17	1130.19	1.22119
11230	1368.38	1032.92	1.32477
11134	1362.81	1220.32	1.11676
11130	1353.80	1001.89	1.35124
11130	1350.46	999.43	1.35124
11223	1347.69	1146.35	1.17563
11234	1338.30	1217.54	1.09918
11133	1325.15	1148.95	1.15336
11233	1303.05	1188.06	1.09679
11232	1298.88	1148.95	1.13049
11230	1289.33	973.25	1.32477
11134	1280.57	1146.68	1.11676
11130	1271.86	941.26	1.35124
2 130	1266.80	641.29	1.97539
11233	1265.88	1154.16	1.09679
11134	1254.61	1123.43	1.11676
11222	1249.84	1146.35	1.09028
2 131	1243.49	875.67	1.42004
11234	1228.37	1117.53	1.09918
11130	1228.20	908.95	1.35124

CALL	IRW12	RAWWT	NRADIRP2
11234	1219 28	1109 27	1 09918
11233	1218 66	1111 11	1 09679
11230	1203 56	908 50	1 32477
11130	1200 71	888 60	1 35124
11210	1197 92	947 64	1 26410
2 120	1173 69	961 11	1 22119
2 230	1158 02	645 46	1 79310
13130	1141 62	436 38	2 61614
13130	1141 62	436 38	2 61614
13130	1141 62	436 38	2 61614
11130	1138 68	842 69	1 35124
11131	1128 44	929 40	1 21415
11130	1124 00	831 83	1 35124
19232	1114 38	641 29	1 73771
11132	1110 00	929 40	1 19431
11120	1102 09	758 68	1 45265
11132	1101 99	922 70	1 19431
2 220	1101 84	742 12	1 48471
11230	1089 11	822 11	1 32477
11234	1088 13	989 95	1 09918
2 130	1066 90	540 10	1 97539
2 231	1065 06	743 03	1 43341
11133	1046 40	907 26	1 15336
11221	1037 84	929 40	1 11667
11221	1037 84	929 40	1 11667
11233	1019 37	929 40	1 09679
11121	1015 63	823 66	1 23308
11120	1013 35	697 58	1 45265
11222	1013 31	929 40	1 09028
11231	1001 56	838 08	1 19506



