

**Survey of Income and Program
Participation (SIPP)
1991 Panel
Wave 8 Educational Financing/Enrollment
Topical Module Microdata File**

TECHNICAL DOCUMENTATION
SIPP-91-8T

SURVEY OF INCOME AND PROGRAM PARTICIPATION (SIPP)

1991 PANEL

**WAVE 8 EDUCATIONAL FINANCING/ENROLLMENT
TOPICAL MODULE MICRODATA FILE**

TECHNICAL DOCUMENTATION

Washington, D.C.

1994



U.S. DEPARTMENT OF COMMERCE

Ronald H. Brown, Secretary

David J. Barram, Deputy Secretary

Economic and Statistics Administration

**Everett M. Ehrlich, Under Secretary for
Economic Affairs**

**Bureau Of The Census
Harry A. Scarr, Acting Director**



BUREAU OF THE CENSUS

Dr. Harry A. Scarr, Acting Director
Jane A. Callen, Assistant Director for
Communications

DATA USER SERVICES DIVISION

Jane A. Callen, Acting Chief

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For additional information concerning the questionnaire content or subject matter, contact Judy Eargle (763-8578) in Housing and Household Economics Statistics Division, Bureau of the Census, Washington, D.C. 20233.

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ABSTRACT

*Survey of Income and Program Participation (SIPP) 1991 Panel Wave 8
Education Financing/Enrollment Topical Module Microdata File
[machine-readable data file] / conducted by the U.S. Bureau of the
Census. -Washington: The Bureau [producer and distributor], 1994.*

Type of File

Microdata; unit of observation is an individual.

Universe Description

The universe is the resident population of the United States, excluding persons living in institutions and military barracks.

Subject-Matter Description

The file contains data primarily from the topical module portion of the questionnaire. However, for purposes of matching persons to the core file, which was released separately, the beginning of the file contains identifying information as well as some basic demographic and social characteristics that are also contained in the core file. The identifying information includes sample unit, household address, and entry address identification. Demographic and social characteristics include age, sex, race (White; Black; American Indian, Eskimo, and Aleut; Asian or Pacific Islander; and Other), ethnic origin (23 categories including 7 Spanish origin categories), marital status, and education. Data in this topical module file include school enrollment and financing.

The sample consists of 4 rotation groups, each interviewed in a different month from June to September 1993. For each group the reference period for reporting labor force activity and income is the four calendar months preceding the interview month.

SIPP is a longitudinal survey where each sampled household and each descendent household is reinterviewed at 4-month intervals for 8 interviews or "waves." This file contains the results of the eighth interview. Unique codes are included on each record to allow linking together the same persons from the preceding and subsequent waves.

Geographic Coverage

United States. Codes are included for 41 individual States and the District of Columbia, although the sample was not designed to produce State estimates. Areas in the SIPP sample in nine other States are identified in groups for confidentiality reasons. The file identifies a subsample of metropolitan residents, along with codes for selected metropolitan statistical areas (MSA's) and consolidated metropolitan statistical areas (CMSA's).

Technical Description

File Structure: Each logical record for a sampled person includes information on the household and family of which the person was a part during each month of the reference period, as well as characteristics of the person and each source of income received during the period.

File Size: 36,279 logical records; 180 character logical record length.

File Sort Sequence of Sample Units: Sampling unit identification number by entry address ID and person number within sampling unit.

Reference Materials

Interviewers' Manual (1985). Survey of Income and Program Participation. U.S. Department of Commerce, Bureau of the Census. The manual is available from Data User Services Division, Customer Services, Bureau of the Census, Washington, D.C. 20233.

Survey of Income and Program Participation (SIPP) 1991 Panel, Wave 8 Topical Module Microdata File Technical Documentation. The documentation includes this abstract, the data dictionary, an index to the data dictionary, relevant code lists, a questionnaire facsimile, and general information relative to SIPP. One copy of the technical documentation accompanies each file order but also may be purchased separately from Data User Services Division, Customer Services, Bureau of the Census, Washington, D.C. 20233.

Survey of Income and Program Participation Users' Guide. The Users' Guide contains a general overview of the file as well as chapters on survey design and content, structure and use of cross-sectional files, linking waves and reliability of the data. A single copy accompanies each technical documentation or tape order. Additional copies are available for \$15 each from Customer Services, Data User Services Division, Bureau of the Census, Washington, D.C. 20233.

Related Printed Reports

Related printed reports include working papers, compilations of papers presented at annual meetings of the American Statistical Association, articles appearing in the *Journal of Economic and Social Measurement*, and reports in the P-70 series of the Current Population Reports. See the Users' Guide that accompanies the documentation for ordering information.

Related Machine-Readable Data Files

SIPP files from all Waves of the 1984 through 1991 Panels as well as Waves 1 through 5 of the 1992 Panel and 1993 Panel Wave 1-3 are available from Customer Services, Data User Services Division, Bureau of the Census, Washington, DC 20233. An order form is on the following page for your convenience.

File Availability

Survey of Income and Program Participation (SIPP) 1991 Panel, Wave 8 Educational Financing/Enrollment Topical Module Microdata File is available on computer tape at 6250 bpi, ASCII or EBCDIC, and standard ANSI labeling. The file can also be made available on IBM 3480 compatible tape cartridge or CD-R (compact disc-recordable) in ASCII for the same price as the file on tape. A machine-readable dictionary is contained at the end of each file. This dictionary is also available separately on one tape reel or cartridge. When ordering, please use the order form on the following page.

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FILE INFORMATION

Matching Topical Module File with Core File

Since the core and topical module data are released as separate files it may be necessary to match the two files. The two files contain the following information for linking purposes.

Sample Unit ID (scrambled)	Race
Household Address ID	Sex
Item36B	MS(5)
Entry Address ID	PNSP(5)
Person Number	PNPT(5)
PP-Intvw	Higrade
Finalwgt(5)	Grd-Cmpl
RRP(5)	Ethnicity
Age(5)	

Geographic Coverage

State codes are shown except for nine States which are identified in three groups. A subsample of metropolitan residents is identified along with codes for selected metropolitan statistical areas (MSA's) and consolidated metropolitan statistical areas (CMSA's). **The sample was not designed to produce State or MSA/CMSA level estimates.** State codes are primarily useful in relating a respondent's reciprocity of benefits to thresholds which may vary from State to State. MSA/CMSA codes may be used in relating respondent characteristics with contextual variables.

Identification Number System

The SIPP Identification scheme is designed to uniquely identify individuals in each wave, provide a means of linking the same individuals over time, and group individuals into households and families over time.

The various components of the identification scheme are listed below:

Sample Unit Identification Number
Address ID
Entry Address ID
Person Number

The sample unit identification number was created by scrambling together the PSU, segment, and serial numbers used for Census Bureau administrative purposes. This identifier is constructed the same way on each wave regardless of moves, to enable matching from wave to wave.

The two-digit address ID code identifies each household associated with the same sample unit identification number. The first digit of the address ID code indicates the wave in which that address was first assigned for interview. The second digit sequentially numbers multiple households that have the same serial number. The address ID code is 11 for all sample addresses that are the same as in Wave 1. As SIPP sample persons move to new addresses, new address ID codes are assigned. Any new address to which sample unit members moved during Wave 4 is numbered in the 40's.

The person ID is a five-digit number consisting of the two-digit entry address ID and a three-digit person number. Person numbers 101, 102, etc., are assigned in Wave 1; 201, 202, etc., are assigned to persons added to the roster in Wave 2, and so forth. This five-digit number is not changed or updated, regardless of moves.

The sampling unit serial number and address ID code uniquely identifies each household in any given wave. The sampling unit serial number can link all households in subsequent waves back to the original Wave 1 household.

Topcoding of Income Variables

To protect against the possibility that a user might recognize the identity of a SIPP respondent with very high income, income from every source is "topcoded" so that no individual income amounts above \$100,000 are revealed. While the data dictionary indicates a topcode of \$33,332 for monthly income, this topcode will rarely be used. In most cases the monthly income is shown as an individual dollar amount of \$8,333, with \$8,333 actually representing "\$8,333 or more." (the \$100,000 annual income topcode is \$8,333 multiplied by 12 months). Individual monthly amounts above \$8333 may occasionally be shown if the respondent's income varied considerably from month to month, as long as the average does not exceed \$8,333. For example, if a respondents' income from a single job were concentrated in only one of the four reference months, a figure as high as \$33,332 could be shown. (Income from interest or property have lower topcodes).

Summary income figures on the person, family, and household records are simple sums of the components shown on the file after topcoding, and are not independently topcoded. Thus, a person with high income from several sources (jobs, businesses, property) could have aggregate monthly income well over the topcode for each source. Families and households with a number of high income members could theoretically have aggregate income shown well over \$100,000, though well below the \$1.5 million shown as the highest allowable value in the data dictionary.

The user is cautioned against trying to make much use of the occasional monthly figures above \$8,333, except in calculating aggregates or observing patterns across the 4-month period for a single individual, family, or household. Those units with higher monthly amounts shown are a biased sample of high income units, more likely to include units with income from multiple sources than other units with equally high aggregate income which comes from a single source.

GLOSSARY OF SELECTED TERMS

Absent 1 or more weeks. Absent 1 or more weeks means absent without pay from a job or business. Persons were absent without pay in a month if they were 'with a job' during the entire month, but were not at work at that job during at least 1 full week (Sunday through Saturday) during the month, and did not receive wages or a salary for any time during that week. Reasons for an unpaid absence include vacation, illness, layoff, bad weather, labor disputes, and waiting to start a new job.

Family household. A family household is a household maintained by a family; any unrelated persons (unrelated subfamily members and/or secondary individuals) who may be residing there are included. The number of family households is equal to the number of families. The count of family household members differs from the count of family members, however, in that the family household members include all persons living in the household, whereas family members include only the householder and his/her relatives.

Family. A family is a group of two or more persons (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such persons (including related subfamily members) are considered members of one family.

Farm-nonfarm residence. The farm population refers to rural residents living on farms. Under this definition, a farm is any place in rural territory from which sales of crops, livestock, and other agricultural products amounted to \$1,000 or more during the previous 12-month period.

Full-time and part-time. The data on full- and part-time workers pertain to the number of hours a person usually worked per week during the weeks worked in the 4-month reference period of the survey. If the hours worked per week varied considerably, the respondent was asked to report an approximate average of the actual hours worked each week.

Persons 16 years old and over who reported usually working 35 or more hours each week during the weeks they worked are classified as 'full-time' workers; persons who reported that they usually worked fewer than 35 hours are classified as 'part-time' workers. The same definitions are used in the CPS.

Household. A household consists of all persons who occupy a housing unit. A house, an apartment or other group of rooms, or a single room is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters; that is, when the occupants do not live and eat with any other persons in the structure and there is either (1) direct access from the outside or through a common hall or (2) a kitchen or cooking equipment for the exclusive use of the occupants.

A household includes the related family members and all the unrelated persons, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit or a group of unrelated persons sharing a housing unit as partners is also counted as a household. The count of households excludes group quarters. Examples of group quarters include rooming and boarding houses, college dormitories, and convents and monasteries.

Householder. Survey procedures call for listing first the person (or one of the persons) in whose name the home is owned or rented. If the house is owned jointly by a married couple, either the husband or the wife may be listed first, thereby becoming the reference person, or householder, to whom the relationship of the other household members is recorded. One person in each household is designated as the 'householder.' The number of householders, therefore, is equal to the number of households.

Layoff. In general, the word 'layoff' means release from a job because of slack work, material shortages, inventory taking, plant remodeling, installation of machinery, or other similar reasons. For this survey, persons were also on 'layoff' who did not have job but who responded that they has spent at least 1 week on layoff from a job and that they were available to accept a job.

In addition, persons were on 'layoff' in a given month if they were 16 years old or over and (a) were 'with a job' but 'absent without pay' from that job for at least 1 full week during that month, and (b) they responded that their main reason for being absent from their job or business was 'layoff.' 'On layoff' also includes a small number of persons who responded that they were waiting to report to a new wage and salary job that was to begin within 30 days. In other words, persons waiting to begin a new job are classified together with persons waiting to return to a job from which they have been laid off.

Looking for work. Persons who 'looked for work' in a given month are those who were 16 years old or over and (a) were without a job during at least 1 week during the month, (b) tried to get work or establish a business or profession in that week, and (c) were available to accept a job. Examples of jobseeking activities are (1) registering at a public or private employment office, (2) meeting with prospective employers, (3) investigating possibilities for starting a professional practice or opening a business, (4) placing or answering advertisements, (5) writing letters of application, and (6) being on a professional register.

The CPS uses a similar concept of 'looking for work.' The term 'unemployed' as used in the CPS includes persons who were looking for work in the reference week and those who were 'on layoff' or 'waiting to begin a new job in 30 days.'

Low-Income Home Energy Assistance Program. Benefits from the Federally funded LIHEAP authorized by Title XXVI of the Omnibus Budget Reconciliation Act of 1981, or comparable assistance provided through State funded assistance programs, may be received in the form of direct payment to the household as reimbursement for heating or cooling expenses or paid directly to the fuel dealer or landlord.

Means-tested benefits. The term means-tested benefits refers to programs that require the income or assets (resources) of the individual or family be below specified guidelines in order to qualify for benefits. These programs provide cash and noncash assistance to the low-income population. The major sources of means-tested cash and noncash assistance are shown in Appendix B-2.

Medicaid. This term refers to the Federal-State program of medical assistance for low-income individuals and their families as provided for by Title XIX of the Social Security Act. The phrase 'Medicaid covered' refers to persons enrolled in the Medicaid program, regardless of whether they actually utilized any Medicaid covered health care services during the survey reference period.

Medicare. This term refers to the Federal Health Insurance Program for the Aged and Disabled as provided for by Title XVIII of the Social Security Act. The phrase 'Medicare covered' refers to persons enrolled in the Medicare program, regardless of whether they actually utilized any Medicare covered health care services during the survey reference period.

Monthly income. The monthly income estimates for households are based on the sum of the monthly income received by each household member age 15 years old or over.

Cash income includes all income received from any of the sources listed in Appendix B-1. Rebates, refunds, loans, and capital gain or loss amounts from the sale of assets, and interhousehold transfers of cash such as allowances are not included. Accrued interest on Individual Retirement Accounts, KEOUGH retirement plans, and U.S. Savings bonds are also excluded. This definition differs somewhat from that used in the annual income reports based on the March CPS Income supplement questionnaire. These data, published in the Consumer Income Series, P-60, are based only on income received in a regular or periodic manner and, therefore, exclude lump-sum or one-time payments such as inheritances and insurance settlements. The March CPS income definition, however, does exclude the same income sources excluded by SIPP.

The income amounts represent amounts actually received during the month, before deductions for income and payroll taxes, union dues, Part B Medicare premiums, etc.

The SIPP income definition includes three types of earnings: wages and salary, nonfarm self-employment, and farm self-employment. The definition of nonfarm self-employment and farm self-employment is not based on the net difference between gross receipts or sales and operating expenses, depreciation, etc. The monthly amounts for these income types are based on the salary or other income received from the business by the owner of the business or farm during the 4-month reference period.

The Bureau of Labor Statistics publishes quarterly averages for an earnings concept called 'usual weekly earnings' for employed wage and salary workers. The concept differs from the SIPP earnings concept since it is based on usual, not actual earnings, excludes the self-employed, and excludes earnings from secondary jobs.

While the income amounts from most sources are recorded monthly for the 4-month reference period, property income amounts, interest, dividends, rental income, etc., were recorded as totals for the 4-month period. These totals were distributed equally between months of the reference period for purposes of calculating monthly averages.

Nonfamily household. A nonfamily household is a household maintained by a person living alone or with nonrelatives only.

Persons of Spanish origin. Persons of Spanish origin were determined on the basis of a question that asked for self-identification of the person's origin or descent. Respondents were asked to select their origin (or the origin of some other household member) from a 'flash card' listing ethnic origins. Persons of Spanish origin, in particular, were those who indicated that their origin was Mexican, Puerto Rican, Cuban, Central or South American, or some other Spanish origin. It should be noted that persons of Spanish origin may be of any race.

Population coverage. The estimates are restricted to the civilian noninstitutional population of the 50 States and members of the Armed Forces living off post or with their families on post.

Race. The population is divided into groups on the basis of race: White; Black; American Indian, Eskimo, or Aleut; Asian or Pacific Islander; and 'other races.'

Special Supplemental Food Program for women, Infants, and Children (WIC). Benefits are received in the form of vouchers that are redeemed at retail stores for specific supplemental nutritious foods. Eligible low-income recipients are infants and children up to age five and pregnant, postpartum, and breastfeeding women.

Unemployment compensation. This term refers to cash benefits paid to unemployed workers through a State or local unemployment agency. These include all benefits paid under the Federal-State unemployment insurance program as established under the Social Security Act, as well as those benefits paid to State and local government employees, Federal civilian employees, and veterans.

With a Job. Persons are classified 'with a job' in a given month if they were 16 years old or over and, during the month, either (a) worked as paid employees or worked in their own business or profession or on their own farm or worked without pay in a family business or farm or (b) were temporarily absent from work either with or without pay. In general, the word 'job' implies an arrangement for regular work for pay where payment is in cash wages or salaries, at piece rates, in tips, by commission, or in kind (meals, living quarters, supplies received). 'Job' also includes self-employment at a business, professional practice, or farm. A business is defined as an activity which involves the use of machinery or equipment in which money has been invested or an activity requiring an office or 'place of business' or an activity which requires advertising; payment may be in the form of profits or fees.

The Current Population Survey (CPS), the official source of labor force statistics for the Nation, uses the same definition for a job or business. The term 'with a job,' however, should not be confused with the term 'employed' as used in the CPS. 'With a job' includes those who were temporarily absent from a job because of layoff and those waiting to begin a new job in 30 days; in the CPS these persons are not considered 'employed.' See 'Worked each week' below.

With labor force activity. The term 'with labor force activity' includes all persons with a job (as defined above) and those looking for work or on layoff from a job for at least 1 week during a given month. Conversely, those persons 'with no labor force activity' had no job, were not on layoff from a job and made no effort to find a job during the month.

Work disability. Persons were classified as having a work disability if they were identified by the respondent as having a physical, mental, or other health condition that limits the kind or amount of work they can do.

Worked each week. Persons 'worked each week' in a month if, for the entire month, they were 'with a job' and not 'absent without pay' from the job. In other words, a person worked each week in any month when they were (a) on the job the entire month, or (b) they received wages or a salary for all weeks in the month, whether they were on the job or not. Persons also worked each week if they were self-employed and spent time during each week of the month at or on behalf of the business or farm they owned, as long as they received or expected to receive profit or fees for their work.

In the CPS, the concept at 'work' includes those persons who spent at least 1 hour during the reference week at their job or business. In the CPS, however, 'at work' does not include persons who were temporarily absent from their jobs during the entire reference week on paid vacation, sick leave, etc. In SIPP, 'worked each week' does include persons on paid absences.

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SIPP 1991 WAVE 8 TOPICAL MODULE

<u>Mnemonic</u>	<u>Item</u>	<u>Position</u>
TM9666	Fellowship or Scholarship, Amount Received From.....	140
TM9668	Tuition Reduction Educational Assistance.....	145
TM9670	Tuition Reduction, Amount Received From	146
TM9672	Educational Assistance, Other Type of	150
TM9674	Educational Assistance From Other Source-Amount.....	151
TMETCNT	Number of Educational Assistance Sources.....	156
TMTEDFIN	Educational Assistance, Total Amount of.....	176
WAVE	Wave Number Within Panel	65

HOW TO USE THE DATA DICTIONARY

The Data Dictionary describes the contents and record layout of the public-use computer tape file. The first line of each data item description gives the data name, size of the data field, and the begin position of the field.

The next few lines contain descriptive text and any applicable notes. Categorical value codes and labels are given where needed. Comment notes marked by an (*) are provided throughout. Comments should be removed from the machine-readable version of the data dictionary before using it to help access the data file.

Data. Alphabetic, numeric, and the special character (-). No other special characters are used. It may be a mnemonic such as "STATE" or "SE1-OCC", or a sequential identifier such as "SC1176" or "WS-IMP01". Data item names are unique throughout the entire file.

Size. Numeric. The size of a data item is given in characters. Indication of implied decimal places is provided in notes.

Begin. Numeric. Contains the location in the data record of the first character position of the data item field.

The first line of each data item description begins with the character "D" (left-justified, two characters). The "D" flag indicates lines in the data dictionary containing the name, size, relative begin and begin position of each data item. This information (in machine-readable form) can be used to help access the data file. The line beginning with the character "U" describes the universe for that item. Lines containing categorical value codes and labels follow next and begin with the character "V". The special character (.) denotes the start of the value labels. Two examples of data item descriptions follow:

```
D SC1218   1 2805
  What was the main reason ... could
  not take a job during those weeks
U Persons 15 years old or older
V   0 .Not in universe
V   1 .Already had a job
V   2 .Temporary illness
V   3 .School
V   4 .Other
```

```
D RR3064   2 3760
  Railroad retirement sends out two types
  of checks; which color check does ...
  receive.
U Persons age 15 years or older receiving
  railroad retirement
V  -1 .DK
V   00 .Not in universe
V   01 .Blue
V   02 .Buff
V   03 .Direct deposit
V   04 .Other
```


SIPP 1991 WAVE 8 EDUCATIONAL FINANCING/ ENROLLMENT TOPICAL MODULE DATA DICTIONARY

DATA SIZE BEGIN

D SUSEQNUM 5 1
Sequence number of sample unit
Primary sort key

D ID 9 6
Sample unit identifier
This identifier is created by scrambling
together the PSU, segment and serial of
the original sample address. It may be
used in matching sample units from
different waves

D ROTATION 1 15
Rotation

D STATE 2 16
FIPS state code from the MST/GRIN file

V	01	.Alabama
V	04	.Arizona
V	05	.Arkansas
V	06	.California
V	08	.Colorado
V	09	.Connecticut
V	10	.Delaware
V	11	.District of Columbia
V	12	.Florida
V	13	.Georgia
V	15	.Hawaii
V	17	.Illinois
V	18	.Indiana
V	20	.Kansas
V	21	.Kentucky
V	22	.Louisiana
V	24	.Maryland
V	25	.Massachusetts
V	26	.Michigan
V	27	.Minnesota
V	28	.Mississippi
V	29	.Missouri
V	31	.Nebraska
V	32	.Nevada
V	33	.New Hampshire
V	34	.New Jersey
V	35	.New Mexico
V	36	.New York
V	37	.North Carolina
V	39	.Ohio
V	40	.Oklahoma
V	41	.Oregon
V	42	.Pennsylvania
V	44	.Rhode Island
V	45	.South Carolina
V	47	.Tennessee
V	48	.Texas
V	49	.Utah
V	51	.Virginia
V	53	.Washington
V	54	.West Virginia
V	55	.Wisconsin
V	61	.Maine,Vermont
V	62	.Iowa,North Dakota,South Dakota
V	63	.Alaska,Idaho,Montana,Wyoming

D PINX 2 18
Person index from core

DATA SIZE BEGIN

D ADDID 2 20
Address ID - This field
differentiates households within
the same PSU, segment and serial,
that is, households which originate
out of an original sample household
U All households

D ITEM368 2 22
Control card item 368 - Interview status
code
U All households

V	01	.Interviewed
		Type A Noninterview
V	02	.No one home
V	03	.Temporarily absent
V	04	.Refused
V	05	.Unable to locate
V	06	.Other Type A
		Type B Noninterview (Wave 1)
V	09	.Vacant
V	10	.Occupied by persons with URE
V	11	.Unfit or to be demolished
V	12	.Under construction, not ready
V	13	.Converted to temporary business
		.or storage
V	14	.Unoccupied site for mobile home,
		.trailer, or tent
V	15	.Permit granted, construction not
		.started
V	16	.Other Type B
		Type B Noninterview (Wave 2+)
V	16	.Entire HH institutionalized
		.or temporarily ineligible
		Type C Noninterview (Wave 1)
V	17	.Demolished
V	18	.House or trailer moved
V	19	.Converted to permanent business
		.or storage
V	20	.Merged
V	21	.Condemned
V	22	.Other Type C
		Type C Noninterview (Wave 2+)
V	22	.Deleted (sample adjustment,
		.error)
V	23	.Entire household deceased, moved
		.out of country, or living in
		.armed forces barracks
		Type D Noninterview (Wave 2+)
V	24	.Moved, address unknown
V	25	.Moved within country beyond
		.limit
V	26	.All sample persons relisted on
		.new control card(s)
V	28	.Merged MHLDS across panels

D INTVW 1 24
Person's interview status
U All persons, including children
V 0 .Not applicable (children
 .under 15)
V 1 .Interview (self)
V 2 .Interview (proxy)
V 3 .Noninterview - Type 2 refusal
V 4 .Noninterview - Type 2 other

SIPP 1991 WAVE 8 TOPICAL MODULE

DATA	SIZE	BEGIN
D PP-MIS	5	25
Monthly person's interview status		
U All persons, including children		
V	1	.Interview
V	2	.Non-interview
D ENTRY	2	30
Edited entry address ID		
Address of the household that this person belonged to at the time this person first became part of the sample		
U All persons, including children		
D PNUM	3	32
Edited person number		
U All persons, including children		
D FINALWGT	12	35
'STAGE1WT' * second stage factor.		
U All persons, including children		
D RRP	1	47
Edited relationship to reference person		
U All persons, including children		
V	0	.Not a sample person in this month
V	1	.Household reference person, living with relatives
V	2	.Household reference person living alone or with only non-relatives (primary individual)
V	3	.Spouse of household reference person
V	4	.Child of household reference person
V	5	.Other relative of household reference person
V	6	.Non-relative of household reference person but related to others in the household - member of an unrelated sub (secondary) family
V	7	.Non-relative of household reference person and not related to anyone else in the household (secondary individual)
D AGE	3	48
Edited and imputed age as of last birthday.		
U All persons, including children		
V	000	.Less than 1 full year
V	001	.1 year etc.
D SEX	1	51
Sex of this person		
Edited and imputed		
U All persons, including children		
V	1	.Male
V	2	.Female
D RACE	1	52
Race of this person		
Edited and imputed		
U All persons, including children		
V	1	.White
V	2	.Black
V	3	.American Indian, Eskimo or Aleut
V	4	.Asian or Pacific Islander

DATA	SIZE	BEGIN
D MS	1	53
Marital status		
If a person's marital status changed during any month, the marital status shown is the status maintained for the greatest part of the month - edited and imputed		
U Persons 15 years old or older		
V	0	.Not a sample person in this month
V	1	.Married, spouse present
V	2	.Married, spouse absent
V	3	.Widowed
V	4	.Divorced
V	5	.Separated
V	6	.Never married
D PNSP	3	54
Person number of spouse		
U Persons 15 years old or older		
V	000	.Not a sample person in this month
V	999	.Not applicable
D PNPT	3	57
Person number of parent		
U Persons 15 years old or older		
V	000	.Not a sample person in this month
V	999	.Not applicable
D MIGRADE	2	60
What is the highest grade or year of regular school this person attended ?		
U Persons 15 years old or older		
V	00	.Not applicable if under 15, did not attend or attended only kindergarten
V	01-08	.Elementary
V	09-12	.High school
V	21-26	.College
D GRD-CMPL	1	62
Did he/she complete that grade		
U Persons 15 years old or older		
V	0	.Not applicable
V	1	.Yes
V	2	.No
D ETHNICITY	2	63
Ethnic origin		
U All persons, including children		
V	01	.German
V	02	.English
V	03	.Irish
V	04	.French
V	05	.Italian
V	06	.Scottish
V	07	.Polish
V	08	.Dutch
V	09	.Swedish
V	10	.Norwegian
V	11	.Russian
V	12	.Ukrainian
V	13	.Welsh
V	14	.Mexican-American
V	15	.Chicano
V	16	.Mexican
V	17	.Puerto Rican
V	18	.Cuban
V	19	.Central or South American

DATA	SIZE	BEGIN
V		.(Spanish speaking)
V	20	.Other Spanish
V	21	.Afro-American (Black or Negro)
V	30	.Another group not listed
V	39	.Don't know
D WAVE	1	65
		Wave of the panel
D FILLER	3	66
		Filler

* Part C - Education and Training *		

D TM9610	1	69
		Was enrolled in school anytime during the past year? (Include any regular school, such as elementary, high school, or college, or any vocational, technical or business school.)
U All persons		
V	0	.Not applicable
V	1	.Yes
V	2	.No - End of interview
D TM9612	2	70
		At what level or grade was... enrolled (If enrolled at more than one level in the past year, check level in which greatest amount of time was spent.)
U All persons enrolled in school		
V	00	.Not applicable
V	01	.Elementary grades 1-8
V	02	.High school grades 9-12
V	03	.College year 1
V	04	.College year 2
V	05	.College year 3
V	06	.College year 4
V	07	.College year 5
V	08	.College year 6+
V	09	.Vocational school
V	10	.Technical school
V	11	.Business school
V	12	.Other or DK
D TM9614	1	72
		Check item T37
		Was ... enrolled in elementary school or high school?
U All persons enrolled in school		
V	0	.Not applicable
V	1	.Yes
V	2	.No - skip to TM9618
D TM9616	1	73
		Was ... enrolled in a public school?
U Persons enrolled in elementary or high school		
V	0	.Not applicable
V	1	.Yes - End of interview
V	2	.No
D TM9618	5	74
		During the past year what was the total cost of ...'s tuition and fees?
U Persons enrolled in other than public school		

DATA	SIZE	BEGIN
V	00000	.Not applicable
V	1-03999	.Dollars in school costs
V	04500	\$.4000 - 4999
V	05500	\$.5000 - 5999
V	06500	\$.6000 - 6999
V	07000	\$.7000 +
D TM9620	4	79
		What was the total cost of ...'s books and supplies?
U Persons enrolled in other than public schools		
V	-001	.DK
V	-003	.None
V	0000	.Not applicable
V	0001-9999	.Dollars in school costs
D TM9622	1	83
		Did ... live away from home while attending school?
U Persons enrolled in other than public school		
V	0	.Not applicable
V	1	.Yes
V	2	.No - skip to TM9626
D TM9624	5	84
		What was the total cost for room and board while away at school?
V	-0001	.DK
V	00000	.Not applicable
V	1-99999	.Dollars in school costs

* The next twenty-five fields *		
* (TM9626-TM9674) are possible responses *		
* to the question: *		
* *		
* Please look at this card and tell *		
* me if ... received any of these types *		
* of educational assistance during the *		
* past year *		
* and *		
* How much did ... receive? *		

D TM9626	2	89
		Any type of educational assistance received
U Persons enrolled in other than public school		
V	-3	.None - End of interview
V	00	.Not applicable
D TM9628	1	91
		The GI bill?
U Persons enrolled in other than public school who received educational assistance		
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9630	4	92
		Percent received from GI bill
U Persons enrolled in other than public school who received educational assistance from the GI bill		

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DATA	SIZE	BEGIN
D TM9632	1	96
Other veteran's educational assistance programs? (Include survivors and dependents, vocational rehabilitation and post-Vietnam veterans assistance.)		
U	Persons enrolled in other than public school who received educational assistance	
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9634	5	97
Percent received from veteran's programs		
U	Persons enrolled in other than public school who received educational assistance from veteran's programs	
D TM9636	1	102
College work study program?		
U	Persons enrolled in other than public school who received educational assistance	
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9638	4	103
Percent received from college work study program		
U	Persons enrolled in other than public school who received educational assistance from college work study program	
D TM9640	1	107
A Pell grant?		
U	Persons enrolled in other than public school and received educational assistance	
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9642	4	108
Percent received from Pell grant		
U	Persons enrolled in other than public school who received educational assistance from Pell grant	
D TM9644	1	112
A supplemental educational opportunity grant(SEOG)		
U	Persons enrolled in other than public school and received educational assistance	
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9646	4	113
Percent received from SEOG		
U	Persons enrolled in other than public school who received educational assistance from SEOG	

DATA	SIZE	BEGIN
D TM9648	1	117
A national direct student loan?		
U	Persons enrolled in other than public school who received educational assistance	
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9650	4	118
Percent received from a national direct student loan		
U	Persons enrolled in other than public school who received educational assistance from a national direct student loan	
D TM9652	1	122
A guaranteed student loan		
U	Persons enrolled in other than public school who received educational assistance	
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9654	5	123
Percent received from a guaranteed student loan		
U	Persons enrolled in other than public school who received educational assistance from a guaranteed student loan	
D TM9656	1	128
A JTPA training program		
U	Persons enrolled in other than public school who received educational assistance	
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9658	4	129
Percent received from JTPA		
U	Persons enrolled in other than public school who received educational assistance from JTPA	
D TM9660	1	133
Employer assistance		
U	Persons enrolled in other than public school who received educational assistance	
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9662	5	134
Percent of employer assistance		
U	Persons enrolled in other than public school who received educational assistance from employer	
D TM9664	1	139
A fellowship or scholarship?		
U	Persons enrolled in other than public school who received educational assistance from employer	
V	0	.Not marked as received
V		.or not applicable
V	1	.Received

DATA	SIZE	BEGIN
D TM9666	5	140
Percent of fellowship or scholarship		
U		Persons enrolled in other than public school who received fellowship or scholarship
D TM9668	1	145
A tuition reduction?		
U		Persons enrolled in other than public school who received educational assistance
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9670	4	146
Percent received from tuition reduction		
U		Persons enrolled in other than public school who received tuition reduction
D TM9672	1	150
Anything else (other than assistance from relatives and friends)?		
U		Persons enrolled in other than public school who received educational assistance
V	0	.Not marked as received
V		.or not applicable
V	1	.Received
D TM9674	5	151
Percent of educational assistance from other sources		
U		Persons enrolled in other than public school who received educational assistance from other sources
D TMETCNT	2	156
Number of items with data on this record		

* Part C - Imputation flags		

D IMP9612	1	158
Part C imputation flag #01		
Imputation flag for field TM9612		
V	0	.Not imputed
V	1	.Imputed
D IMP9616	1	159
Part C imputation flag #02		
Imputation flag for field TM9616		
V	0	.Not imputed
V	1	.Imputed
D IMP9618	1	160
Part C imputation flag #03		
Imputation flag for field TM9618		
V	0	.Not imputed
V	1	.Imputed
D IMP9620	1	161
Part C imputation flag #04		
Imputation flag for field TM9620		
V	0	.Not imputed
V	1	.Imputed

DATA	SIZE	BEGIN
D IMP9622	1	162
Part C imputation flag #05		
Imputation flag for field TM9622		
V	0	.Not imputed
V	1	.Imputed
D IMP9624	1	163
Part C imputation flag #06		
Imputation flag for field TM9624		
V	0	.Not imputed
V	1	.Imputed
D IMP9630	1	164
Part C imputation flag #07		
Imputation flag for field TM9630		
V	0	.Not imputed
V	1	.Imputed
D IMP9634	1	165
Part C imputation flag #08		
Imputation flag for field TM9634		
V	0	.Not imputed
V	1	.Imputed
D IMP9638	1	166
Part C imputation flag #09		
Imputation flag for field TM9638		
V	0	.Not imputed
V	1	.Imputed
D IMP9642	1	167
Part C imputation flag #10		
Imputation flag for field TM9642		
V	0	.Not imputed
V	1	.Imputed
D IMP9646	1	168
Part C imputation flag #11		
Imputation flag for field TM9646		
V	0	.Not imputed
V	1	.Imputed
D IMP9650	1	169
Part C imputation flag #12		
Imputation flag for field TM9650		
V	0	.Not imputed
V	1	.Imputed
D IMP9654	1	170
Part C imputation flag #13		
Imputation flag for field TM9654		
V	0	.Not imputed
V	1	.Imputed
D IMP9658	1	171
Part C imputation flag #14		
Imputation flag for field TM9658		
V	0	.Not imputed
V	1	.Imputed
D IMP9662	1	172
Part C imputation flag #15		
Imputation flag for field TM9662		
V	0	.Not imputed
V	1	.Imputed
D IMP9666	1	173
Part C imputation flag #16		
Imputation flag for field TM9666		
V	0	.Not imputed
V	1	.Imputed

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DATA	SIZE	BEGIN
D IMP9670	1	174
Part C imputation flag #17		
Imputation flag for field TM9670		
V	0	.Not imputed
V	1	.Imputed
D IMP9674	1	175
Part C imputation flag #18		
Imputation flag for field TM9674		
V	0	.Not imputed
V	1	.Imputed

DATA	SIZE	BEGIN
D TMTEDFIN	5	176
Total amount of educational assistance during the past year.		
V	1-04000	.Amount of assistance
V	04500	.Amount from \$4100 - 4999
V	05500	.Amount from \$5000 - 5999
V	06500	.Amount from \$6000 - 6999
V	07500	.Amount from \$7000 - 7999
V	08500	.Amount from \$8000 - 8999
V	09500	.Amount from \$9000 - 9999
V	10500	.Amount from \$10000 - 10999
V	11000	.Amount from \$11000 +

**SOURCE AND ACCURACY STATEMENT FOR THE 1991
PUBLIC USE FILES FROM THE SURVEY OF
INCOME AND PROGRAM PARTICIPATION**

SOURCE OF DATA

The data were collected in the 1991 panel of the Survey of Income and Program Participation (SIPP). The SIPP universe is the noninstitutionalized resident population living in the United States. The population includes persons living in group quarters, such as dormitories, rooming houses, and religious group dwellings. Crew members of merchant vessels, Armed Forces personnel living in military barracks, and institutionalized persons, such as correctional facility inmates and nursing home residents, were not eligible to be in the survey. Also, United States citizens residing abroad were not eligible to be in the survey. Foreign visitors who work or attend school in this country and their families were eligible; all others were not eligible to be in the survey. With the exceptions noted above, persons who were at least 15 years of age at the time of the interview were eligible to be in the survey.

The 1991 panel of the SIPP sample is located in 230 Primary Sampling Units (PSUs) each consisting of a county or a group of contiguous counties. Within these PSUs, expected clusters of two living quarters (LQs) were systematically selected from lists of addresses prepared for the 1980 decennial census to form the bulk of the sample. To account for LQs built within each of the sample areas after the 1980 census, a sample containing clusters of four LQs was drawn of permits issued for construction of residential LQs up until shortly before the beginning of the panel.

In jurisdictions that don't issue building permits or have incomplete addresses, small land areas were sampled and expected clusters of four LQs within were listed by field personnel and then subsampled. In addition, sample LQs were selected from a supplemental frame that included LQs identified as missed in the 1980 census.

Approximately 19,300 living quarters were originally designated for the 1991 panel. For Wave 1 of the panel, interviews were obtained from occupants of about 14,300 of the 19,300 designated living quarters. Most of the remaining 5,000 living quarters in the panel were found to be vacant, demolished, converted to nonresidential use, or otherwise ineligible for the survey. However, approximately 1,300 of the 5,000 living quarters in the panel were not interviewed because the occupants refused to be interviewed, could not be found at home, were temporarily absent, or were otherwise unavailable. Thus, occupants of about 92 percent of all eligible living quarters participated in the first interview of the panel.

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For subsequent interviews, only original sample persons (those in Wave 1 sample households and interviewed in Wave 1) and persons living with them were eligible to be interviewed. Original sample persons were followed if they moved to a new address, unless the new address was more than 100 miles from a SIPP sample area. Then, telephone interviews were attempted.

Sample households within a given panel are divided into four subsamples of nearly equal size. These subsamples are called rotation groups 1, 2, 3, or 4 and one rotation group is interviewed each month. Each household in the sample was scheduled to be interviewed at 4 month intervals over a period of roughly 2 years beginning in February 1991. The reference period for the questions is the 4-month period preceding the interview month. In general, one cycle of four interviews covering the entire sample, using the same questionnaire, is called a wave.

A unique feature of the SIPP design is overlapping panels. The overlapping design allows panels to be combined and essentially doubles the sample sizes. Selected interviews for the 1991 panels can be combined with interviews from the 1990 panels. Information necessary to do this is included later in this statement.

The public use files include core and supplemental (topical module) data. Core questions are repeated at each interview over the life of the panel. Topical modules include questions which are asked only in certain waves. The 1991 and 1990 panel topical modules are given in tables 1 and 2 respectively.

Tables 3 and 4 indicate the reference months and interview months for the collection of data from each rotation group for the 1991 and 1990 panels respectively. For example, Wave 1 rotation group 2 of the 1991 panel was interviewed in February 1991 and data for the reference months October 1990 through January 1991 were collected.

Estimation. The estimation procedure used to derive SIPP person weights involved several stages of weight adjustments. In the first wave, each person received a base weight equal to the inverse of his/her probability of selection. For each subsequent interview, each person received a base weight that accounted for the following movers.

A noninterview factor was applied to the weight of every occupant of interviewed households to account for persons in noninterviewed occupied households which were eligible for the sample. (Individual nonresponse within partially interviewed households was treated with imputation. No special adjustment was made for noninterviews in group quarters.)

A factor was applied to each interviewed person's weight to account for the SIPP sample areas not having the same population distribution as the strata from which they were selected.

The Bureau has used complex techniques to adjust the weights for nonresponse. For a further explanation of the techniques used, see the Nonresponse Adjustment Methods for Demographic Surveys at the U.S. Bureau of the Census, November 1988, Working paper 8823, by R. Singh and R. Petroni. The success of these techniques in avoiding bias is unknown. An example of successfully avoiding bias can be found in "Current Nonresponse Research for the Survey of Income and Program Participation" (paper by Petroni, presented at the Second International Workshop on Household Survey Nonresponse, October 1991).

An additional stage of adjustment to persons' weights was performed to reduce the mean square errors of the survey estimates. This was accomplished by ratio adjusting the sample estimates to agree with monthly Current Population Survey (CPS) type estimates of the civilian (and some military) noninstitutional population of the United States by demographic characteristics including age, race, and sex as of the specified date. The CPS estimates by age, race, and sex were themselves brought into agreement with estimates from the 1980 decennial census which have been adjusted to reflect births, deaths, immigration, emigration, and changes in the Armed Forces since 1980. In addition, SIPP estimates were controlled to independent Hispanic controls and an adjustment was made so that husbands and wives within the same household were assigned equal weights. All of the above adjustments are implemented for each reference month and the interview month.

Use of Weights. Each household and each person within each household on each wave tape has five weights. Four of these weights are reference month specific and therefore can be used only to form reference month estimates. Reference month estimates can be averaged to form estimates of monthly averages over some period of time. For example, using the proper weights, one can estimate the monthly average number of households in a specified income range over November and December 1991. To estimate monthly averages of a given measure (e.g., total, mean) over a number of consecutive months, sum the monthly estimates and divide by the number of months.

The remaining weight is interview month specific. This weight can be used to form estimates that specifically refer to the interview month (e.g., total persons currently looking for work), as well as estimates referring to the time period including the interview month and all previous months (e.g., total persons who have ever served in the military).

To form an estimate for a particular month, use the reference month weight for the month of interest, summing over all persons or households with the characteristic of interest whose reference period includes the month of interest. Multiply the sum by a factor to account for the number of rotations contributing data

for the month. This factor equals four divided by the number of rotations contributing data for the month. For example, December 1990 data is only available from rotations 2, 3, and 4 for Wave 1 of the 1991 panel (See table 3), so a factor of 4/3 must be applied. To form an estimate for an interview month, use the procedure discussed above using the interview month weight provided on the file.

When estimates for months with four rotations worth of data are constructed from a wave file, factors greater than 1 must be applied. However, when core data from consecutive waves are used together, data from all four rotations may be available, in which case the factors are equal to 1.

These tapes contain no weight for characteristics that involve a persons's or household's status over two or more months (e.g., number of households with a 50 percent increase in income between November and December 1990).

Producing Estimates for Census Regions and States. The total estimate for a region is the sum of the state estimates in that region. Using this sample, estimates for individual states are subject to very high variance and are not recommended. The state codes on the file are primarily of use for linking respondent characteristics with appropriate contextual variables (e.g., state-specific welfare criteria) and for tabulating data by user-defined groupings of states.

Producing Estimates for the Metropolitan Population. For Washington, DC and 11 states, metropolitan or non-metropolitan residence is identified (variable H*-METRO). In 34 additional states, where the non-metropolitan population in the sample was small enough to present a disclosure risk, a fraction of the metropolitan sample was recoded to be indistinguishable from non-metropolitan cases (H*-METRO=2). In these states, therefore, the cases coded as metropolitan (H*-METRO=1) represent only a subsample of that population.

In producing state estimates for a metropolitan characteristic, multiply the individual, family, or household weights by the metropolitan inflation factor for that state, presented in table 5. (This inflation factor compensates for the subsampling of the metropolitan population and is 1.0 for the states with complete identification of the metropolitan population.)

The same procedure applies when creating estimates for particular identified MSA's or CMSA's--apply the factor appropriate to the state. For multi-state MSA's, use the factor appropriate to each state part. For example, to tabulate data for the Washington, DC-MD-VA MSA, apply the Virginia factor of 1.0521 to weights for residents of the Virginia part of the MSA; Maryland and DC

residents require no modification to the weights (i.e., their factors equal 1.0).

In producing regional or national estimates of the metropolitan population, it is also necessary to compensate for the fact that no metropolitan subsample is identified within two states (Mississippi and West Virginia) and one state-group (North Dakota - South Dakota - Iowa). Thus, factors in the right-hand column of table 5 should be used for regional and national estimates. The results of regional and national tabulations of the metropolitan population will be biased slightly. However, less than one-half of one percent of the metropolitan population is not represented.

Producing Estimates for the Non-Metropolitan Population. State, regional, and national estimates of the non-metropolitan population cannot be computed directly, except for Washington, DC and the 11 states where the factor for state tabulations in table 5 is 1.0. In all other states, the cases identified as not in the metropolitan subsample (METRO=2) are a mixture of non-metropolitan and metropolitan households. Only an indirect method of estimation is available: first compute an estimate for the total population, then subtract the estimates for the metropolitan population. The results of these tabulations will be slightly biased.

Combined Panel Estimates. Both the 1991 and 1990 panels provide data for October 1990-August 1992. Thus, estimates for these time periods may be obtained by combining the corresponding panels. However, since the Wave 1 questionnaire differs from the subsequent waves' questionnaire and since there were some procedural changes between the 1990 and 1991 panels, we recommend that estimates not be obtained by combining Wave 1 data of the 1991 panel with data from another panel. In this case, use the estimate obtained from either panel. Additionally, even for other waves, care should be taken when combining data from two panels since questionnaires for the two panels differ somewhat and since the length of time in sample for interviews from the two panels differ.

Combined panel estimates may be obtained either (1) by combining estimates derived separately for the two panels or (2) by first combining data from the two files and then producing an estimate.

1. Combining Separate Estimates

Corresponding estimates from two consecutive year panels can be combined to create joint estimates by using the formula

$$\hat{J} = W\hat{J}_1 + (1-W)\hat{J}_2 \quad (A)$$

\hat{J} = joint estimate (total, mean, proportion, etc);

\hat{J}_1 = estimate from the earlier panel;

\hat{J}_2 = estimate from the later panel;

W = weighting factor of the earlier panel.

To combine the 1990 and 1991 panels use a W value of 0.613 unless one of the panels contributes no information to the estimate. In that case, the panel contributing information receives a factor of 1. The other receives a factor of zero.

2. Combining Data from Separate Files

Start by first creating a file containing the data from the two panel files. Apply the weighting factor, W, to the weight of each person from the earlier panel and apply (1-W) to the weight of each person from the later panel. Estimates can then be produced using the same methodology as used to obtain estimates from a single panel.

Illustration for computing combined panel estimate.

Suppose SIPP estimates for Wave 5, 1990 panel show there were 441,000 households with monthly December income above \$6,000. Also, suppose SIPP estimates for Wave 2, 1991 panel show there were 435,000 households with monthly December income above \$6,000. Using formula (A), the joint level estimate is

$$\hat{J} = (0.613)(441,000) + (0.387)(435,000) = 439,000$$

ACCURACY OF ESTIMATES

SIPP estimates are based on a sample; they may differ somewhat from the figures that would have been obtained if a complete

census had been taken using the same questionnaire, instructions, and enumerators. There are two types of errors possible in an estimate based on a sample survey: nonsampling and sampling. We are able to provide estimates of the magnitude of SIPP sampling error, but this is not true of nonsampling error. Found in the next sections are descriptions of sources of SIPP nonsampling error, followed by a discussion of sampling error, its estimation, and its use in data analysis.

Nonsampling Variability. Nonsampling errors can be attributed to many sources, e.g., inability to obtain information about all cases in the sample; definitional difficulties; differences in the interpretation of questions; inability or unwillingness on the part of the respondents to provide correct information; inability to recall information, errors made in the following: collection such as in recording or coding the data, processing the data, estimating values for missing data; biases resulting from the differing recall periods caused by the interviewing pattern used; and undercoverage. Quality control and edit procedures were used to reduce errors made by respondents, coders and interviewers. More detailed discussions of the existence and control of nonsampling errors in the SIPP can be found in the SIPP Quality Profile.

Undercoverage in SIPP results from missed living quarters and missed persons within sample households. It is known that undercoverage varies with age, race, and sex. Generally, undercoverage is larger for males than for females and larger for Blacks than for nonBlacks. Ratio estimation to independent age-race-sex population controls partially corrects for the bias due to survey undercoverage. However, biases exist in the estimates to the extent that persons in missed households or missed persons in interviewed households have characteristics different from those of interviewed persons in the same age-race-sex group. Further, the independent population controls used have not been adjusted for undercoverage in the Census.

Comparability with Other Estimates. Caution should be exercised when comparing data from this report with data from other SIPP publications or with data from other surveys. The comparability problems are caused by such sources as the seasonal patterns for many characteristics, different nonsampling errors, and different concepts and procedures. Refer to the SIPP Quality Profile for known differences with data from other sources and further discussion.

Sampling Variability. Standard errors indicate the magnitude of the sampling error. They also partially measure the effect of some nonsampling errors in response and enumeration, but do not measure any systematic biases in the data. The standard errors for the most part measure the variations that occurred by chance because a sample rather than the entire population was surveyed.

USES AND COMPUTATION OF STANDARD ERRORS

Confidence Intervals. The sample estimate and its standard error enable one to construct confidence intervals, ranges that would include the average result of all possible samples with a known probability. For example, if all possible samples were selected, each of these being surveyed under essentially the same conditions and using the same sample design, and if an estimate and its standard error were calculated from each sample, then:

1. Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average result of all possible samples.
2. Approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the average result of all possible samples.
3. Approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average result of all possible samples.

The average estimate derived from all possible samples is or is not contained in any particular computed interval. However, for a particular sample, one can say with a specified confidence that the average estimate derived from all possible samples is included in the confidence interval.

Hypothesis Testing. Standard errors may also be used for hypothesis testing, a procedure for distinguishing between population characteristics using sample estimates. The most common types of hypotheses tested are 1) the population characteristics are identical versus 2) they are different. Tests may be performed at various levels of significance, where a level of significance is the probability of concluding that the characteristics are different when, in fact, they are identical.

To perform the most common test, compute the difference $X_A - X_B$, where X_A and X_B are sample estimates of the characteristics of interest. A later section explains how to derive an estimate of the standard error of the difference $X_A - X_B$. Let that standard error be s_{DIFF} . If $X_A - X_B$ is between -1.6 times s_{DIFF} and $+1.6$ times s_{DIFF} , no conclusion about the characteristics is justified at the 10 percent significance level. If, on the other hand, $X_A - X_B$ is smaller than -1.6 times s_{DIFF} or larger than $+1.6$ times s_{DIFF} , the observed difference is significant at the 10 percent level. In this event, it is commonly accepted practice to say that the characteristics are different. Of course, sometimes

this conclusion will be wrong. When the characteristics are, in fact, the same, there is a 10 percent chance of concluding that they are different.

Note that as more tests are performed, more erroneous significant differences will occur. For example, at the 10 percent significance level, if 100 independent hypothesis tests are performed in which there are no real differences, it is likely that about 10 erroneous differences will occur. Therefore, the significance of any single test should be interpreted cautiously.

Note Concerning Small Estimates and Small Differences. Because of the large standard errors involved, there is little chance that estimates will reveal useful information when computed on a base smaller than 200,000. Care must be taken in the interpretation of small differences since even a small amount of nonsampling error can cause a borderline difference to appear significant or not, thus distorting a seemingly valid hypothesis test.

Standard Error Parameters and Tables and Their Use. Most SIPP estimates have greater standard errors than those obtained through a simple random sample because clusters of living quarters are sampled for the SIPP. To derive standard errors that would be applicable to a wide variety of estimates and could be prepared at a moderate cost, a number of approximations were required. Estimates with similar standard error behavior were grouped together and two parameters (denoted "a" and "b") were developed to approximate the standard error behavior of each group of estimates. Because the actual standard error behavior was not identical for all estimates within a group, the standard errors computed from these parameters provide an indication of the order of magnitude of the standard error for any specific estimate. These "a" and "b" parameters vary by characteristic and by demographic subgroup to which the estimate applies. Table-6 provides base "a" and "b" parameters to be used for the 1991 panel estimates.

The factors provided in table 7 when multiplied by the base parameters of table 6 for a given subgroup and type of estimate give the "a" and "b" parameters for that subgroup and estimate type for the specified reference period. For example, the base "a" and "b" parameters for total number of households are -0.0001005 and 9,286, respectively. For Wave 1 the factor for October 1990 is 4 since only 1 rotation month of data is available. So, the "a" and "b" parameters for total household income in October 1990 based on Wave 1 are -0.0004020 and 37,144, respectively. Also for Wave 1, the factor for the first quarter of 1991 is 1.2222 since 9 rotation months of data are available (rotations 1 and 4 provide 3 rotations months each, while rotations 2 and 3 provide 1 and 2 rotation months, respectively). So the "a" and "b" parameters for total number of households in

the first quarter of 1991 are -0.0001228 and 11,349, respectively for Wave 1.

The "a" and "b" parameters may be used to calculate the standard error for estimated numbers and percentages. Because the actual standard error behavior was not identical for all estimates within a group, the standard errors computed from these parameters provide an indication of the order of magnitude of the standard error for any specific estimate. Methods for using these parameter for computation of approximate standard errors are given in the following sections.

For those users who wish further simplification, we have also provided general standard errors in tables 8 through 11. Note that these standard errors only apply when data from all four rotations are used and must be adjusted by a factor from table 6. The standard errors resulting from this simplified approach are less accurate. Methods for using these parameters and tables for computation of standard errors are given in the following sections.

For the 1990, 1991 combined panel parameters, multiply the parameters in table 6 by the appropriate factor from table 15. The factors provided in table 16 adjust parameters for the number of rotation months available for a given estimate. These factors, when multiplied by the combined panel parameters derived from table 6 for a given subgroup and type of estimate, give the "a" and "b" parameters for that subgroup and estimate type for the specified combined reference period.

Table 12 provides base "a" and "b" parameters for calculating 1991 topical module variances. Table 13 provides base "a" and "b" parameters for computing the 1990, 1991 combined panel topical module variances.

Procedures for calculating standard errors for the types of estimates most commonly used are described below. Note specifically that these procedures apply only to reference month estimates or averages of reference month estimates. Refer to the section "Use of Weights" for a more detailed discussion of the construction of estimates. Stratum codes and half sample codes are included on the tapes to enable the user to compute the variances directly by methods such as balanced repeated replications (BRR). William G. Cochran provides a list of references discussing the application of this technique. (See Sampling Techniques, 3rd Ed., New York: John Wiley and Sons, 1977, p. 321.)

Standard errors of estimated numbers. The approximate standard error, s_x , of an estimated number of persons, households, families, unrelated individuals and so forth, can be obtained in

two ways. Both apply when data from all four rotations are used to make the estimate. However, only the second method should be used when less than four rotations of data are available for the estimate. Note that neither method should be applied to dollar values.

The standard error may be obtained by the use of the formula

$$s_x = fs \quad (1)$$

where f is the appropriate "f" factor from table 6, and s is the standard error on the estimate obtained by interpolation from table 8 or 9. Alternatively, s_x may be approximated by the formula

$$s_x = \sqrt{ax^2 + bx} \quad (2)$$

from which the standard errors in tables 8 and 9 were calculated. Here x is the size of the estimate and "a" and "b" are the parameters associated with the particular type of characteristic being estimated. Use of formula 2 will provide more accurate results than the use of formula 1.

Illustration.

Suppose SIPP estimates for Wave 1 of the 1991 panel show that there were 472,000 households with monthly household income above \$6,000. The appropriate parameters and factor from table 6 and the appropriate general standard error from table 8 are

$$a = -0.0001005 \quad b = 9,286 \quad f = 1.00 \quad s = 66,000$$

Using formula 1, the approximate standard error is

$$s_x = 66,000$$

Using formula 2, the approximate standard error is

$$\sqrt{(-0.0001005)(472,000)^2 + (9,286)(472,000)} = 66,000$$

Using the standard error based on formula 2, the approximate 90-percent confidence interval as shown by the data is from 366,000 to 578,000. Therefore, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 90% of all samples.

Illustration for computing standard errors for combined panel estimates.

Suppose the combined SIPP estimate for total number of households for Wave 5, 1990 panel and Wave 2, 1991 panel was 92,398,000. The combined panel parameters for total households are obtained by multiplying the appropriate "a" and "b" values from table 6 by the appropriate factors from tables 15 and 16. The 1991 parameters and factors are $a = -0.0001005$, $b = 9,286$, $g = 0.4163$ and factor = 1.0000, respectively. Thus, the combined panel parameters are $a = -0.0000418$ and $b = 3,866$. Using formula 2, the approximate standard error is

$$S = \sqrt{(-0.0000418)(92,398,000)^2 + (3866)(92,398,000)} = 19,000$$

Standard Error of a Mean. A mean is defined here to be the average quantity of some item (other than persons, families, or households) per person, family or household. For example, it could be the average monthly household income of females age 25 to 34. The standard error of a mean can be approximated by formula 3 below. Because of the approximations used in developing formula 3, an estimate of the standard error of the mean obtained from this formula will generally underestimate the true standard error. The formula used to estimate the standard error of a mean \bar{x} is

$$s_{\bar{x}} = \sqrt{\left(\frac{b}{y}\right)s^2} \quad (3)$$

where y is the size of the base, s^2 is the estimated population variance of the item and b is the parameter associated with the particular type of item.

The population variance s^2 may be estimated by one of two methods. In both methods we assume x_i is the value of the item for unit i . (Unit may be person, family, or household). To use the first method, the range of values for the item is divided into c intervals. The upper and lower boundaries of interval j are Z_{j-1} and Z_j , respectively. Each unit is placed into one of c groups such that $Z_{j-1} < x_i \leq Z_j$.

The estimated population variance, s^2 , is given by the formula:

$$s^2 = \sum_{j=1}^c p_j m_j^2 - \bar{x}^2, \quad (4)$$

where p_j is the estimated proportion of units in group j , and $m_j = (Z_{j-1} + Z_j) / 2$. The most representative value of the item in group j is assumed to be m_j . If group c is open-ended, i.e., no upper interval boundary exists, then an approximate value for m_c is

$$m_c = \frac{3}{2} Z_{c-1}.$$

The mean, \bar{x} can be obtained using the following formula:

$$\bar{x} = \sum_{j=1}^c p_j m_j.$$

In the second method, the estimated population variance is given by

$$s^2 = \frac{\sum_{i=1}^n w_i x_i^2}{\sum_{i=1}^n w_i} - \bar{x}^2, \quad (5)$$

where there are n units with the item of interest and w_i is the final weight for unit i . The mean, \bar{x} , can be obtained from the formula

$$\bar{X} = \frac{\sum_{j=1}^n w_j X_j}{\sum_{j=1}^n w_j}.$$

When forming combined estimates using formula (A) from the section on combined panel estimates, s^2 , given by formula (4), should be calculated by forming a distribution for each panel. The range of values for the item will be divided into intervals. Combined estimates for each interval can be obtained using formula (A). Formula (4) can be applied to the combined distribution. To calculate \bar{X} and s^2 given by formula (5), replace x_i by Wx_i for x_i from the earlier panel and $(1-W)x_i$ for x_i from the later panel.

Illustration.

Suppose that based on Wave 1 data, the distribution of monthly cash income for persons age 25 to 34 during the month of January 1991 is given in table 14.

Using formula 4 and the mean monthly cash income of \$2,530 the approximate population variance, s^2 , is

$$s^2 = \left(\frac{1,371}{39,851} \right) (150)^2 + \left(\frac{1,651}{39,851} \right) (450)^2 + \dots +$$

$$\left(\frac{1,493}{39,851} \right) (9,000)^2 - (2,530)^2 = 3,159,887.$$

Using formula 3, the appropriate base "b" parameter and factor from table 6, the estimated standard error of a mean \bar{X} is

$$s_{\bar{X}} = \sqrt{\left(\frac{7,514}{39,851,000} \right) (3,159,887)} = \$24$$

Standard error of an aggregate. An aggregate is defined to be the total quantity of an item summed over all the units in a

group. The standard error of an aggregate can be approximated using formula 6.

As with the estimate of the standard error of a mean, the estimate of the standard error of an aggregate will generally underestimate the true standard error. Let y be the size of the base, s^2 be the estimated population variance of the item obtained using formula (4) or (5) and b be the parameter associated with the particular type of item. The standard error of an aggregate is:

$$s_x = \sqrt{(b) (y) s^2} \quad (6)$$

Standard Errors of Estimated Percentages. The reliability of an estimated percentage, computed using sample data for both numerator and denominator, depends upon both the size of the percentage and the size of the total upon which the percentage is based. Estimated percentages are relatively more reliable than the corresponding estimates of the numerators of the percentages, particularly if the percentages are 50 percent or more, e.g., the percent of people employed is more reliable than the estimated number of people employed. When the numerator and denominator of the percentage have different parameters, use the parameter (and appropriate factor) of the numerator. If proportions are presented instead of percentages, note that the standard error of a proportion is equal to the standard error of the corresponding percentage divided by 100.

There are two types of percentages commonly estimated. The first is the percentage of persons, families or households sharing a particular characteristic such as the percent of persons owning their own home. The second type is the percentage of money or some similar concept held by a particular group of persons or held in a particular form. Examples are the percent of total wealth held by persons with high income and the percent of total income received by persons on welfare.

For the percentage of persons, families, or households, the approximate standard error, $s_{(x,p)}$, of the estimated percentage p can be obtained by the formula

$$s_{(x,p)} = fs \quad (7)$$

when data from all four rotations are used to estimate p .

In this formula, f is the appropriate "f" factor from table 6 and s is the standard error of the estimate from table 10 or 11.

Alternatively, it may be approximated by the formula

$$S_{(x,p)} = \sqrt{\frac{b}{x} (p) (100-p)} \quad (8)$$

from which the standard errors in tables 10 and 11 were calculated. Here x is the size of the subclass of social units which is the base of the percentage, p is the percentage ($0 < p < 100$), and b is the parameter associated with the characteristic in the numerator. Use of this formula will give more accurate results than use of formula 7 above and should be used when data from less than four rotations are used to estimate p.

Illustration.

Suppose that, in the month of January 1991, 6.7 percent of the 16,812,000 persons in nonfarm households with a mean monthly household cash income of \$4,000 to \$4,999, were black. Using formula 8 and the "b" parameter of 10,110 from table 6 and a factor of 1 for the month of January 1991 from table 7, the approximate standard error is

$$\sqrt{\frac{10,110}{(16,812,000)} (6.7) (100-6.7)} = 0.61 \text{ percent}$$

Consequently, the 90 percent confidence interval as shown by these data is from 5.7 to 7.7 percent.

For percentages of money, a more complicated formula is required. A percentage of money will usually be estimated in one of two ways. It may be the ratio of two aggregates:

$$P_I = 100 (X_A / X_N)$$

or it may be the ratio of two means with an adjustment for different bases:

$$P_I = 100 (\beta_A \bar{X}_A / \bar{X}_N)$$

where x_A and x_N are aggregate money figures, \bar{x}_A and \bar{x}_N are mean money figures, and \hat{p}_A is the estimated number in group A divided by the estimated number in group N. In either case, we estimate the standard error as

$$s_I = \sqrt{\left(\frac{\hat{p}_A \bar{x}_A}{\bar{x}_N}\right)^2 \left[\left(\frac{s_P}{\hat{p}_A}\right)^2 + \left(\frac{s_A}{\bar{x}_A}\right)^2 + \left(\frac{s_B}{\bar{x}_N}\right)^2 \right]} \quad (9)$$

where s_P is the standard error of \hat{p}_A , s_A is the standard error of \bar{x}_A and s_B is the standard error of \bar{x}_N . To calculate s_P , use formula 8. The standard errors of \bar{x}_N and \bar{x}_A may be calculated using formula 3.

It should be noted that there is frequently some correlation between \hat{p}_A , \bar{x}_N , and \bar{x}_A . Depending on the magnitude and sign of the correlations, the standard error will be over or underestimated.

Illustration.

Suppose that in January 1991, 9.8% of the households own rental property, the mean value of rental property is \$72,121, the mean value of assets is \$78,734, and the corresponding standard errors are 0.31%, \$5799, and \$2867. In total there are 86,790,000 households. Then, the percent of all household assets held in rental property is

$$= 100 \left((0.098) \frac{72121}{78734} \right) = 9.0\%$$

Using formula (9), the appropriate standard error is

$$\begin{aligned}
 s_r &= \sqrt{\left(\frac{(0.098)(72121)}{78734}\right)^2 \left[\left(\frac{0.0031}{0.098}\right)^2 + \left(\frac{5799}{72121}\right)^2 + \left(\frac{2867}{78734}\right)^2\right]} \\
 &= 0.008 \\
 &= 0.8\%
 \end{aligned}$$

Standard Error of a Difference. The standard error of a difference between two sample estimates is approximately equal to

$$s_{(x-y)} = \sqrt{s_x^2 + s_y^2} \quad (10)$$

where s_x and s_y are the standard errors of the estimates x and y .

The estimates can be numbers, percents, ratios, etc. The above formula assumes that the correlation coefficient between the characteristics estimated by x and y is zero. If the correlation is really positive (negative), then this assumption will tend to cause overestimates (underestimates) of the true standard error.

Illustration.

Suppose that SIPP estimates show the number of persons age 35-44 years with monthly cash income of \$4,000 to \$4,999 was 3,186,000 in the month of January 1991 and the number of persons age 25-34 years with monthly cash income of \$4,000 to \$4,999 in the same time period was 2,619,000. Then, using parameters from table 6 and formula 2, the standard errors of these numbers are approximately 153,000 and 139,000, respectively. The difference in sample estimates is 567,000 and, using formula 10, the approximate standard error of the difference is

$$\sqrt{(153,000)^2 + (139,000)^2} = 207,000$$

Suppose that it is desired to test at the 10 percent significance level whether the number of persons with monthly cash income of \$4,000 to \$4,999 was different for persons age 35-44 years than for persons age 25-34 years. To perform the test, compare the difference of 567,000 to the product $1.6 \times 207,000 = 331,200$. Since the difference is greater than 1.6 times the standard error of the difference, the data show that the two age groups are significantly different at the 10 percent significance level.

Standard Error of a Median. The median quantity of some item such as income for a given group of persons, families, or households is that quantity such that at least half the group have as much or more and at least half the group have as much or less. The sampling variability of an estimated median depends upon the form of the distribution of the item as well as the size of the group. To calculate standard errors on medians, the procedure described below may be used.

An approximate method for measuring the reliability of an estimated median is to determine a confidence interval about it. (See the section on sampling variability for a general discussion of confidence intervals.) The following procedure may be used to estimate the 68-percent confidence limits and hence the standard error of a median based on sample data.

1. Determine, using either formula 7 or formula 8, the standard error of an estimate of 50 percent of the group;
2. Add to and subtract from 50 percent the standard error determined in step 1;
3. Using the distribution of the item within the group, calculate the quantity of the item such that the percent of the group with more of the item is equal to the smaller percentage found in step 2. This quantity will be the upper limit for the 68-percent confidence interval. In a similar fashion, calculate the quantity of the item such that the percent of the group with more of the item is equal to the larger percentage found in step 2. This quantity will be the lower limit for the 68-percent confidence interval;
4. Divide the difference between the two quantities determined in step 3 by two to obtain the standard error of the median.

To perform step 3, it will be necessary to interpolate. Different methods of interpolation may be used. The most common are simple linear interpolation and Pareto interpolation. The appropriateness of the method depends on the form of the distribution around the median. If density is declining in the area, then we recommend Pareto interpolation. If density is fairly constant in the area, then we recommend linear interpolation. Note, however, that Pareto interpolation can never be used if the interval contains zero or negative measures

of the item of interest. Interpolation is used as follows. The quantity of the item such that "p" percent have more of the item is

$$X_{PN} = \exp \left[\left(\frac{\ln \left(\frac{PN}{N_1} \right)}{\ln \left(\frac{N_2}{N_1} \right)} \right) \ln \left(\frac{A_2}{A_1} \right) \right] A_1 \quad (11)$$

if Pareto Interpolation is indicated and

$$X_{PN} = \left[\frac{PN - N_1}{N_2 - N_1} (A_2 - A_1) + A_1 \right] \quad (12)$$

if linear interpolation is indicated, where

- | | |
|-----------------------------------|--|
| N | is the size of the group, |
| A ₁ and A ₂ | are the lower and upper bounds, respectively, of the interval in which X _{PN} falls, |
| N ₁ and N ₂ | are the estimated number of group members owning more than A ₁ and A ₂ , respectively, |
| exp | refers to the exponential function and |
| Ln | refers to the natural logarithm function. |

Illustration.

To illustrate the calculations for the sampling error on a median, we return to table 14. The median monthly income for this group is \$2,158. The size of the group is 39,851,000.

1. Using formula 8, the standard error of 50 percent on a base of 39,851,000 is about 0.7 percentage points.
2. Following step 2, the two percentages of interest are 49.3 and 50.7.
3. By examining table 14, we see that the percentage 49.3 falls in the income interval from 2000 to 2499. (Since 55.5% receive more than \$2,000 per month, the dollar value corresponding to 49.3 must be between \$2,000 and \$2,500). Thus, A₁ = \$2,000, A₂ = \$2,500, N₁ = 22,106,000, and N₂ = 16,307,000.

In this case, we decided to use Pareto interpolation. Therefore, the upper bound of a 68% confidence interval for the median is

$$\$2,000 \exp \left[\left(\text{Ln} \left(\frac{(.493)(39,851,000)}{22,106,000} \right) / \text{Ln} \left(\frac{16,307,000}{22,106,000} \right) \right) \text{Ln} \left(\frac{2,500}{2,000} \right) \right] = \$2181$$

Also by examining table 14, we see that 50.7 falls in the same income interval. Thus, A_1 , A_2 , N_1 and N_2 are the same. We also use Pareto interpolation for this case. So the lower bound of a 68% confidence interval for the median is

$$\$2,000 \exp \left[\left(\text{Ln} \left(\frac{(.507)(39,851,000)}{22,106,000} \right) / \text{Ln} \left(\frac{16,307,000}{22,106,000} \right) \right) \text{Ln} \left(\frac{2,500}{2,000} \right) \right] = \$2136$$

Thus, the 68-percent confidence interval on the estimated median is from \$2136 to \$2181. An approximate standard error is

$$\frac{\$2181 - \$2136}{2} = \$23$$

Standard Errors of Ratios of Means and Medians. The standard error for a ratio of means or medians is approximated by:

$$s_{\frac{x}{y}} = \sqrt{\left(\frac{x}{y}\right)^2 \left[\left(\frac{s_y}{y}\right)^2 + \left(\frac{s_x}{x}\right)^2 \right]} \quad (13)$$

where x and y are the means or medians, and s_x and s_y are their associated standard errors. Formula 13 assumes that the means are not correlated. If the correlation between the population means estimated by x and y are actually positive (negative), then this procedure will tend to produce overestimates (underestimates) of the true standard error for the ratio of means.

Table 1. 1991 Panel Topical Modules

<u>Wave</u>	<u>Topical Module</u>
1	None
2	Reciency History Employment History Work Disability History Education and Training History Marital History Migration History Fertility History Household Relationships
3	Child Care Arrangements Child Support Agreements Support of Non-household Members Functional Limitations and Disability Utilization of Health Care Services Work Schedule
4	Selected Financial Assets Medical Expenses and Work Disability Real Estate, Shelter Costs, Dependent Care, and Vehicles
5	Taxes Annual Income and Retirement Accounts School Enrollment and Financing
6	Extended Measures of Wellbeing (Consumer Durables, Living Conditions, Basic Needs, Expenditures, Minimum Income)
7	Assets and Liabilities Retirement Expectations and Pension Plan Coverage Real Estate Property and Vehicles
8	Taxes Annual Income and Retirement Accounts School Enrollment and Financing

Table 2. 1990 Panel Topical Modules

<u>Wave</u>	<u>Topical Module</u>
1	None
2	Reciency History Employment History Work Disability History Education and Training History Marital History Migration History Fertility History Household Relationships
3	Work Schedule Child Care Child Support Agreements Support of Non-household Members Functional Limitations and Disability Utilization of Health Care Services
4	Assets and Liabilities Retirement Expectations and Pension Plan Coverage Real Estate Property and Vehicles
5	Taxes Annual Income and Retirement Accounts School Enrollment and Financing
6	Child Support Agreements Support for Non-household Members Functional Limitations and Disability Utilization of Health Care Services Not in Labor Force Spells
7	Selected Financial Assets Medical Expenses and Work Disability Real Estate, Shelter Costs, Dependent Care and Vehicles
8	Taxes Annual Income and Retirement Accounts School Enrollment and Financing

Table 3. Reference Months for Each Interview Month - 1991 Panel

Month of Interview	Wave/ Rotation	Reference Period														
		<u>4th Quarter</u> (1990)			<u>1st Quarter</u> (1991)			<u>2nd Quarter</u> (1991)			<u>3rd Quarter</u> (1991)			<u>4th Quarter</u> (1991)		
		<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Feb 91	1/2	X	X	X	X											
Mar	1/3		X	X	X	X										
Apr	1/4			X	X	X	X									
May	1/1				X	X	X	X								
Jun	2/2					X	X	X	X							
Jul	2/3						X	X	X	X						
Aug	2/4							X	X	X	X					
Sept	2/1								X	X	X	X				
Oct	3/2									X	X	X	X			
Nov	3/3										X	X	X	X		
Dec	3/4											X	X	X	X	
-														.	.	.
-														
-														
Sept 93	8/1															
															X	X
																X
																X

Table 4. Reference Months for Each Interview Month - 1990 Panel

Month of Interview	Wave/ Rotation	Reference Period											
		4th Quarter (1989)			1st Quarter (1990)			2nd Quarter (1990)			3rd Quarter (1990)		
		<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>
Feb 90	1/2	X	X	X	X								
Mar	1/3		X	X	X	X							
Apr	1/4			X	X	X	X						
May	1/1				X	X	X	X					
Jun	2/2					X	X	X	X				
Jul	2/3						X	X	X	X			
Aug	2/4							X	X	X	X		
Sept	2/1							X	X	X	X	X	
Oct	3/2								X	X	X	X	X
Nov	3/3									X	X	X	X
Dec	3/4										X	X	X
-											.	.	.
-													...
-													...
Sept 92	8/1												X X X X

Table 5. Metropolitan Subsample Factors to be Applied to Compute National and Subnational Estimates

		Factors for use in State or CMSA (MSA) Tabulations	Factors for use in Regional or National Tabulations
Northeast:	Connecticut	1.0387	1.0387
	Maine	1.2219	1.2219
	Massachusetts	1.0000	1.0000
	New Hampshire	1.2234	1.2234
	New Jersey	1.0000	1.0000
	New York	1.0000	1.0000
	Pennsylvania	1.0096	1.0096
	Rhode Island	1.2506	1.2506
	Vermont	1.2219	1.2219
Midwest:	Illinois	1.0000	1.0110
	Indiana	1.0336	1.0450
	Iowa	---	---
	Kansas	1.2912	1.3055
	Michigan	1.0328	1.0442
	Minnesota	1.0366	1.0480
	Missouri	1.0756	1.0874
	Nebraska	1.6289	1.6468
	North Dakota	---	---
	Ohio	1.0233	1.0346
	South Dakota	---	---
	Wisconsin	1.0188	1.0300
South:	Alabama	1.1574	1.1595
	Arkansas	1.6150	1.6179
	Delaware	1.5593	1.5621
	D.C.	1.0000	1.0018
	Florida	1.0140	1.0158
	Georgia	1.0142	1.0160
	Kentucky	1.2120	1.2142
	Louisiana	1.0734	1.0753
	Maryland	1.0000	1.0018
	Mississippi	---	---
	North Carolina	1.0000	1.0018
	Oklahoma	1.0793	1.0812
	South Carolina	1.0185	1.0203
	Tennessee	1.0517	1.0536
	Texas	1.0113	1.0131
	Virginia	1.0521	1.0540
	West Virginia	---	---

- indicates no metropolitan subsample is identified for the state

**Table 5 cont'd. Metropolitan Subsample Factors to be Applied to
Compute National and Subnational Estimates**

		Factors for use in State or CMSA (MSA) Tabulations	Factors for use in Regional or National Tabulations
West:	Alaska	1.4339	1.4339
	Arizona	1.0117	1.0117
	California	1.0000	1.0000
	Colorado	1.1306	1.1306
	Hawaii	1.0000	1.0000
	Idaho	1.4339	1.4339
	Montana	1.4339	1.4339
	Nevada	1.0000	1.0000
	New Mexico	1.0000	1.0000
	Oregon	1.1317	1.1317
	Utah	1.0000	1.0000
	Washington	1.0456	1.0456
	Wyoming	1.4339	1.4339

- indicates no metropolitan subsample is identified for the state

Table 6: SIPP Indirect Generalized Variance Parameters for the 1991 Panel

Characteristics ¹	Parameters		
PERSONS	a	b	f
Total or White			
16+ Program Participation and Benefits, Poverty (3)			
Both Sexes	-0.0001342	22,040	0.90
Male	-0.0002789	22,040	
Female	-0.0002587	22,040	
16+ Income and Labor Force (5)			
Both Sexes	-0.0000407	7,514	0.52
Male	-0.0000850	7,514	
Female	-0.0000778	7,514	
16+ Pension Plan ² (4)			
Both Sexes	-0.0000744	13,761	0.71
Male	-0.0001556	13,761	
Female	-0.0001425	13,761	
All Others ² (6)			
Both Sexes	-0.0001134	27,327	1.00
Male	-0.0002334	27,327	
Female	-0.0002203	27,327	
Black			
Poverty (1)			
Both Sexes	-0.0006397	18,800	0.83
Male	-0.0013668	18,800	
Female	-0.0012028	18,800	
All Others (2)			
Both Sexes	-0.0003441	10,110	0.61
Male	-0.0007350	10,110	
Female	-0.0006468	10,110	
HOUSEHOLDS			
Total or White	-0.0001005	9,286	1.00
Black	-0.0006115	6,416	0.83

¹ To account for sample attrition, multiply the a and b parameters by 1.09 for estimates which include data from Wave 5 and beyond.

For cross-tabulations, use the parameters of the characteristic with the smaller number within the parentheses.

² Use the "16+ Pension Plan" parameters for pension plan tabulations of persons 16+ in the labor force. Use the "All Others" parameters for retirement tabulations, 0+ program participation, 0+ benefits, 0+ income, and 0+ labor force tabulations, in addition to any other types of tabulations not specifically covered by another characteristic in this table.

Table 7. Factors to be Applied to Table 6 Base Parameters to Obtain Parameters for Various Reference Periods

<u># of available rotation months¹</u>	<u>factor</u>
Monthly estimate	
1	4.0000
2	2.0000
3	1.3333
4	1.0000
Quarterly estimate	
6	1.8519
8	1.4074
9	1.2222
10	1.0494
11	1.0370
12	1.0000

¹

The number of available rotation months for a given estimate is the sum of the number of rotations available for each month of the estimate.

Table 8. Standard Errors of Estimated Numbers of Households, Families or Unrelated Persons (Numbers in Thousands)

Size of Estimate	Standard Error	Size of Estimate	Standard Error
200	43	15,000	342
300	53	25,000	412
500	68	30,000	434
750	83	40,000	459
1,000	96	50,000	462
2,000	135	60,000	442
3,000	164	70,000	397
5,000	210	80,000	316
7,500	253	90,000	147
10,000	288	92,000	61

1

To account for sample attrition, multiply the standard error of the estimate by 1.04 for estimates which include data from Wave 5 and beyond.

Table 9. Standard Errors of Estimated Numbers of Persons (Numbers in Thousands)

Size of Estimate	Standard Error	Size of Estimate	Standard Error
200	74	50,000	1041
300	90	80,000	1208
600	128	100,000	1264
1,000	165	130,000	1279
2,000	233	135,000	1274
5,000	366	150,000	1244
8,000	460	160,000	1212
11,000	536	180,000	1116
13,000	580	200,000	964
15,000	620	210,000	859
17,000	657	220,000	723
22,000	739	230,000	535
26,000	796	240,000	163
30,000	847		

1

To account for sample attrition, multiply the standard error of the estimate by 1.04 for estimates which include data from Wave 5 and beyond.

Table 10. Standard Errors of Estimated Percentages of of Households Families or Unrelated Persons

Base of Estimated Percentage (Thousands)	Estimated Percentages ¹					
	≤ 1 or ≥ 99	2 or 98	5 or 95	10 or 90	25 or 75	50
200	2.1	3.0	4.7	6.5	9.3	10.8
300	1.8	2.5	3.8	5.3	7.6	8.8
500	1.4	1.9	3.0	4.1	5.9	6.8
750	1.1	1.6	2.4	3.3	4.8	5.6
1,000	1.0	1.3	2.1	2.9	4.2	4.8
2,000	0.68	1.0	1.5	2.0	3.0	3.4
3,000	0.55	0.78	1.2	1.7	2.4	2.8
5,000	0.43	0.60	0.9	1.3	1.9	2.2
7,500	0.35	0.49	0.8	1.1	1.5	1.8
10,000	0.30	0.43	0.66	0.9	1.3	1.5
15,000	0.25	0.35	0.54	0.75	1.1	1.2
25,000	0.19	0.27	0.42	0.58	0.8	1.0
30,000	0.18	0.25	0.38	0.53	0.76	0.9
40,000	0.15	0.21	0.33	0.46	0.66	0.76
50,000	0.14	0.19	0.30	0.41	0.59	0.68
60,000	0.12	0.17	0.27	0.37	0.54	0.62
70,000	0.11	0.16	0.25	0.35	0.50	0.58
80,000	0.11	0.15	0.23	0.32	0.47	0.54
90,000	0.10	0.14	0.22	0.30	0.44	0.51
92,000	0.10	0.14	0.22	0.30	0.44	0.50

¹ To account for sample attrition, multiply the standard error of the estimate by 1.04 for estimates which include data from Wave 5 and beyond.

Table 11. Standard Errors of Estimated Percentages of Persons

Base of Estimated Percentage (Thousands)	Estimated Percentages					
	≤ 1 or ≥ 99	2 or 98	5 or 95	10 or 90	25 or 75	50
200	3.7	5.2	8.1	11.1	16.0	18.5
300	3.0	4.2	6.6	9.1	13.1	15.1
600	2.1	3.0	4.7	6.4	9.2	10.7
1,000	1.6	2.3	3.6	5.0	7.2	8.3
2,000	1.2	1.6	2.5	3.5	5.1	5.8
5,000	0.74	1.0	1.6	2.2	3.2	3.7
8,000	0.58	0.8	1.3	1.8	2.5	2.9
11,000	0.50	0.70	1.1	1.5	2.2	2.5
13,000	0.46	0.64	1.0	1.4	2.0	2.3
17,000	0.40	0.56	0.9	1.2	1.7	2.0
22,000	0.35	0.49	0.8	1.1	1.5	1.8
26,000	0.32	0.45	0.71	1.0	1.4	1.6
30,000	0.30	0.42	0.66	0.9	1.3	1.5
50,000	0.23	0.33	0.51	0.70	1.0	1.2
80,000	0.18	0.26	0.40	0.55	0.8	0.9
100,000	0.16	0.23	0.36	0.50	0.72	0.8
130,000	0.14	0.20	0.32	0.43	0.63	0.72
200,000	0.12	0.16	0.25	0.35	0.51	0.58
220,000	0.11	0.16	0.24	0.33	0.48	0.56
230,000	0.11	0.15	0.24	0.33	0.47	0.55
240,000	0.11	0.15	0.23	0.32	0.46	0.53

To account for sample attrition, multiply the standard error of the estimate by 1.04 for estimates which include data from Wave 5 and beyond.

Table 12. 1991 Topical Module Generalized Variance Parameters¹

	a	b
Fertility		
# Women	-0.0000748	6,119
Births	-0.0000670	11,158
Educational Attainment²		
Wave 2	-0.0000457	8,335
Wave 5	-0.0000511	9,085
Wave 8	-0.0000511	9,085
Marital Status and Person's Family Characteristics		
Some HH members	-0.0000644	12,613
All HH members	-0.0000804	15,326
Child Support		
Wave 3	-0.0000883	9,286
Support for non-household members		
Wave 3	-0.0000961	9,286
Health and Disability	-0.0000499	12,014
0-15 Child Care		
Wave 3	-0.0001340	7,514
Welfare History and AFDC		
Both sexes 18+	-0.0001241	22,040
Males 18+	-0.0002604	22,040
Females 18+	-0.0002372	22,040

¹ Use the "16+ Income and Labor Force" core parameter for tabulations of reasons for not working/reservation wage and work related income.

² The parameter also applies to the School Enrollment and Finance Topical Module Subject.

**Table 13. SIPP 1990, 1991 Combined Panel Topical Module
Generalized Variance Parameters**

	a	b
Educational Attainment		
1990 Wave 5/1991 Wave 2	-0.0000190	3,470
1990 Wave 8/1991 Wave 5	-0.0000201	3,582
Support for non-household members		
1990 Wave 6/1991 Wave 3	-0.0000400	3,866
Health and Disability		
1990 Wave 6/1991 Wave 3	-0.0000208	5,001
0-15 Child Care		
1990 Wave 6/1991 Wave 3	-0.0000558	3,128
Child Support		
1990 Wave 6/1991 Wave 3	-0.0000368	3,866

Table 14. Distribution of Monthly Cash Income Among Persons 25 to 34 Years Old

	Total	under \$300	\$300 to \$599	\$600 to \$899	\$900 to \$1,199	\$1,200 to \$1,499	\$1,500 to \$1,999	\$2,000 to \$2,499	\$2,500 to \$2,999	\$3,000 to \$3,499	\$3,500 to \$3,999	\$4,000 to \$4,999	\$5,000 to \$5,999	\$6,000 and over
Thousands in interval	39,851	1371	1651	2259	2734	3452	6278	5799	4730	3723	2519	2619	1223	1493
Percent with at least as much as lower bound of interval	--	100.0	96.6	92.4	86.7	79.9	71.2	55.5	40.9	29.1	19.7	13.4	6.8	3.7

**Table 15. SIPP Factors to be Applied to the 1991 Base Parameters
to Obtain the 1990, 1991 Combined Panel Parameters**

Waves to be Combined

<u>1990 panel</u>	<u>1991 panel</u>	<u>g factor²</u>
5	2	0.4163
6	3	0.4163
7	4	0.4163
8	5	0.3943

¹ When deriving estimates based on two or more waves of data from the same panel, choose the corresponding g-factor with the greatest value. Apply only this factor to the base parameter.

Table 16. Factors to be Applied to Base Parameters to Obtain Combined Panel Parameters for Estimates¹ from Various Reference Periods.

<u># of available rotation months for 2 panels combined²</u>	<u>factor</u>
Monthly Estimate	
2	4.0000
3	3.0000
4	2.0000
5	1.6667
6	1.3333
7	1.1667
8	1.0000
Quarterly Estimates	
	1.8519
12	1.5631
15	1.2222
18	1.1470
19	1.0000
24	
Annual Estimates	
	1.0000
96	

¹ Estimates are based on monthly averages.

² The number of available rotation months for a given estimate is the sum of the number of rotations available for each month of the estimate for the two panels. There must be at least one rotation month available for each month from each panel for monthly and quarterly estimates.

APPENDIX A-1

Income Source Code List

Code Income Sources

- 1 - Social Security
- 2 - U.S. Government Railroad Retirement pay
- 3 - Federal Supplemental Security Income (SSI)
- 5 - State unemployment compensation
- 6 - Supplemental Unemployment Benefits
- 7 - Other unemployment compensation (Trade Adjustment Act benefits, strike pay, other)
- 8 - Veterans compensation or pensions
- 10 - Worker's compensation
- 12 - Employer or union temporary sickness policy
- 13 - Payments from a sickness, accident or disability insurance policy purchased on your own
- 20 - Aid to Families with Dependent Children (AFDC, ADC)
- 21 - General assistance or General relief
- 23 - Foster child care payments
- 24 - Other welfare
- 25 - WIC (Women, Infants and Children) Nutrition Program
- 27 - Food stamps
- 28 - Child support payments
- 29 - Alimony payments
- 30 - Pension from company or union
- 31 - Federal Civil Service or other Federal civilian employee pensions
- 32 - U.S. Military retirement pay
- 34 - State government pensions
- 35 - Local government pensions
- 36 - Income from paid-up life insurance policies or annuities
- 37 - Estates and trusts
- 38 - Other payments for retirement, disability or survivor
- 40 - G.I. Bill/VEAP education benefits
- 41 - Other VA educational assistance
- 50 - Income assistance from a charitable group
- 51 - Money from relatives or friends
- 52 - Lump sum payments
- 53 - Income from roomers or boarders
- 54 - National Guard or Reserve pay
- 55 - Incidental or casual earnings
- 56 - Other cash income not included elsewhere
- 75 - Categories combined and recoded for confidentiality reasons
 - State Administered Supplemental Security Income (old code 4)
 - Black lung payments (old code 9)
 - State temporary sickness or disability benefits (old code 11)
 - Indian, Cuban, or Refugee Assistance (old code 22)
 - National Guard or Reserve Force retirement (old code 33)

Code Asset List

- 100 - Regular/passbook savings accounts in a bank, savings and loan or credit union
- 101 - Money market deposit accounts
- 102 - Certificates of Deposit or other savings certificates
- 103 - NOW, Super NOW or other interest earning checking accounts
- 104 - Money market funds
- 105 - U.S. Government securities
- 106 - Municipal or corporate bonds
- 107 - Other interest-earning assets
- 110 - Stocks or mutual fund shares
- 120 - Rental property
- 130 - Mortgages
- 140 - Royalties
- 150 - Other financial investments

Code Special Indicators

- 170 - Worked
- 171 - Disabled
- 172 - Medicare
- 173 - Medicaid
- 174 - U.S. Saving Bonds (E, EE)
- 175 - College Work Study
- 176 - PELL Grant
- 177 - Supplemental Educational Opportunity Grant (SEOG)
- 178 - National Direct Student Loan (NSL)
- 179 - Guaranteed Student Loan
- 180 - JTPA Training
- 181 - Employer assistance
- 182 - Fellowship/Scholarship
- 183 - Other financial aid
- 200 - VA disability rating of 100%
- 201 - VA disability of less than 100%

APPENDIX A-2

Income Sources Included in Monthly Cash Income

Earnings from Employment

Wages and salaries
Nonfarm self-employment income
Farm self-employment income

Income from Assets (Property Income)

Regular/passbook savings accounts in a bank, savings and loan or credit union
Money market deposit accounts
Certificates of Deposit or other savings certificates
NOW, Super NOW or other interest-earning checking accounts
Money market funds
U.S. Government securities
Municipal or corporate bonds
Other interest-earning assets
Stocks or mutual fund shares
Rental property
Mortgages
Royalties
Other financial investments

Other Income Sources

Social Security
U.S. Government Railroad Retirement pay
Federal Supplemental Security Income (SSI)
State Administered Supplemental Security Income
State unemployment compensation
Supplemental Unemployment Benefits
Other unemployment compensation (Trade Adjustment Act benefits, strike pay, other)
Veterans compensation or pensions
Black lung payments
Worker's compensation
State temporary sickness or disability benefits
Payments from a sickness, accident or disability insurance policy purchased on your own
Aid to Families with Dependent Children (AFDC, ADC)
General Assistance or General Relief
Indian, Cuban, or Refugee Assistance
Foster child care payments
Other welfare
Child support payments
Alimony payments
Pension from company or union
Federal Civil Service or other Federal civilian employee pensions
U.S. Military retirement pay
National Guard or Reserve Forces retirement
State government pensions
Local government pensions
Income from paid-up life insurance policies or annuities
Estates and trusts

Other payments for retirement, disability or survivor benefits
G.I. Bill/VEAP education benefits
Income assistance from a charitable group
Money from relatives or friends
Lump sum payments
Income from roomers or boarders
National Guard or Reserve pay
Incidental or casual earnings
Other cash income not included elsewhere

APPENDIX A-3

Sources of Means-Tested Benefits Covered in SIPP

Cash Benefits

Federal Supplemental Security Income (SSI)
State Administered Supplemental Security Income
Veterans' pensions
Aid to Families with Dependent Children (AFDC, ADC)
General Assistance or General Relief
Indian, Cuban, or Refugee Assistance
Other welfare
Foster child care payments

Noncash Benefits

Food Stamps
Special Supplemental Food Program for Women, Infants, and Children (WIC)
Low-Income Home Energy Assistance
Medicaid
Free or reduced price school lunches
Free or reduced price school breakfasts
Public or subsidized rental housing

APPENDIX A-4

1990 Census of Population Occupation Classification System

The list presents the occupational classification developed for the 1990 Census of Population and Housing. There are 501 categories for the employed with 1 additional category for the experienced unemployed and 3 additional categories for the Armed Forces. These categories are grouped into 6 summary groups and 13 major groups. The classification is developed from the 1980 Standard Occupational Classification. "n.e.c." is the abbreviation for not elsewhere classified.

1990
Census
code

Occupation category

MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS

Executive, Administrative, and Managerial Occupations

003	Legislators (111)
004	Chief executives and general administrators, public administration (112)
005	Administrators and officials, public administration (1132-1139)
006	Administrators, protective services (1131)
007	Financial managers (122)
008	Personnel and labor relations managers (123)
009	Purchasing managers (124)
013	Managers, marketing, advertising, and public relations (125)
014	Administrators, education and related fields (128)
015	Managers, medicine and health (131)
016	Postmasters and mail superintendents (1344)
017	Managers, food serving and lodging establishments (1351)
018	Managers, properties and real estate (1353)
019	Funeral directors (pt 1359)
021	Managers, service organizations, n.e.c. (127, 1352, 1354, pt 1359)
022	Managers and administrators, n.e.c. (121, 126, 132-1343, 136-139)

Management Related Occupations

023	Accountants and auditors (1412)
024	Underwriters (1414)
025	Other financial officers (1415, 1419)
026	Management analysts (142)
027	Personnel, training, and labor relations specialists (143)
028	Purchasing agents and buyers, farm products (1443)
029	Buyers, wholesale and retail trade except farm products (1442)
033	Purchasing agents and buyers, n.e.c. (1449)
034	Business and promotion agents (145)
035	Construction inspectors (1472)
036	Inspectors and compliance officers, except construction (1473)
037	Management related occupations, n.e.c. (149)

MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS—Con.**Professional Specialty Occupations****Engineers, Architects, and Surveyors**

043

Architects (161)

Engineers

044

Aerospace (1622)

045

Metallurgical and materials (1623)

046

Mining (1624)

047

Petroleum (1625)

048

Chemical (1626)

049

Nuclear (1627)

053

Civil (1628)

054

Agricultural (1632)

055

Electrical and electronic (1633, 1636)

056

Industrial (1634)

057

Mechanical (1635)

058

Marine and naval architects (1637)

059

Engineers, n.e.c. (1639)

063

Surveyors and mapping scientists (164)

Mathematical and Computer Scientists

064

Computer systems analysts and scientists (171)

065

Operations and systems researchers and analysts (172)

066

Actuaries (1732)

067

Statisticians (1733)

068

Mathematical scientists, n.e.c. (1739)

Natural Scientists

069

Physicists and astronomers (1842, 1843)

073

Chemists, except biochemists (1845)

074

Atmospheric and space scientists (1846)

075

Geologists and geodesists (1847)

076

Physical scientists, n.e.c. (1849)

077

Agricultural and food scientists (1853)

078

Biological and life scientists (1854)

079

Forestry and conservation scientists (1852)

083

Medical scientists (1855)

Health Diagnosing Occupations

084

Physicians (261)

085

Dentists (262)

086

Veterinarians (27)

087

Optometrists (281)

088

Podiatrists (283)

089

Health diagnosing practitioners, n.e.c. (289)

Health Assessment and Treating Occupations

095

Registered nurses (29)

096

Pharmacists (301)

097

Dietitians (302)

Therapists

098

Respiratory therapists (3031)

099

Occupational therapists (3032)

103

Physical therapists (3033)

MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS—Con.**Professional Specialty Occupations—Con.**

104	Speech therapists (3034)
105	Therapists, n.e.c. (3039)
106	Physicians' assistants (304)
	Teachers, Postsecondary
113	Earth, environmental, and marine science teachers (2212)
114	Biological science teachers (2213)
115	Chemistry teachers (2214)
116	Physics teachers (2215)
117	Natural science teachers, n.e.c. (2216)
118	Psychology teachers (2217)
119	Economics teachers (2218)
123	History teachers (2222)
124	Political science teachers (2223)
125	Sociology teachers (2224)
126	Social science teachers, n.e.c. (2225)
127	Engineering teachers (2226)
128	Mathematical science teachers (2227)
129	Computer science teachers (2228)
133	Medical science teachers (2231)
134	Health specialties teachers (2232)
135	Business, commerce, and marketing teachers (2233)
136	Agriculture and forestry teachers (2234)
137	Art, drama, and music teachers (2235)
138	Physical education teachers (2236)
139	Education teachers (2237)
143	English teachers (2238)
144	Foreign language teachers (2242)
145	Law teachers (2243)
146	Social work teachers (2244)
147	Theology teachers (2245)
148	Trade and industrial teachers (2246)
149	Home economics teachers (2247)
153	Teachers, postsecondary, n.e.c. (2249)
154	Postsecondary teachers, subject not specified
	Teachers, Except Postsecondary
155	Teachers, prekindergarten and kindergarten (231)
156	Teachers, elementary school (232)
157	Teachers, secondary school (233)
158	Teachers, special education (235)
159	Teachers, n.e.c. (236, 239)
163	Counselors, educational and vocational (24)
	Librarians, Archivists, and Curators
164	Librarians (251)
165	Archivists and curators (252)
	Social Scientists and Urban Planners
166	Economists (1912)
167	Psychologists (1915)
168	Sociologists (1916)
169	Social scientists, n.e.c. (1913, 1914, 1919)
173	Urban planners (192)

MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS—Con.

Professional Specialty Occupations—Con.

Social, Recreation, and Religious Workers

- 174 Social workers (2032)
- 175 Recreation workers (2033)
- 176 Clergy (2042)
- 177 Religious workers, n.e.c. (2049)

Lawyers and Judges

- 178 Lawyers (211)
- 179 Judges (212)

Writers, Artists, Entertainers, and Athletes

- 183 Authors (321)
- 184 Technical writers (398)
- 185 Designers (322)
- 186 Musicians and composers (323)
- 187 Actors and directors (324)
- 188 Painters, sculptors, craft-artists, and artist printmakers (325)
- 189 Photographers (326)
- 193 Dancers (327)
- 194 Artists, performers, and related workers, n.e.c. (328, 329)
- 195 Editors and reporters (331)
- 197 Public relations specialists (332)
- 198 Announcers (333)
- 199 Athletes (34)

TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Technicians and Related Support Occupations

Health Technologists and Technicians

- 203 Clinical laboratory technologists and technicians (362)
- 204 Dental hygienists (363)
- 205 Health record technologists and technicians (364)
- 206 Radiologic technicians (365)
- 207 Licensed practical nurses (366)
- 208 Health technologists and technicians, n.e.c. (369)

Technologists and Technicians, Except Health

Engineering and Related Technologists and Technicians

- 213 Electrical and electronic technicians (3711)
- 214 Industrial engineering technicians (3712)
- 215 Mechanical engineering technicians (3713)
- 216 Engineering technicians, n.e.c. (3719)
- 217 Drafting occupations (372)
- 218 Surveying and mapping technicians (373)

Science Technicians

- 223 Biological technicians (382)
- 224 Chemical technicians (3831)
- 225 Science technicians, n.e.c. (3832, 3833, 384, 389)

Technicians; Except Health, Engineering, and Science

- 226 Airplane pilots and navigators (825)
- 227 Air traffic controllers (392)

TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS—Con.**Technicians and Related Support Occupations—Con.**

228	Broadcast equipment operators (393)
229	Computer programmers (3971, 3972)
233	Tool programmers, numerical control (3974)
234	Legal assistants (396)
235	Technicians, n.e.c. (399)

Sales Occupations

243	Supervisors and proprietors, sales occupations (40)
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Sales Representatives, Finance and Business Services

253	Insurance sales occupations (4122)
254	Real estate sales occupations (4123)
255	Securities and financial services sales occupations (4124)
256	Advertising and related sales occupations (4153)
257	Sales occupations, other business services (4152)

Sales Representatives, Commodities Except Retail

258	Sales engineers (421)
259	Sales representatives, mining, manufacturing, and wholesale (423, 424)

Sales Workers, Retail and Personal Services

263	Sales workers, motor vehicles and boats (4342, 4344)
264	Sales workers, apparel (4346)
265	Sales workers, shoes (4351)
266	Sales workers, furniture and home furnishings (4348)
267	Sales workers; radio, TV, hi-fi, and appliances (4343, 4352)
268	Sales workers, hardware and building supplies (4353)
269	Sales workers, parts (4367)
274	Sales workers, other commodities (4345, 4347, 4354, 4356, 4359, 4362, 4369)
275	Sales counter clerks (4363)
276	Cashiers (4364)
277	Street and door-to-door sales workers (4366)
278	News vendors (4365)

Sales Related Occupations

283	Demonstrators, promoters and models, sales (445)
284	Auctioneers (447)
285	Sales support occupations, n.e.c. (444, 446, 449)

Administrative Support Occupations, Including Clerical**Supervisors, Administrative Support Occupations**

303	Supervisors, general office (4511, 4513, 4514, 4516, 4519, 4529)
304	Supervisors, computer equipment operators (4512)
305	Supervisors, financial records processing (4521)
306	Chief communications operators (4523)
307	Supervisors; distribution, scheduling, and adjusting clerks (4522, 4524-4528)

Computer Equipment Operators

308	Computer operators (4612)
309	Peripheral equipment operators (4613)

TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS—Con.

Administrative Support Occupations, Including Clerical—Con.

Secretaries, Stenographers, and Typists

- 313 Secretaries (4622)
- 314 Stenographers (4623)
- 315 Typists (4624)

Information Clerks

- 316 Interviewers (4642)
- 317 Hotel clerks (4643)
- 318 Transportation ticket and reservation agents (4644)
- 319 Receptionists (4645)
- 323 Information clerks, n.e.c. (4649)

Records Processing Occupations, Except Financial

- 325 Classified-ad clerks (4662)
- 326 Correspondence clerks (4663)
- 327 Order clerks (4664)
- 328 Personnel clerks, except payroll and timekeeping (4692)
- 329 Library clerks (4694)
- 335 File clerks (4696)
- 336 Records clerks (4699)

Financial Records Processing Occupations

- 337 Bookkeepers, accounting, and auditing clerks (4712)
- 338 Payroll and timekeeping clerks (4713)
- 339 Billing clerks (4715)
- 343 Cost and rate clerks (4716)
- 344 Billing, posting, and calculating machine operators (4718)

Duplicating, Mail and Other Office Machine Operators

- 345 Duplicating machine operators (4722)
- 346 Mail preparing and paper handling machine operators (4723)
- 347 Office machine operators, n.e.c. (4729)

Communications Equipment Operators

- 348 Telephone operators (4732)
- 353 Communications equipment operators, n.e.c. (4733, 4739)

Mail and Message Distributing Occupations

- 354 Postal clerks, exc. mail carriers (4742)
- 355 Mail carriers, postal service (4743)
- 356 Mail clerks, exc. postal service (4744)
- 357 Messengers (4745)

Material Recording, Scheduling, and Distributing Clerks

- 359 Dispatchers (4751)
- 363 Production coordinators (4752)
- 364 Traffic, shipping, and receiving clerks (4753)
- 365 Stock and inventory clerks (4754)
- 366 Meter readers (4755)
- 368 Weighers, measurers, checkers and samplers (4756, 4757)
- 373 Expeditors (4758)
- 374 Material recording, scheduling, and distributing clerks, n.e.c. (4759)

TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS—Con.**Administrative Support Occupations, Including Clerical—Con.****Adjusters and Investigators**

- 375 Insurance adjusters, examiners, and investigators (4782)
- 376 Investigators and adjusters, except insurance (4783)
- 377 Eligibility clerks, social welfare (4784)
- 378 Bill and account collectors (4786)

Miscellaneous Administrative Support Occupations

- 379 General office clerks (463)
- 383 Bank tellers (4791)
- 384 Proofreaders (4792)
- 385 Data-entry keyers (4793)
- 386 Statistical clerks (4794)
- 387 Teachers' aides (4795)
- 389 Administrative support occupations, n.e.c. (4787, 4799)

SERVICE OCCUPATIONS**Private Household Occupations**

- 403 Launderers and ironers (503)
- 404 Cooks, private household (504)
- 405 Housekeepers and butlers (505)
- 406 Child care workers, private household (506)
- 407 Private household cleaners and servants (502, 507, 509)

Protective Service Occupations**Supervisors, Protective Service Occupations**

- 413 Supervisors, firefighting and fire prevention occupations (5111)
- 414 Supervisors, police and detectives (5112)
- 415 Supervisors, guards (5113)

Firefighting and Fire Prevention Occupations

- 416 Fire inspection and fire prevention occupations (5122)
- 417 Firefighting occupations (5123)

Police and Detectives

- 418 Police and detectives, public service (5132)
- 423 Sheriffs, bailiffs, and other law enforcement officers (5134)
- 424 Correctional institution officers (5133)

Guards

- 425 Crossing guards (5142)
- 426 Guards and police, exc. public service (5144)
- 427 Protective service occupations, n.e.c. (5149)

Service Occupations, Except Protective and Household**Food Preparation and Service Occupations**

- 433 Supervisors, food preparation and service occupations (5211)
- 434 Bartenders (5212)
- 435 Waiters and waitresses (5213)
- 436 Cooks (5214, 5215)
- 438 Food counter, fountain and related occupations (5216)
- 439 Kitchen workers, food preparation (5217)

SERVICE OCCUPATIONS—Con.**Service Occupations, Except Protective and Household—Con.**

443	Waiters' /waitresses' assistants (5218)
444	Miscellaneous food preparation occupations (5219)
	Health Service Occupations
445	Dental assistants (5232)
446	Health aides, except nursing (5233)
447	Nursing aides, orderlies, and attendants (5236)
	Cleaning and Building Service Occupations, except Household
448	Supervisors, cleaning and building service workers (5241)
449	Maids and housemen (5242, 5249)
453	Janitors and cleaners (5244)
454	Elevator operators (5245)
455	Pest control occupations (5246)
	Personal Service Occupations
456	Supervisors, personal service occupations (5251)
457	Barbers (5252)
458	Hairdressers and cosmetologists (5253)
459	Attendants, amusement and recreation facilities (5254)
461	Guides (5255)
462	Ushers (5256)
463	Public transportation attendants (5257)
464	Baggage porters and bellhops (5262)
465	Welfare service aides (5263)
466	Family child care providers (pt 5264)
467	Early childhood teacher's assistants (pt 5264)
468	Child care workers, n.e.c. (pt 5264)
469	Personal service occupations, n.e.c. (5258, 5269)

FARMING, FORESTRY, AND FISHING OCCUPATIONS**Farm Operators and Managers**

473	Farmers, except horticultural (5512-5514)
474	Horticultural specialty farmers (5515)
475	Managers, farms, except horticultural (5522-5524)
476	Managers, horticultural specialty farms (5525)

Other Agricultural and Related Occupations**Farm Occupations, Except Managerial**

477	Supervisors, farm workers (5611)
479	Farm workers (5612-5617)
483	Marine life cultivation workers (5618)
484	Nursery workers (5619)

Related Agricultural Occupations

485	Supervisors, related agricultural occupations (5621)
486	Groundskeepers and gardeners, except farm (5622)
487	Animal caretakers, except farm (5624)
488	Graders and sorters, agricultural products (5625)
489	Inspectors, agricultural products (5627)

FARMING, FORESTRY, AND FISHING OCCUPATIONS—Con.

Forestry and Logging Occupations

- 494 Supervisors, forestry, and logging workers (571)
- 495 Forestry workers, except logging (572)
- 496 Timber cutting and logging occupations (573, 579)

Fishers, Hunters, and Trappers

- 497 Captains and other officers, fishing vessels (pt 8241)
- 498 Fishers (583)
- 499 Hunters and trappers (584)

PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS

Mechanics and Repairers

- 503 Supervisors, mechanics and repairers (60)

Mechanics and Repairers, Except Supervisors

Vehicle and Mobile Equipment Mechanics and Repairers

- 505 Automobile mechanics (pt 6111)
- 506 Automobile mechanic apprentices (pt 6111)
- 507 Bus, truck, and stationary engine mechanics (6112)
- 508 Aircraft engine mechanics (6113)
- 509 Small engine repairers (6114)
- 514 Automobile body and related repairers (6115)
- 515 Aircraft mechanics, exc. engine (6116)
- 516 Heavy equipment mechanics (6117)
- 517 Farm equipment mechanics (6118)
- 518 Industrial machinery repairers (613)
- 519 Machinery maintenance occupations (614)

Electrical and Electronic Equipment Repairers

- 523 Electronic repairers, communications and industrial equipment (6151, 6153, 6155)
- 525 Data processing equipment repairers (6154)
- 526 Household appliance and power tool repairers (6156)
- 527 Telephone line installers and repairers (6157)
- 529 Telephone installers and repairers (6158)
- 533 Miscellaneous electrical and electronic equipment repairers (6152, 6159)
- 534 Heating, air conditioning, and refrigeration mechanics (616)

Miscellaneous Mechanics and Repairers

- 535 Camera, watch, and musical instrument repairers (6171, 6172)
- 536 Locksmiths and safe repairers (6173)
- 538 Office machine repairers (6174)
- 539 Mechanical controls and valve repairers (6175)
- 543 Elevator installers and repairers (6176)
- 544 Millwrights (6178)
- 547 Specified mechanics and repairers, n.e.c. (6177, 6179)
- 549 Not specified mechanics and repairers

Construction Trades

Supervisors, Construction Occupations

- 553 Supervisors; brickmasons, stonemasons, and tile setters (6312)
- 554 Supervisors, carpenters and related workers (6313)
- 555 Supervisors, electricians and power transmission installers (6314)
- 556 Supervisors; painters, paperhangers, and plasterers (6315)

PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS—Con.

557	Supervisors; plumbers, pipefitters, and steamfitters (6316)
558	Supervisors, construction n.e.c. (6311, 6318)
Construction Trades, Except Supervisors	
563	Brickmasons and stonemasons (pt 6412, pt 6413)
564	Brickmason and stonemason apprentices (pt 6412, pt 6413)
565	Tile setters, hard and soft (pt 6414, pt 6462)
566	Carpet installers (pt 6462)
567	Carpenters (pt 6422)
569	Carpenter apprentices (pt 6422)
573	Drywall installers (6424)
575	Electricians (pt 6432)
576	Electrician apprentices (pt 6432)
577	Electrical power installers and repairers (6433)
579	Painters, construction and maintenance (6442)
583	Paperhangers (6443)
584	Plasterers (6444)
585	Plumbers, pipefitters, and steamfitters (pt 645)
587	Plumber, pipefitter, and steamfitter apprentices (pt 645)
588	Concrete and terrazzo finishers (6463)
589	Glaziers (6464)
593	Insulation workers (6465)
594	Paving, surfacing, and tamping equipment operators (6466)
595	Roofers (6468)
596	Sheetmetal duct installers (6472)
597	Structural metal workers (6473)
598	Drillers, earth (6474)
599	Construction trades, n.e.c. (6467, 6475, 6476, 6479)
Extractive Occupations	
613	Supervisors, extractive occupations (632)
614	Drillers, oil well (652)
615	Explosives workers (653)
616	Mining machine operators (654)
617	Mining occupations, n.e.c. (656)
Precision Production Occupations	
628	Supervisors, production occupations (67, 71)
Precision Metal Working Occupations	
634	Tool and die makers (pt 6811)
635	Tool and die maker apprentices (pt 6811)
636	Precision assemblers, metal (6812)
637	Machinists (pt 6813)
639	Machinist apprentices (pt 6813)
643	Boilermakers (6814)
644	Precision grinders, filers, and tool sharpeners (6816)
645	Patternmakers and model makers, metal (6817)
646	Lay-out workers (6821)
647	Precious stones and metals workers (Jewelers) (6822, 6866)
649	Engravers, metal (6823)
653	Sheet metal workers (pt 6824)
654	Sheet metal worker apprentices (pt 6824)

**PRECISION PRODUCTION, CRAFT, AND
REPAIR OCCUPATIONS—Con.**

655	Miscellaneous precision metal workers (6829)
	Precision Woodworking Occupations
656	Patternmakers and model makers, wood (6831)
657	Cabinet makers and bench carpenters (6832)
658	Furniture and wood finishers (6835)
659	Miscellaneous precision woodworkers (6839)
	Precision Textile, Apparel, and Furnishings Machine Workers
666	Dressmakers (pt 6852, pt 7752)
667	Tailors (pt 6852)
668	Upholsterers (6853)
669	Shoe repairers (6854)
674	Miscellaneous precision apparel and fabric workers (6856, 6859, pt 7752)
	Precision Workers, Assorted Materials
675	Hand molders and shapers, except jewelers (6861)
676	Patternmakers, lay-out workers, and cutters (6862)
677	Optical goods workers (6864, pt 7477, pt 7677)
678	Dental laboratory and medical appliance technicians (6865)
679	Bookbinders (6844)
683	Electrical and electronic equipment assemblers (6867)
684	Miscellaneous precision workers, n.e.c. (6869)
	Precision Food Production Occupations
686	Butchers and meat cutters (6871)
687	Bakers (6872)
688	Food batchmakers (6873, 6879)
	Precision Inspectors, Testers, and Related Workers
689	Inspectors, testers, and graders (6881, 828)
693	Adjusters and calibrators (6882)
	Plant and System Operators
694	Water and sewage treatment plant operators (691)
695	Power plant operators (pt 693)
696	Stationary engineers (pt 693, 7668)
699	Miscellaneous plant and system operators (692, 694, 695, 696)
	OPERATORS, FABRICATORS, AND LABORERS
	Machine Operators, Assemblers, and Inspectors
	Machine Operators and Tenders, Except Precision
	Metalworking and Plastic Working Machine Operators
703	Lathe and turning machine set-up operators (7312)
704	Lathe and turning machine operators (7512)
705	Milling and planing machine operators (7313, 7513)
706	Punching and stamping press machine operators (7314, 7317, 7514, 7517)
707	Rolling machine operators (7316, 7516)
708	Drilling and boring machine operators (7318, 7518)
709	Grinding, abrading, buffing, and polishing machine operators (7322, 7324, 7522)
713	Forging machine operators (7319, 7519)

OPERATORS, FABRICATORS, AND LABORERS—Con.

Machine Operators, Assemblers, and Inspectors—Con.

714 Numerical control machine operators (7326)
 715 Miscellaneous metal, plastic, stone, and glass working machine operators (7329, 7529)
 717 Fabricating machine operators, n.e.c. (7339, 7539)

Metal and Plastic Processing Machine Operators

719 Molding and casting machine operators (7315, 7342, 7515, 7542)
 723 Metal plating machine operators (7343, 7543)
 724 Heat treating equipment operators (7344, 7544)
 725 Miscellaneous metal and plastic processing machine operators (7349, 7549)

Woodworking Machine Operators

726 Wood lathe, routing, and planing machine operators (7431, 7432, 7631, 7632)
 727 Sawing machine operators (7433, 7633)
 728 Shaping and joining machine operators (7435, 7635)
 729 Nailing and tacking machine operators (7636)
 733 Miscellaneous woodworking machine operators (7434, 7439, 7634, 7639)

Printing Machine Operators

734 Printing press operators (7443, 7643)
 735 Photoengravers and lithographers (6842, 7444, 7644)
 736 Typesetters and compositors (6841, 7642)
 737 Miscellaneous printing machine operators (6849, 7449, 7649)

Textile, Apparel, and Furnishings Machine Operators

738 Winding and twisting machine operators (7451, 7651)
 739 Knitting, looping, tapping, and weaving machine operators (7452, 7652)
 743 Textile cutting machine operators (7654)
 744 Textile sewing machine operators (7655)
 745 Shoe machine operators (7656)
 747 Pressing machine operators (7657)
 748 Laundering and dry cleaning machine operators (6855, 7658)
 749 Miscellaneous textile machine operators (7459, 7659)

Machine Operators, Assorted Materials

753 Cementing and gluing machine operators (7661)
 754 Packaging and filling machine operators (7462, 7662)
 755 Extruding and forming machine operators (7463, 7663)
 756 Mixing and blending machine operators (7664)
 757 Separating, filtering, and clarifying machine operators (7476, 7666, 7676)
 758 Compressing and compacting machine operators (7467, 7667)
 759 Painting and paint spraying machine operators (7669)
 763 Roasting and baking machine operators, food (7472, 7672)
 764 Washing, cleaning, and pickling machine operators (7673)
 765 Folding machine operators (7474, 7674)
 766 Furnace, kiln, and oven operators, exc. food (7675)
 768 Crushing and grinding machine operators (pt 7477, pt 7677)
 769 Slicing and cutting machine operators (7478, 7678)
 773 Motion picture projectionists (pt 7479)
 774 Photographic process machine operators (6863, 6868, 7671)
 777 Miscellaneous machine operators, n.e.c. (pt 7479, 7665, 7679)
 779 Machine operators, not specified

OPERATORS, FABRICATORS, AND LABORERS—Con.**Machine Operators, Assemblers, and Inspectors—Con.****Fabricators, Assemblers, and Hand Working Occupations**

783	Welders and cutters (7332, 7532, 7714)
784	Solderers and brazers (7333, 7533, 7717)
785	Assemblers (772, 774)
786	Hand cutting and trimming occupations (7753)
787	Hand molding, casting, and forming occupations (7754, 7755)
789	Hand painting, coating, and decorating occupations (7756)
793	Hand engraving and printing occupations (7757)
795	Miscellaneous hand working occupations (7758, 7759)

Production Inspectors, Testers, Samplers, and Weighers

796	Production inspectors, checkers, and examiners (782, 787)
797	Production testers (783)
798	Production samplers and weighers (784)
799	Graders and sorters, exc. agricultural (785)

Transportation and Material Moving Occupations**Motor Vehicle Operators**

803	Supervisors, motor vehicle operators (8111)
804	Truck drivers (8212-8214)
806	Driver-sales workers (8218)
808	Bus drivers (8215)
809	Taxicab drivers and chauffeurs (8216)
813	Parking lot attendants (874)
814	Motor transportation occupations, n.e.c. (8219)

Transportation Occupations, Except Motor Vehicles**Rail Transportation Occupations**

823	Railroad conductors and yardmasters (8113)
824	Locomotive operating occupations (8232)
825	Railroad brake, signal, and switch operators (8233)
826	Rail vehicle operators, n.e.c. (8239)

Water Transportation Occupations

828	Ship captains and mates, except fishing boats (pt 8241, 8242)
829	Sailors and deckhands (8243)
833	Marine engineers (8244)
834	Bridge, lock, and lighthouse tenders (8245)

Material Moving Equipment Operators

843	Supervisors, material moving equipment operators (812)
844	Operating engineers (8312)
845	Longshore equipment operators (8313)
848	Hoist and winch operators (8314)
849	Crane and tower operators (8315)
853	Excavating and loading machine operators (8316)
855	Grader, dozer, and scraper operators (8317)
856	Industrial truck and tractor equipment operators (8318)
859	Miscellaneous material moving equipment operators (8319)

OPERATORS, FABRICATORS, AND LABORERS—Con.

Handlers, Equipment Cleaners, Helpers, and Laborers

864 Supervisors, handlers, equipment cleaners, and laborers, n.e.c. (85)
865 Helpers, mechanics and repairers (863)

Helpers, Construction and Extractive Occupations

866 Helpers, construction trades (8641-8645, 8648)
867 Helpers, surveyor (8646)
868 Helpers, extractive occupations (865)
869 Construction laborers (871)
874 Production helpers (861, 862)

Freight, Stock, and Material Handlers

875 Garbage collectors (8722)
876 Stevedores (8723)
877 Stock handlers and baggers (8724)
878 Machine feeders and offbearers (8725)
883 Freight, stock, and material handlers, n.e.c. (8726)
885 Garage and service station related occupations (873)
887 Vehicle washers and equipment cleaners (875)
888 Hand packers and packagers (8761)
889 Laborers, except construction (8769)

MILITARY OCCUPATIONS

903 Commissioned Officers and Warrant Officers
904 Non-commissioned Officers and Other Enlisted Personnel
905 Military occupation, rank not specified

EXPERIENCED UNEMPLOYED NOT CLASSIFIED BY OCCUPATION

909 Last worked 1984 or earlier

APPENDIX A-5

1990 Census of Population Industry Classification System

The list presents the industrial classification developed for the 1990 Census of Population and Housing. There are 235 categories for the employed, with 1 additional category for the experienced unemployed, and 7 additional categories for the Armed Forces. These categories are aggregated into 13 major groups. The classification is developed from the 1987 Standard Industrial Classification. "n.e.c." is the abbreviation for not elsewhere classified.

1990
Census
code

Industry category

AGRICULTURE, FORESTRY, AND FISHERIES

010	Agricultural production, crops (01)
011	Agricultural production, livestock (02)
012	Veterinary services (074)
020	Landscape and horticultural services (078)
030	Agricultural services, n.e.c. (071, 072, 075, 076)
031	Forestry (08)
032	Fishing, hunting, and trapping (09)

MINING

040	Metal mining (10)
041	Coal mining (12)
042	Oil and gas extraction (13)
050	Nonmetallic mining and quarrying, except fuels (14)

060	CONSTRUCTION (15, 16, 17)
-----	---------------------------

MANUFACTURING

Nondurable Goods

Food and kindred products

100	Meat products (201)
101	Dairy products (202)
102	Canned, frozen, and preserved fruits and vegetables (203)
110	Grain mill products (204)
111	Bakery products (205)
112	Sugar and confectionery products (206)
120	Beverage industries (208)
121	Miscellaneous food preparations and kindred products (207, 209)
122	Not specified food industries
130	Tobacco manufactures (21)

Textile mill products

132	Knitting mills (225)
140	Dyeing and finishing textiles, except wool and knit goods (226)
141	Carpets and rugs (227)
142	Yarn, thread, and fabric mills (221-224, 228)
150	Miscellaneous textile mill products (229)

SIPP FILES

MANUFACTURING—Con.

Nondurable Goods—Con.

Apparel and other finished textile products

- 151 Apparel and accessories, except knit (231-238)
- 152 Miscellaneous fabricated textile products (239)

Paper and allied products

- 160 Pulp, paper, and paperboard mills (261-263)
- 161 Miscellaneous paper and pulp products (267)
- 162 Paperboard containers and boxes (265)

Printing, publishing, and allied industries

- 171 Newspaper publishing and printing (271)
- 172 Printing, publishing, and allied industries, except newspapers (272-279)

Chemicals and allied products

- 180 Plastics, synthetics, and resins (282)
- 181 Drugs (283)
- 182 Soaps and cosmetics (284)
- 190 Paints, varnishes, and related products (285)
- 191 Agricultural chemicals (287)
- 192 Industrial and miscellaneous chemicals (281, 286, 289)

Petroleum and coal products

- 200 Petroleum refining (291)
- 201 Miscellaneous petroleum and coal products (295, 299)

Rubber and miscellaneous plastics products

- 210 Tires and inner tubes (301)
- 211 Other rubber products, and plastics footwear and belting (302-306)
- 212 Miscellaneous plastics products (308)

Leather and leather products

- 220 Leather tanning and finishing (311)
- 221 Footwear, except rubber and plastic (313, 314)
- 222 Leather products, except footwear (315-317, 319)

Durable Goods

Lumber and wood products, except furniture

- 230 Logging (241)
- 231 Sawmills, planing mills, and millwork (242, 243)
- 232 Wood buildings and mobile homes (245)
- 241 Miscellaneous wood products (244, 249)
- 242 Furniture and fixtures (25)

Stone, clay, glass, and concrete products

- 250 Glass and glass products (321-323)
- 251 Cement, concrete, gypsum, and plaster products (324,327)
- 252 Structural clay products (325)
- 261 Pottery and related products (326)
- 262 Miscellaneous nonmetallic mineral and stone products (328, 329)

MANUFACTURING—Con.**Durable Goods—Con.****Metal industries**

270	Blast furnaces, steelworks, rolling and finishing mills (331)
271	Iron and steel foundries (332)
272	Primary aluminum industries (3334, part 334, 3353-3355, 3363, 3365)
280	Other primary metal industries (3331, 3339, part 334, 3351, 3356, 3357, 3364, 3366, 3369, 339)
281	Cutlery, handtools, and general hardware (342)
282	Fabricated structural metal products (344)
290	Screw machine products (345)
291	Metal forgings and stampings (346)
292	Ordnance (348)
300	Miscellaneous fabricated metal products (341, 343, 347, 349)
301	Not specified metal industries

Machinery and computing equipment

310	Engines and turbines (351)
311	Farm machinery and equipment (352)
312	Construction and material handling machines (353)
320	Metalworking machinery (354)
321	Office and accounting machines (3578, 3579)
322	Computers and related equipment (3571-3577)
331	Machinery, except electrical, n.e.c. (355, 356, 358, 359)
332	Not specified machinery

Electrical machinery, equipment, and supplies

340	Household appliances (363)
341	Radio, TV, and communication equipment (365, 366)
342	Electrical machinery, equipment, and supplies, n.e.c. (361, 362, 364, 367, 369)
350	Not specified electrical machinery, equipment, and supplies

Transportation equipment

351	Motor vehicles and motor vehicle equipment (371)
352	Aircraft and parts (372)
360	Ship and boat building and repairing (373)
361	Railroad locomotives and equipment (374)
362	Guided missiles, space vehicles, and parts (376)
370	Cycles and miscellaneous transportation equipment (375, 379)

Professional and photographic equipment, and watches

371	Scientific and controlling instruments (381, 382 exc. 3827)
372	Medical, dental, and optical instruments and supplies (3827, 384, 385)
380	Photographic equipment and supplies (386)
381	Watches, clocks, and clockwork operated devices (387)
390	Toys, amusement, and sporting goods (394)
391	Miscellaneous manufacturing industries (39 exc. 394)
392	Not specified manufacturing industries

TRANSPORTATION, COMMUNICATIONS, AND OTHER PUBLIC UTILITIES**Transportation**

400	Railroads (40)
401	Bus service and urban transit (41, except 412)
402	Taxicab service (412)
410	Trucking service (421, 423)
411	Warehousing and storage (422)
412	U.S. Postal Service (43)

TRANSPORTATION, COMMUNICATIONS, AND OTHER PUBLIC UTILITIES—Con.

420	Water transportation (44)
421	Air transportation (45)
422	Pipe lines, except natural gas (46)
432	Services incidental to transportation (47)
Communications	
440	Radio and television broadcasting and cable (483, 484)
441	Telephone communications (481)
442	Telegraph and miscellaneous communications services (482, 489)
Utilities and sanitary services	
450	Electric light and power (491)
451	Gas and steam supply systems (492, 496)
452	Electric and gas, and other combinations (493)
470	Water supply and irrigation (494, 497)
471	Sanitary services (495)
472	Not specified utilities

WHOLESALE TRADE

Durable Goods

500	Motor vehicles and equipment (501)
501	Furniture and home furnishings (502)
502	Lumber and construction materials (503)
510	Professional and commercial equipment and supplies (504)
511	Metals and minerals, except petroleum (505)
512	Electrical goods (506)
521	Hardware, plumbing and heating supplies (507)
530	Machinery, equipment, and supplies (508)
531	Scrap and waste materials (5093)
532	Miscellaneous wholesale, durable goods (509 exc. 5093)

Nondurable Goods

540	Paper and paper products (511)
541	Drugs, chemicals and allied products (512, 516)
542	Apparel, fabrics, and notions (513)
550	Groceries and related products (514)
551	Farm-product raw materials (515)
552	Petroleum products (517)
560	Alcoholic beverages (518)
561	Farm supplies (5191)
562	Miscellaneous wholesale, nondurable goods (5192-5199)
571	Not specified wholesale trade

RETAIL TRADE

580	Lumber and building material retailing (521, 523)
581	Hardware stores (525)
582	Retail nurseries and garden stores (526)
590	Mobile home dealers (527)
591	Department stores (531)
592	Variety stores (533)
600	Miscellaneous general merchandise stores (539)
601	Grocery stores (541)

RETAIL TRADE—Con.

602	Dairy products stores (545)
610	Retail bakeries (546)
611	Food stores, n.e.c. (542, 543, 544, 549)
612	Motor vehicle dealers (551, 552)
620	Auto and home supply stores (553)
621	Gasoline service stations (554)
622	Miscellaneous vehicle dealers (555, 556, 557, 559)
623	Apparel and accessory stores, except shoe (56, except 566)
630	Shoe stores (566)
631	Furniture and home furnishings stores (571)
632	Household appliance stores (572)
633	Radio, TV, and computer stores (5731, 5734)
640	Music stores (5735, 5736)
641	Eating and drinking places (58)
642	Drug stores (591)
650	Liquor stores (592)
651	Sporting goods, bicycles, and hobby stores (5941, 5945, 5946)
652	Book and stationery stores (5942, 5943)
660	Jewelry stores (5944)
661	Gift, novelty, and souvenir shops (5947)
662	Sewing, needlework and piece goods stores (5949)
663	Catalog and mail order houses (5961)
670	Vending machine operators (5962)
671	Direct selling establishments (5963)
672	Fuel dealers (598)
681	Retail florists (5992)
682	Miscellaneous retail stores (593, 5948, 5993-5995, 5999)
691	Not specified retail trade

FINANCE, INSURANCE, AND REAL ESTATE

700	Banking (60 exc. 603 and 606)
701	Savings institutions, including credit unions (603, 606)
702	Credit agencies, n.e.c. (61)
710	Security, commodity brokerage, and investment companies (62, 67)
711	Insurance (63, 64)
712	Real estate, including real estate-insurance offices (65)

BUSINESS AND REPAIR SERVICES

721	Advertising (731)
722	Services to dwellings and other buildings (734)
731	Personnel supply services (736)
732	Computer and data processing services (737)
740	Detective and protective services (7381, 7382)
741	Business services, n.e.c. (732, 733, 735, 7383-7389)
742	Automotive rental and leasing, without drivers (751)
750	Automobile parking and carwashes (752, 7542)
751	Automotive repair and related services (753, 7549)
752	Electrical repair shops (762, 7694)
760	Miscellaneous repair services (763, 764, 7692, 7699)

PERSONAL SERVICES

761	Private households (88)
762	Hotels and motels (701)
770	Lodging places, except hotels and motels (702, 703, 704)
771	Laundry, cleaning, and garment services (721 exc. part 7219)
772	Beauty shops (723)
780	Barber shops (724)
781	Funeral service and crematories (726)
782	Shoe repair shops (725)
790	Dressmaking shops (part 7219)
791	Miscellaneous personal services (722, 729)

ENTERTAINMENT AND RECREATION SERVICES

800	Theaters and motion pictures (781-783, 792)
801	Video tape rental (784)
802	Bowling centers (793)
810	Miscellaneous entertainment and recreation services (791, 794, 799)

PROFESSIONAL AND RELATED SERVICES

812	Offices and clinics of physicians (801, 803)
820	Offices and clinics of dentists (802)
821	Offices and clinics of chiropractors (8041)
822	Offices and clinics of optometrists (8042)
830	Offices and clinics of health practitioners, n.e.c. (8043, 8049)
831	Hospitals (806)
832	Nursing and personal care facilities (805)
840	Health services, n.e.c. (807, 808, 809)
841	Legal services (81)
842	Elementary and secondary schools (821)
850	Colleges and universities (822)
851	Vocational schools (824)
852	Libraries (823)
860	Educational services, n.e.c. (829)
861	Job training and vocational rehabilitation services (833)
862	Child day care services (part 835)
863	Family child care homes (part 835)
870	Residential care facilities, without nursing (836)
871	Social services, n.e.c. (832, 839)
872	Museums, art galleries, and zoos (84)
873	Labor unions (863)
880	Religious organizations (866)
881	Membership organizations, n.e.c. (861, 862, 864, 865, 869)
882	Engineering, architectural, and surveying services (871)
890	Accounting, auditing, and bookkeeping services (872)
891	Research, development, and testing services (873)
892	Management and public relations services (874)
893	Miscellaneous professional and related services (899)

PUBLIC ADMINISTRATION

900	Executive and legislative offices (911-913)
901	General government, n.e.c. (919)
910	Justice, public order, and safety (92)
921	Public finance, taxation, and monetary policy (93)
922	Administration of human resources programs (94)

PUBLIC ADMINISTRATION—Con.

930 Administration of environmental quality and housing programs (95)
931 Administration of economic programs (96)
932 National security and international affairs (97)

ACTIVE DUTY MILITARY

Armed Forces

940 Army
941 Air Force
942 Navy
950 Marines
951 Coast Guard
952 Armed Forces, Branch not specified
960 Military Reserves or National Guard

EXPERIENCED UNEMPLOYED NOT CLASSIFIED BY INDUSTRY

992 Last worked 1984 or earlier

1 2 CONTROL NUMBER 3 4 SEGMENT TYPE 5a Field Rep. code 5b Letter sent 6a EXTRA UNIT Original unit serial number 6b Sheet ____ Line ____ 6c OFFICE USE ONLY 7 Wave for which Census Card first prepared 8 Form SIPP-11001 (4-79) 9 U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

HOUSEHOLD RECORD (Card ____ of ____)

FILL ITEMS 17-20 FOR ALL PERSONS LIVING OR STAYING HERE

17 ENTRY ADDRESS I.D. 18 PERSON NUMBER Assign 101, 102, etc. for wave 1; 201, 202, etc. for wave 2

19a HOUSEHOLD ROSTER FIRST INTERVIEW AT WAVE 1 ADDRESS - What are the names of all persons living or staying here? Start with the name of the person or one of the persons who leaves, rental this home. Please include middle and maiden names. (Leave one blank space between each part of name.) FIRST INTERVIEW AT MOVER'S NEW ADDRESS for mover's new address - Fill name 17-19a before the interview. Last, First, Middle, Maiden

19b RELATIONSHIP TO REFERENCE PERSON (RP) Ask if not apparent: What is ...'s relationship to (Read name of RP)? Example: Reference person, wife or husband, son, daughter, son-in-law, sister, foster son, partner, lodger, lodger's wife See codes on page 4

20 HOUSEHOLD MEMBER Does ... usually live here? 1-Yes 2-No - Probe for URE

23 DATE ENTERED OR LEFT Complete if instructed by item 21, enter code and date See codes on page 4

24 BIRTH DATE/AGE a. What is ...'s date of birth? Example: 01-20-1983 12-01-1924 Verify age using Flashcard G b. ... is now (Read age) years old, is that correct?

25 PERSON NUMBER OF PARENT Refer to 18 and 19b. If none entered "999"

26a ASK IF 18 OR OLDER MARITAL STATUS Is ... now - Married 1-Sp. Pres. 2-Sp. Abs. 3-Widowed 4-Divorced 5-Separated OR 6-Never married?

26b PERSON NUMBER OF SPOUSE Refer to 18, 19b, and 26a. If none entered "999"

27 DESIGNATED PARENT OR GUARDIAN Fill for "Never married" persons under 18 if no parent, ask: Who in this household is responsible for ...?

28 SEX Ask if not apparent: 1-Male or 2-Female?

29 RACE SHOW FLASH-CARD H What is the race of each person in this household? See codes on page 4

30 ORIGIN SHOW FLASH-CARD I What is the origin or descent of each person in this household? See codes on page 4

21 HOUSEHOLD ROSTER COVERAGE

• WAVE 1 INTERVIEW

21a I have listed (Read names from item 18a). Have I missed ...? If "Yes," for any of the following, ask name and complete item 17-20 above: Any babies or small children? Any lodgers, boarders, or persons you employ who live here? Anyone who usually lives here but is away now - traveling, at school, or in a hospital? Anyone else staying here?

• FIRST INTERVIEW AT MOVER'S NEW ADDRESS

21b I have listed ... (Read names from item 18a). Do you have living at this address, in this house? If NO, ask - Which person did not move here?

21c When did ... move in here? Enter appropriate code and date in item 23

21d Is there anyone else living or staying here now? If YES, ask name and complete items 17-19a, then ask: When did ... begin living here? If moved in before sample person(s), enter code "04" in item 23 and omit date. If moved in at the same time or after sample person(s), enter appropriate code and date in item 23

21e Which of these persons (leave/rents) this home? Assign as reference person in item 18b

• SUBSEQUENT INTERVIEWS

22a I have listed ... (Read names from item 18a). Are all of these persons still living or staying here? If NO, ask: Who no longer lives here? When did ... leave? Enter appropriate code and date left in item 23. Probe, if necessary, for reason left. If entire household moved, mark "No" in item 21g, complete item 23, determine new address (item 34), and end interview

22b Is anyone else living or staying here, including now here babies? If YES, ask name and complete items 17-20 above, then ask: When did ... begin living here? Enter appropriate code and date in item 23. Anyone else?

22 HOUSING UNIT COVERAGE - WAVE 1 INTERVIEW

22a FIELD REPRESENTATIVE CHECK ITEM Unit is: ☐ In a special place - SKIP to 24 above ☐ Not in a special place - ASK 22b

22b Do all persons in this household live OR out together? ☐ Yes ASK 22c ☐ No, neither live nor out together. Fill table I for the person or group of persons not living or eating with RP

22c Does any other household on the property live OR out with this household? ☐ Yes - Redefine the unit to include spaces occupied by all persons who live or eat together. Apply merged unit procedures if appropriate. ☐ No GO TO ITEM 24 ABOVE

31a ASK IF 18 OR OLDER

EDUCATION 31b What is the highest grade or year of regular school ... has ever attended? 00 - Never attended or kindergarten 01-08 - Elementary 09-12 - High school 13-16 - College (Academic)

31c Did ... ever complete that grade (year)? 1-Yes 2-No

31d If "Yes" in 32a, ask: When did ... move to the Armed Forces? See codes on page 4

31e 1st code 2nd code 3rd code

31f 1-Yes 2-No

31g 1-Yes 2-No

31h 1-Yes 2-No

31i 1-Yes 2-No

31j 1-Yes 2-No

31k 1-Yes 2-No

31l 1-Yes 2-No

31m 1-Yes 2-No

31n 1-Yes 2-No

31o 1-Yes 2-No

31p 1-Yes 2-No

31q 1-Yes 2-No

31r 1-Yes 2-No

31s 1-Yes 2-No

31t 1-Yes 2-No

31u 1-Yes 2-No

31v 1-Yes 2-No

31w 1-Yes 2-No

31x 1-Yes 2-No

31y 1-Yes 2-No

31z 1-Yes 2-No

32a ARMED FORCES

32b Social Security Number

32c Social Security Number

32d Social Security Number

32e Social Security Number

32f Social Security Number

32g Social Security Number

32h Social Security Number

32i Social Security Number

32j Social Security Number

32k Social Security Number

32l Social Security Number

32m Social Security Number

32n Social Security Number

32o Social Security Number

32p Social Security Number

32q Social Security Number

32r Social Security Number

32s Social Security Number

32t Social Security Number

32u Social Security Number

32v Social Security Number

32w Social Security Number

32x Social Security Number

32y Social Security Number

32z Social Security Number

33a SOCIAL SECURITY

33b Social Security Number

33c Social Security Number

33d Social Security Number

33e Social Security Number

33f Social Security Number

33g Social Security Number

33h Social Security Number

33i Social Security Number

33j Social Security Number

33k Social Security Number

33l Social Security Number

33m Social Security Number

33n Social Security Number

33o Social Security Number

33p Social Security Number

33q Social Security Number

33r Social Security Number

33s Social Security Number

33t Social Security Number

33u Social Security Number

33v Social Security Number

33w Social Security Number

33x Social Security Number

33y Social Security Number

33z Social Security Number

TRANSCRIPTION ITEMS (Card _____ of _____)

FIELD REPRESENTATIVE INSTRUCTIONS ▶ These columns are to be filled after the interview. Fill a column for each household member listed in Household Roster who is age 15 or older.

C O L.		40 Person number	41 Name								
		Respondent person number		W1	W2	W3	W4	W5	W6	W7	W8
EMPLOYMENT											
Emp. I.D.	42 NAME OF EMPLOYER			W1	W2	W3	W4	W5	W6	W7	W8
1				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus. I.D.	43 NAME OF BUSINESS/FARM			W1	W2	W3	W4	W5	W6	W7	W8
1				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INTERVIEW STATUS											
Line No.	Code	44 PERSON INTERVIEW STATUS		W1	W2	W3	W4	W5	W6	W7	W8
0		Inteligible for interview (code 993)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1		Noninterview - No interview obtained (code 991)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2		Interview - No ISS codes marked below in items 45-47 (code 992)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INCOME											
Line No.	Code	45 INCOME SOURCES (1-56)		W1	W2	W3	W4	W5	W6	W7	W8
3				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		46 ASSETS (100-150)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17		47 SPECIAL INDICATORS		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

34a MOVERS				PGM 4, Cont'd				35 MERGED HOUSEHOLD MATCH TABLE																															
1	Person number(s)	Entire HH moved <input type="checkbox"/> -- If box is marked fill 34b	New telephone number	OFFICE USE ONLY <div style="border: 1px solid black; display: inline-block; padding: 2px;">0054</div>				New person number	PREVIOUS IDENTIFICATION																														
	New address -- Number and street								PSU	Segment	Serial	Sample designation	Entry address ID	Person number																									
	City	State	ZIP Code						(a)	(b)	(c)	(d)	(e)	(f)	(g)																								
	Other identification																																						
34b If entire household moves, try to determine: Is the address within the limits of a city, town, or village? <input type="checkbox"/> Yes -- What is the name? <input type="checkbox"/> No -- Not within the limits of a city, town, or village																																							
							0056	0058	0060	0062	0064	0066	0068																										
							0070	0072	0074	0076	0078	0080	0082																										
							0084	0086	0088	0090	0092	0094	0096																										
							0098	0100	0102	0104	0106	0108	0110																										
							0112	0114	0116	0118	0120	0122	0124																										
							0126	0128	0130	0132	0134	0136	0138																										
							0140	0142	0144	0146	0148	0150	0152																										
							0154	0156	0158	0160	0162	0164	0166																										
2	Person number(s)	New telephone number																																					
	New address -- Number and street																																						
	City	State	ZIP Code																																				
	Other identification			Wave move discovered																																			
3	Person number(s)	New telephone number																																					
	New address -- Number and street																																						
	City	State	ZIP Code																																				
	Other identification			Wave move discovered																																			
4	Person number(s)	New telephone number																																					
	New address -- Number and street																																						
	City	State	ZIP Code																																				
	Other identification			Wave move discovered																																			
5	Person number(s)	New telephone number																																					
	New address -- Number and street																																						
	City	State	ZIP Code																																				
	Other identification			Wave move discovered																																			
CODES FOR 19b 01 -- Reference Person WITH relatives in household 02 -- Reference Person with NO relatives in household 03 -- Husband/Wife 04 -- Natural/Adopted child 05 -- Stepchild 06 -- Foster child 07 -- Grandchild 08 -- Parent 09 -- Brother/Sister 10 -- Other relative of Reference Person 11 -- Non-relative of Reference Person WITH OWN relatives in household 12 -- Partner/Roommate 13 -- Non-relative of Reference Person (other than partner/roommate) with NO OWN relatives in household				ENTERED CODES FOR 23 Entered -- This Wave 01 -- Birth 02 -- Marriage 03 -- Other 04 -- (Use only with item 21d) 13 -- Re-entered sample after missing one or more waves 16 -- From institution 17 -- From Armed Forces barracks 18 -- From outside the country 19 -- Due to separation or divorce Entered -- Should have been added in a previous wave 21 -- Birth 22 -- Marriage 23 -- Other 24 -- Sample person added during second interview period 36 -- From institution 37 -- From Armed Forces barracks 38 -- From outside the country 39 -- Due to separation or divorce				LEFT CODES FOR 23 Left -- This Wave 05 -- Deceased 06 -- Institutionalized 07 -- Living in Armed Forces barracks 08 -- Moved outside of country 09 -- Separation or divorce 10 -- Person number 201 + no longer living with sample person 11 -- Other 12 -- Use this code if instructed by your office 99 -- Listed in error Left -- Should have been deleted in a previous wave 25 -- Deceased 26 -- Institutionalized 27 -- Living in Armed Forces barracks 28 -- Moved outside of country 29 -- Separation or divorce 30 -- 201 + person no longer living with sample person 31 -- Other				CODES FOR 30 01 -- German 02 -- English 03 -- Irish 04 -- French 05 -- Italian 06 -- Scottish 07 -- Polish 08 -- Dutch 09 -- Swedish 10 -- Norwegian 11 -- Russian 12 -- Ukrainian 13 -- Welsh 14 -- Mexican-American 15 -- Chinese 16 -- Mexican 17 -- Puerto Rican 18 -- Cuban 19 -- Central or South American (Spanish speaking) 20 -- Other Spanish 21 -- Afro-Amer. (Black or Negro) 30 -- Another group not listed 39 -- Don't know				CODES FOR 29 1 -- White 2 -- Black 3 -- American Indian, Eskimo or Aleut 4 -- Asian or Pacific Islander 5 -- Other -- Specify below -- <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">Person No.</th> <th style="width: 50%;">Specify race</th> </tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>				Person No.	Specify race																		
Person No.	Specify race																																						
CODES FOR 32b If more than one code applies, start with lowest number and enter codes in ascending order. Thus, if person served in Vietnam and in Korea enter "1", and then "2". 1 -- Vietnam Era (Aug. '64 -- April '75) 2 -- Korean Conflict (June '50 -- Jan. '53) 3 -- World War II (Sept. '40 -- July '47) 4 -- World War I (Apr. '17 -- Nov. '18) 5 -- May 1975 to August 1980 6 -- September 1980 or later 7 -- Other Service (All other periods)																																							
39 FUTURE CONTACTS (Continued) -- Read flashcard T and fill 39c. Verify and update for waves 2 -- 8.				39 FUTURE CONTACTS (Continued) -- Read flashcard T and fill 39c. Verify and update for waves 2 -- 8.				39 FUTURE CONTACTS (Continued) -- Read flashcard T and fill 39c. Verify and update for waves 2 -- 8.																															
39c Please give me the name, address, and telephone number of a close relative or friend who would know how to reach you if we are unable to contact you.				39c Please give me the name, address, and telephone number of a close relative or friend who would know how to reach you if we are unable to contact you.				39c Please give me the name, address, and telephone number of a close relative or friend who would know how to reach you if we are unable to contact you.																															
Name		Relationship to person no. _____		Name		Relationship to person no. _____		Name		Relationship to person no. _____																													
Address (No., St., Apt. No., City, State, ZIP Code)		Telephone number (include area code)		Address (No., St., Apt. No., City, State, ZIP Code)		Telephone number (include area code)		Address (No., St., Apt. No., City, State, ZIP Code)		Telephone number (include area code)																													

Section 5 - TOPICAL MODULES (Continued)

Part C - SCHOOL ENROLLMENT AND FINANCING

STATEMENT E

The next few questions are about school enrollment and financing.

1. Was . . . enrolled in school anytime during the past 12 months? (Include any regular school, such as elementary, high school, or college, or any vocational, technical or business school.)

9610

- 1 ☐ Yes
2 ☐ No - SKIP to Check Item C1, page 64

2. At what level or grade was . . . enrolled? (If enrolled at more than one level in the past 12 months, check level in which the greatest amount of time was spent.)

9612

- 1 ☐ Elementary grades 1-8
2 ☐ High school grades 9-12
3 ☐ College year 1
4 ☐ College year 2
5 ☐ College year 3
6 ☐ College year 4
7 ☐ College year 5
8 ☐ College year 6+
9 ☐ Vocational school
10 ☐ Technical school
11 ☐ Business school
12 ☐ Other or DK

CHECK ITEM T21

Was . . . enrolled in elementary or high school?

9614

- 1 ☐ Yes
2 ☐ No - SKIP to 4

3. Was . . . enrolled in a public school? (Mark "Yes" if the school at which . . . spent the greatest amount of time was public.)

9616

- 1 ☐ Yes - SKIP to Check Item C1, page 64
2 ☐ No

4. During the past 12 months -

a. What was the total cost of . . . 's tuition and fees?

9618

\$. 00

- x3 ☐ None
x1 ☐ DK

b. What was the total cost of . . . 's books and supplies?

9620

\$. 00

- x3 ☐ None
x1 ☐ DK

c. Did . . . live away from home while attending school?

9622

- 1 ☐ Yes
2 ☐ No - SKIP to 5a

d. What was the total cost for room and board while away at school?

9624

\$. 00

- x3 ☐ None
x1 ☐ DK

NOTES

Section 5 – TOPICAL MODULES (Continued)

Part C – SCHOOL ENROLLMENT AND FINANCING (Continued)

5a. Please look at card DD in your pamphlet and tell me if . . . received any of these types of educational assistance during the past 12 months?

Anything else?

(1) The GI Bill?

(2) Other Veterans' Educational Assistance Programs? (Include survivors and dependents, vocational rehabilitation and post-Vietnam veterans' assistance.)

(3) College Work Study Program?

(4) A Pell Grant?

(5) A Supplemental Educational Opportunity Grant (SEOG)?

(6) A National Direct Student Loan (NDSL) (or Perkins Loan)?

(7) A guaranteed student loan, such as a Parent Loan for Undergraduate Students (PLUS), Stafford Loan, or Supplemental Loan for Students (SLS)?

(8) A JTPA Training Program?

(9) Employer assistance?

(10) A fellowship or scholarship?

(11) A tuition reduction?

(12) Anything else (other than assistance from relatives and friends)?

9626 x3 ☐ None –
SKIP to
Check
Item C1

9628 1 ☐ Received

9632 1 ☐ Received

9636 1 ☐ Received

9640 1 ☐ Received

9644 1 ☐ Received

9648 1 ☐ Received

9652 1 ☐ Received

9656 1 ☐ Received

9660 1 ☐ Received

9664 1 ☐ Received

9668 1 ☐ Received

9672 1 ☐ Received

5b. How much did . . . receive?

9630 \$. 00
x1 ☐ DK

9634 \$. 00
x1 ☐ DK

9638 \$. 00
x1 ☐ DK

9642 \$. 00
x1 ☐ DK

9646 \$. 00
x1 ☐ DK

9650 \$. 00
x1 ☐ DK

9654 \$. 00
x1 ☐ DK

9658 \$. 00
x1 ☐ DK

9662 \$. 00
x1 ☐ DK

9666 \$. 00
x1 ☐ DK

9670 \$. 00
x1 ☐ DK

9674 \$. 00
x1 ☐ DK

NOTES

APPENDIX C

SIPP WHAT'S AVAILABLE Ordering Information

Various working papers, Statistical Briefs and other products are available free of charge. To receive a list of these products, send your request to:

Data User Services Division
Microdata Access Branch
Bureau of the Census
Washington, DC 20233

You may also request products by phone. Please contact Carmen Campbell on (301) 763-2005.

APPENDIX D

Machine-Readable Data Dictionary Layout

Data dictionary lines are 46 characters. The character on the first position determines the type of lines. Each variable may have the following lines:

1. COMMENTS (" * ") lines
2. DATA DICTIONARY (" D ") ; line and DATA DESCRIPTION
3. UNIVERSE (" U ") lines
4. VALUE DESCRIPTION lines
5. One blank line at the end

FORMAT

"*" LINE COMMENTS

- a. " * " in the first position indicates that this is a comment line. This line can appear any place in the dictionary. It will be used for short comments or to nullify any value codes.
- b. " ** " in the first two positions is also comments but it has additional meaning. It indicates this is a block of comments which will be applied to several variables. The first line of this block will have the COMMENT NO. so that subsequent variable can refer back to this comment block.

"D" LINE DATA DICTIONARY

This line contains the following information:

ID	"D"	COL	1- 1
NAME	Variable name	COL	3-10
SIZE	Size of data field	COL	14-15
BEGIN	Begin position of data field	COL	19-22
TYPE	Character variable indicator "CHAR" or blanks if numeric variable	COL	26-29
DEC	Implied decimal places	COL	33-34
IND	TABLE variable indicator "TABLE" with "(aa)" for its dimension; otherwise blanks	COL	38-46

Text describing the variable will follow this "D" line. Use COL. 6-46 and repeat as many lines as necessary.

"U" LINE UNIVERSE DEFINITION

This line contains the universe definition. Use COL. 3-46 and repeat as many lines as necessary.

ID	" U "	COL	1- 1
DESCRIPTION	Universe description	COL	3-46

(For continuation use COL. 3-46 and repeat as many lines as necessary.)

"V" LINE VALUE DEFINITION

ID	" V "	COL	1- 1
VALUE	Value code-right justified	COL	3-12
	" "	COL	14
DESCRIPTION	Value description	COL	15-46

(Repeat COL. 14-46 format for continued value description.)

APPENDIX E

User Notes

This section is reserved for any information relevant to the SIPP 1991 Panel, Wave 8 Educational Financing/Enrollment Topical Module Microdata File that indicates specific problems with the data, or that becomes available after the file is released. Any such information should be filed behind this page.

User Notes will be sent to all users who (1) purchased their file (or technical documentation) from the Census Bureau and (2) returned the coupon following the title page.