Survey of Program Dynamics 1999 Food Security Status File
Technical Documentation and User Notes

Data File and Documentation Prepared by
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Background

The Survey of Program Dynamics (SPD) 1999 Food Security Status File contains summary food security status information for households interviewed in the 1999 SPD. The food security status variables were calculated based on responses to the questions in the U.S. Household Food Security Survey Module, which was included in the SPD. The SPD 1999 Food Security Status File matches to the main SPD 1999 Cross-Sectional File at the household level.

The SPD 1999 Food Security Status File is intended to be used in conjunction with the SPD 1999 Cross-Sectional File produced by the U.S. Census Bureau. Currently, the SPD 1999 Cross-sectional File is available only through the Census Bureau's Dataferrett system. After matching to the SPD 1999 Cross-Sectional File, the combined data file can also be matched to all other years' SPD data files and food security status files and to SIPP data for the 1992 and 1993 panels from which the SPD sample households were selected. The SPD 1999 Cross-Sectional File contains demographic, economic, and social characteristics data for each member of interviewed households. Demographic data refers to the time of interview in mid-1999. Income and program participation information generally refers to the preceding year. The food security and hunger questions refer to the 12 months prior to the date of interview in mid-1999.

SPD data and further information on the SPD are available from the Census Bureau at:
http://www.bls.census.gov/spd/

Technical Description

The SPD 1999 Food Security Status File is an ASCII file containing 20,089 records. The length of each record is 26 characters. The data dictionary is included below as Appendix A. SAS code to read the data file and create a SAS file is included as Appendix B. Frequency tabulations of each of the food security scale and food security status variables are included as Appendix C.

Matching to the SPD 1999 Cross-Sectional File

The SPD 1999 Food Security Status File contains one record for household in the SPD 1999 Cross-Sectional File. It matches to the SPD 1999 Cross-Sectional SPD data file by IHHKEY99, a unique household identifier provided in the SPD 1999 Cross-Sectional File and based on the variables SIPP_PNL, PP_ID, ADDIDE9. The SPD 1999 Food Security Status File is sorted by IHHKEY99, but the SPD 1999 Cross-Sectional File must be sorted prior to merging.

Not-in-Universe Records and Households with Missing Food Security Status

Of the 20,089 unique current households in the SPD 1999 Food Security Status File, 3,460 are non-interview households (OUTCOMR9 >= 213) and have no member with positive weight (SPDCSW99). Records for these 3,460 households are included in the Food Security Status File with all food security status variables coded -1 (not in universe). An additional 775 households either broke off the interview before the preliminary food security screener variable (FDSUFFU9) or did not provide a valid response to any of the 10 adult-referenced food security questions. The food security status of these households is unknown, and the food security scale and food security status variables for these households are coded -9.

Food Security Status Variables

IMPORTANT NOTE: Due to a problem in the computerized interviewing instrument in the 1999 survey, the child-referenced food security items were inadvertently skipped for many households with children. The children's food security scale and the 18-item household food security scale could not be calculated for those households and are therefore not provided for any households in the SPD 1999 Food Security Status File.

Food security status variables were calculated based on the 10 adult- and household-referenced items in the U.S. Household Food Security Survey Module (FOOD01U9 through FOOD03U9 and FOOD07U9 through FOOD13U9). Calculations were carried out in accordance with the standard methods described in *Measuring Household Food Security, Revised 2000* (Bickel et al, 2000, available: *http://www.fns.usda.gov/oane/*). The methods normally used for households without children were applied to all households because the child-referenced items were not available for many households with children. The Adult Food Security Scale is directly comparable with the Adult Food Security Scale provided in all other years' SPD food security status files, but is not directly comparable with the 18-item Household Food Security Scale provided in other years' files. Assessment of the food security items using statistical methods based on the Rasch measurement model indicated that model fit and relative item severities were sufficiently similar to those in the 1998 Current Population Survey Food Security Supplement, to justify use of the standard methods.

Four food security summary variables are provided, one indicating screening status, and three indicating food security status on the Adult Food Security Scale. The Adult Food Security Scale is based on the 10 household and adult items in the 18 item scale. For households without children it is identical to the Household Food Security Scale. For households with children, it is calculated using the same methods as those used to calculate the Household Food Security Scale for households without children. The variables are described conceptually here, and additional detail is provided in the data dictionary in Appendix A.

HFS: Food Security Screening Status (FSSCRNR9) identifies the screening status of households relative to the food security module. To reduce respondent burden and avoid awkward interview situations, households with high income who gave no indication of food stress on the preliminary screening question (FDSUFFU9) were skipped over the rest of the food security module and deemed to be food secure. This variable is needed for analysis of individual items in the module, but is not needed if only the food security status variables are used.

HFS: Adult Food Security Raw Score (FSRAADR9) is a count of the number of food security items in the Adult Food Security Scale affirmed by the household respondent. This score determines the adult food security scale score and food security status.

HFS: Adult Food Security Scale Score (FSSCADR9) is a measure of the severity of food insecurity or hunger experienced by adults in the household in the previous 12 months, based on the Adult Food Security Scale. This is a continuous, interval-level measure based on the Rasch measurement model and is appropriate for associative analyses such as correlation, regression, or analysis of variance. It is on the standard computational metric described in *Measuring Household Food Security, Revised 2000.* Valid values range from 1.72 to 11.05, with higher values indicating more severe food-access problems. Technically, the scale score is undefined for households that affirmed no items in the scale. These households are food secure, but the appropriate size of the interval from the score of households that affirmed one item is not known and varies from household to household. The variable is coded -6 for households that affirmed no items (or were screened out and deemed to be food secure) to remind users that these cases require special consideration in analyses.

HFS: Adult Food Security Status Category (FSSTADR9) is a categorical measure of food security status based on the Adult Food Security Scale that identifies households as food secure, food insecure without hunger, or food insecure with hunger. This variable is appropriate for comparing prevalence rates of food insecurity and hunger across subpopulations and for analyses in which a categorical measure of food security is wanted.

Appendix A.
Data Dictionary

```
*****************************************
*    HOUSEHOLD MATCH VARIABLE           *
*****************************************
 DATA      SIZE   BEGIN
D IHHKEY99   15     1
T SC: Unique household identifier 99
     Unique household identifier for use as a
     match key for households. Characters 1-3
     SIPP Panel B12 (1992), B13 (1993)
     Characters 4-12 PP_ID Characters 13-15
     Current Address ID
U All Households

D blank       1     16
T SC: Filler, no data
     Filler
U All Households

*****************************************
* HOUSEHOLD FOOD SECURITY SCALE VARIABLES  *
*****************************************

D FSSCRNR9    2     17
T HFS: Food Security Screening Status
      Screening status, food security module
U Interviewed households
V     1    .Did not pass preliminary screen - assumed food secure
V     2    .Skip out after Block 1
V     3    .Skip out after Block 2
V     4    .Entered Block 3
V    -1    .Not In Universe (not interviewed)
V    -9    .Missing--no valid food security items

*****************************************
*  ADULT FOOD SECURITY SCALE VARIABLES     *
*****************************************

D FSRAADR9    2     19
T HFS: Adult Food Security Raw Score
      Adult food security raw score (number of affirmative responses)
U Interviewed households
V     0    .No affirmative responses, or screened out
V    1:10  .Number of affirmative responses
V    -1    .Not In Universe (not interviewed)
V    -9    .Missing--no valid food security items

D FSSCADR9    4     21
T HFS: Adult Food Security Scale Score
      Adult food security scale score (Rasch)
         (2 implied decimal places)
U Interviewed households
V     -6   .No affirmative responses, or screened out
V          .scale score undefined
V  1.72:
V   11.05  .Number
V    -1    .Not In Universe (not interviewed)
V    -9    .Missing--no valid food security items

D FSSTADR9    2     25
T HFS: Adult Food Security Status Category
      Adult food security status category
U Interviewed households
V     1    .Food Secure
V     2    .Food Insecure without Hunger
V     3    .Food Insecure with Hunger
V    -1    .Not In Universe (not interviewed)
V    -9    .Missing--no valid food security items
```

Appendix B
SAS Program to Read SPD 1999 Food Security Status Data File

```
*SAS program to read public-use SPD 1999 food security status data file;

data temp; infile 'd:\foodsecu\spd\spd1999\spd99fs1.dat' lrecl=26;
*modify path and filename in accordance with file location in your system;

input
@1 ihhkey99 $ 15.    /* unique household identifier based on SIPP_PNL, PP_ID, ADDIDE9 */
@17 fsscrnr9   2.    /* food security module screening status                         */
@19 fsraadr9   2.    /* adult food security raw score                                 */
@21 fsscadr9   4.    /* adult food security scale score (interval-level measure)      */
@25 fsstadr9   2.;    /* adult food security status category (categorical measure)     */
if fsscadr9 gt 0 then fsscadr9=fsscadr9/100; *to restore the 2 decimal places;
run;

proc freq data=temp; tables fsscrnr9--fsstadr9;
title1 'Run 14: HH 1999, wt no';
run;


*This SAS data set will now match to the SPD 1999 Cross-Sectional File by IHHKEY99;
*The 4 food security variables are stored without leading zeros;
```

Appendix C.
Frequencies of Variables in SPD 1999 Food Security Data File

The FREQ Procedure

fsscrnr9	Frequency	Percent	Cumulative Frequency	Cumulative Percent
-9	775	3.86	775	3.86
-1	3460	17.22	4235	21.08
1	8065	40.15	12300	61.23
2	5178	25.78	17478	87.00
3	1609	8.01	19087	95.01
4	1002	4.99	20089	100.00

fsraadr9	Frequency	Percent	Cumulative Frequency	Cumulative Percent
-9	775	3.86	775	3.86
-1	3460	17.22	4235	21.08
0	13272	66.07	17507	87.15
1	681	3.39	18188	90.54
2	529	2.63	18717	93.17
3	535	2.66	19252	95.83
4	182	0.91	19434	96.74
5	147	0.73	19581	97.47
6	157	0.78	19738	98.25
7	144	0.72	19882	98.97
8	107	0.53	19989	99.50
9	30	0.15	20019	99.65
10	70	0.35	20089	100.00

fsscadr9	Frequency	Percent	Cumulative Frequency	Cumulative Percent
-9	775	3.86	775	3.86
-6	13272	66.07	14047	69.92
-1	3460	17.22	17507	87.15
1.72	681	3.39	18188	90.54
3.1	529	2.63	18717	93.17
4.23	535	2.66	19252	95.83
5.23	182	0.91	19434	96.74
6.16	147	0.73	19581	97.47
7.07	157	0.78	19738	98.25
8	144	0.72	19882	98.97
8.98	107	0.53	19989	99.50
10.15	30	0.15	20019	99.65
11.05	70	0.35	20089	100.00

fsstadr9	Frequency	Percent	Cumulative Frequency	Cumulative Percent
-9	775	3.86	775	3.86
-1	3460	17.22	4235	21.08
1	14482	72.09	18717	93.17
2	864	4.30	19581	97.47
3	508	2.53	20089	100.00