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NOTE: SAS (r) Proprietary Software Release 8.2 (TS2M0)
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NOTE: This session is executing on the WIN_PRO platform.

NOTE: This installation is running Base SAS hot fix bundle 82BX08.

NOTE: AUTOEXEC processing beginning; file is C:\PROGRA~1\SASINS~1\SAS\V8\autoexec.sas.

```
1 ** C:\PROGRAM FILES\SAS INSTITUTE\SAS\V8\AUTOEXEC.SAS ;  
2  
3 OPTIONS LS= 132 PS= 70 MERGENOBY=ERROR MSGLEVEL=i;
```

NOTE: AUTOEXEC processing completed.

```
1 /*****\  
2  
3 PROGRAM: C:\MEPS\PROG\EXAMPLE_E4.SAS  
4  
5 DESCRIPTION: THIS EXAMPLE SHOWS HOW TO COMPUTE FAMILY-LEVEL  
6 ESTIMATES, USING THE MEPS DEFINITION OF FAMILY  
7 RATHER THAN THE CPS DEFINITION.  
8  
9 SEE SECTION 3.3 OF THE DOCUMENTATION FOR HC-060  
10 (THE 2001 MEPS FILL-YEAR FILE).  
11  
12 THIS PROGRAM GENERATES THE FOLLOWING FAMILY-LEVEL  
13 ESTIMATES:  
14 (1) MEAN NUMBER OF PERSONS PER FAMILY.  
15 (2) 2001 MEAN TOTAL HEALTHCARE EXPENSES PER  
16 FAMILY.  
17 (3) 2001 MEAN TOTAL HEALTHCARE EXPENSES PER  
18 FAMILY SIZE.  
19  
20 INPUT FILE: (1) C:\MEPS\DATA\H60.SAS7BDAT  
21 -- 2001 MEPS FULL-YEAR FILE  
22  
23 \*****/  
24  
25 LIBNAME CMEPS V8 'C:\MEPS\DATA' ;  
NOTE: Libref CMEPS was successfully assigned as follows:  
Engine: V8  
Physical Name: C:\MEPS\DATA
```

```
26  
27 FOOTNOTE 'PROGRAM: C:\MEPS\PROG\EXAMPLE_E4.SAS';  
28  
29 TITLE1 'AHRQ MEPS DATA USERS WORKSHOP (ESTIMATION) -- NOV/DEC 2004';  
30 TITLE2 'COMPUTING FAMILY-LEVEL ESTIMATES';  
31 TITLE3 ' ' ;  
32  
33 /***** THIS DATA STEP READS IN THE REQUIRED VARIABLES FROM THE *****/  
34 /***** FULL-YEAR FILE. *****/  
35
```

```
36 DATA H60;
37 LENGTH DUIDFAMY $6 ;
38 SET CMEPS.H60 (KEEP= DUID FAMIDYR DUPERSID FAMWT01F
39 VARSTR01 VARPSU01 FAMRFPYR FAMSZEYR
40 TOTEXP01);
41 DUIDFAMY=PUT(DUID,Z5.)||TRIM(FAMIDYR);
42 RUN;
```

NOTE: There were 33556 observations read from the data set CMEPS.H60.

NOTE: The data set WORK.H60 has 33556 observations and 10 variables.

43

```

44 /***** CREATE A FAMILY-LEVEL FILE (ONE RECORD PER FAMILY) *****/
45 /***** AFTER SUMMING TOTAL AND OUT-OF-POCKET EXPENSES TO *****/
46 /***** THE FAMILY LEVEL. *****/
47
48 /***** THE FAMILY-LEVEL OUTPUT FILE *FAM_H60* IS SUBSET *****/
49 /***** TO FAMILIES WITH A POSITIVE WEIGHT (FAMWT01F). *****/
50
51 PROC SORT DATA= H60;
52 BY DUIDFAMY;
53 RUN;

```

NOTE: SAS sort was used.

NOTE: There were 33556 observations read from the data set WORK.H60.

NOTE: The data set WORK.H60 has 33556 observations and 10 variables.

```

54
55 DATA FAM_H60 (DROP= TOTEXP01) H60_CHK;
56 SET H60;
57 BY DUIDFAMY;
58 IF FIRST.DUIDFAMY
59 THEN FAMTOT01 = 0;
60 FAMTOT01+TOTEXP01;
61 LABEL FAMTOT01 = 'TOTAL EXPENSES (FAMILY)';
62 IF (LAST.DUIDFAMY) AND (FAMWT01F > 0)
63 THEN OUTPUT FAM_H60;
64 OUTPUT H60_CHK;
65 RUN;

```

NOTE: There were 33556 observations read from the data set WORK.H60.

NOTE: The data set WORK.FAM_H60 has 12852 observations and 10 variables.

NOTE: The data set WORK.H60_CHK has 33556 observations and 11 variables.

```

66
67 TITLE4 'FREQUENCY COUNT OF FAMILY SIZE VARIABLE *FAMSZEYR*';
68 TITLE5 'UNWEIGHTED';
69
70 PROC FREQ DATA= FAM_H60;
71 TABLES FAMSZEYR / LIST MISSING;
72 RUN;

```

NOTE: There were 12852 observations read from the data set WORK.FAM_H60.

NOTE: The PROCEDURE FREQ printed page 1.

```

73
74 TITLE4 'SAMPLE PRINT OF 5 MEPS FAMILIES';
75 TITLE5 'SHOWING HOW TOTEXP01 IS SUMMED TO FAMILY-LEVEL';
76 TITLE6 '(LAST ROW OF *FAMTOT01* COLUMN SHOWS FAMILY TOTALS)';
77 TITLE7 'PERSON-LEVEL OUTPUT (PRE-SELECTED FAMILIES)';
78
79 PROC PRINT DATA= H60_CHK NOOBS;
80 BY DUIDFAMY;
81 VAR DUPERSID TOTEXP01 FAMTOT01 ;
82 WHERE DUIDFAMY IN ('40001A', '40006A', '40007A',
83 '40010A', '40011A');

```

84 RUN;

NOTE: There were 17 observations read from the data set WORK.H60_CHK.
 WHERE DUIDFAMY in ('40001A', '40006A', '40007A', '40010A', '40011A');
NOTE: The PROCEDURE PRINT printed page 2.

85
86 TITLE5 'SHOWING VARIABLES AFTER SUMMING TO FAMILY-LEVEL';
87 TITLE6 'FAMILY-LEVEL OUTPUT (PRE-SELECTED FAMILIES)';
88
89 PROC PRINT DATA= FAM_H60 NOOBS;
90 VAR DUIDFAMY FAMTOT01 ;
91 WHERE DUIDFAMY IN ('40001A', '40006A', '40007A',
92 '40010A', '40011A');

3

The SAS System

13:22 Saturday, November 20, 2004

93 RUN;

NOTE: There were 5 observations read from the data set WORK.FAM_H60.

WHERE DUIDFAMY in ('40001A', '40006A', '40007A', '40010A', '40011A');

NOTE: The PROCEDURE PRINT printed page 3.

94

95 TITLE4 ' ';

96

97 PROC SURVEYMEANS DATA= FAM_H60 NOBS SUMWGT MEAN STDERR CLM;

98 VAR FAMSZEYR FAMTOT01 ;

99 STRATA VARSTR01;

100 CLUSTER VARPSU01;

101 WEIGHT FAMWT01F;

102 RUN;

NOTE: There were 12852 observations read from the data set WORK.FAM_H60.

NOTE: The PROCEDURE SURVEYMEANS printed page 4.

103

104 PROC FORMAT;

105 VALUE FAMF

106 1 = '1'

107 2 = '2'

108 3 = '3'

109 4 = '4'

110 5-HIGH = '5+';

NOTE: Format FAMF has been output.

111 RUN;

112

113 TITLE5 'TOTAL HEALTHCARE EXPENSES PER FAMILY SIZE';

114

115 PROC SURVEYMEANS DATA= FAM_H60 NOBS SUMWGT MEAN STDERR CLM;

116 VAR FAMTOT01 ;

117 STRATA VARSTR01;

118 CLUSTER VARPSU01;

119 WEIGHT FAMWT01F;

120 DOMAIN FAMSZEYR;

121 FORMAT FAMSZEYR FAMF. ;

122 RUN;

NOTE: Only one cluster in a stratum in domain FAMSZEYR for variable(s) FAMTOT01. The variance of FAMTOT01 in that stratum is estimated by zero.

NOTE: There were 12852 observations read from the data set WORK.FAM_H60.

NOTE: The PROCEDURE SURVEYMEANS printed page 5.

123

124

125

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414

FREQUENCY COUNT OF FAMILY SIZE VARIABLE *FAMSZEYR*
UNWEIGHTED

The FREQ Procedure

SIZE OF RESPONDING ANNUALIZED FAMILY

FAMSZEYR	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	3,859	30.0	3,859	30.0
2	3,703	28.8	7,562	58.8
3	1,963	15.3	9,525	74.1
4	1,875	14.6	11,400	88.7
5	910	7.1	12,310	95.8
6	329	2.6	12,639	98.3
7	124	1.0	12,763	99.3
8	56	0.4	12,819	99.7
9	17	0.1	12,836	99.9
10	8	0.1	12,844	99.9
11	3	0.0	12,847	100.0
12	2	0.0	12,849	100.0
13	2	0.0	12,851	100.0
14	1	0.0	12,852	100.0

SAMPLE PRINT OF 5 MEPS FAMILIES
SHOWING HOW TOTEXP01 IS SUMMED TO FAMILY-LEVEL
(LAST ROW OF *FAMTOT01* COLUMN SHOWS FAMILY TOTALS)
PERSON-LEVEL OUTPUT (PRE-SELECTED FAMILIES)

----- DUIDFAMY=40001A -----

DUPERSID	TOTEXP01	FAMTOT01
40001013	2130	2130
40001020	860	2990

----- DUIDFAMY=40006A -----

DUPERSID	TOTEXP01	FAMTOT01
40006015	3880	3880
40006022	200	4080
40006039	0	4080
40006046	0	4080

----- DUIDFAMY=40007A -----

DUPERSID	TOTEXP01	FAMTOT01
40007015	1361	1361
40007046	241	1602
40007054	547	2149
40007070	236	2385

----- DUIDFAMY=40010A -----

DUPERSID	TOTEXP01	FAMTOT01
40010015	1896	1896
40010022	887	2783
40010039	2477	5260
40010046	224	5484

----- DUIDFAMY=40011A -----

DUPERSID	TOTEXP01	FAMTOT01
40011013	1015	1015
40011020	1285	2300
40011037	182	2482

SAMPLE PRINT OF 5 MEPS FAMILIES
SHOWING VARIABLES AFTER SUMMING TO FAMILY-LEVEL
FAMILY-LEVEL OUTPUT (PRE-SELECTED FAMILIES)

DUIDFAMY	FAMTOT01
40001A	2990
40006A	4080
40007A	2385
40010A	5484
40011A	2482

The SURVEYMEANS Procedure

Data Summary

Number of Strata	145
Number of Clusters	557
Number of Observations	12852
Sum of Weights	118795584

Statistics

Variable	Label	N	Sum of Weights	Mean	Std Error of Mean	Lower 95% CL for Mean	Upper 95% CL for Mean
FAMSZEYR	SIZE OF RESPONDING ANNUALIZED FAMILY	12852	118795584	2.375140	0.017294	2.341145	2.409135
FAMTOT01	TOTAL EXPENSES (FAMILY)	12852	118795584	6029.086613	131.293064	5770.998771	6287.174456

TOTAL HEALTHCARE EXPENSES PER FAMILY SIZE

The SURVEYMEANS Procedure

Data Summary

Number of Strata	145
Number of Clusters	557
Number of Observations	12852
Sum of Weights	118795584

Statistics

Variable	Label	N	Sum of Weights	Mean	Std Error of Mean	Lower 95% CL for Mean	Upper 95% CL for Mean
FAMTOT01	TOTAL EXPENSES (FAMILY)	12852	118795584	6029.086613	131.293064	5770.998771	6287.174456

Domain Analysis: FAMSZEYR

FAMSZEYR	Variable	Label	N	Sum of Weights	Mean	Std Error of Mean	Lower 95% CL for Mean	Upper 95% CL for Mean
1	FAMTOT01	TOTAL EXPENSES (FAMILY)	3859	40733296	4190.751776	215.326050	3767.477050	4614.026502
2	FAMTOT01	TOTAL EXPENSES (FAMILY)	3703	35224947	7404.600169	277.154001	6859.787854	7949.412484
3	FAMTOT01	TOTAL EXPENSES (FAMILY)	1963	16916015	6616.021405	268.455865	6088.307352	7143.735458
4	FAMTOT01	TOTAL EXPENSES (FAMILY)	1875	15314857	6075.289280	278.081209	5528.662096	6621.916464
5+	FAMTOT01	TOTAL EXPENSES (FAMILY)	1452	10606468	7518.070399	389.183667	6753.042504	8283.098293