

**APPENDIX D**  
**CONSTRUCTION OF ANALYSIS FILE**

This appendix describes the analysis file created for the Emergency Food Assistance System (EFAS) study conducted by Mathematica Policy Research (MPR) for the U.S. Department of Agriculture Economic Research Service (ERS). The file and its derivations are described in sufficient detail to provide readers with additional background for the major report from the study. The discussion below assumes a basic knowledge of the data collection operations conducted for the study, as detailed in Appendix A.

We begin the file documentation by providing an overview of the file creation process. Subsequent sections discuss issues related to editing and constructed variables.

## FILE DEVELOPMENT

Fig. 1 summarizes the file creation activities undertaken for EFAS. Each component of the figure is numbered for convenient reference. One analysis file is produced at the end of file processing.

### Preliminary review and application of supplementary data

The file development process begins with obtaining the final survey CATI input data set EFAS\_CERT.DAT (box 1), containing the raw data from the telephone interviewing process. In Step 2, the file is converted to a SAS dataset, and frequencies and means are produced to permit checking of the CATI interview skip logic and respondents' answers to questions. Missing values in the SAS dataset are set to reflect skip logic and respondent refusal to answer questions and lack of knowledge. The file resulting from this process is TEFAS.SD2 (box 3).

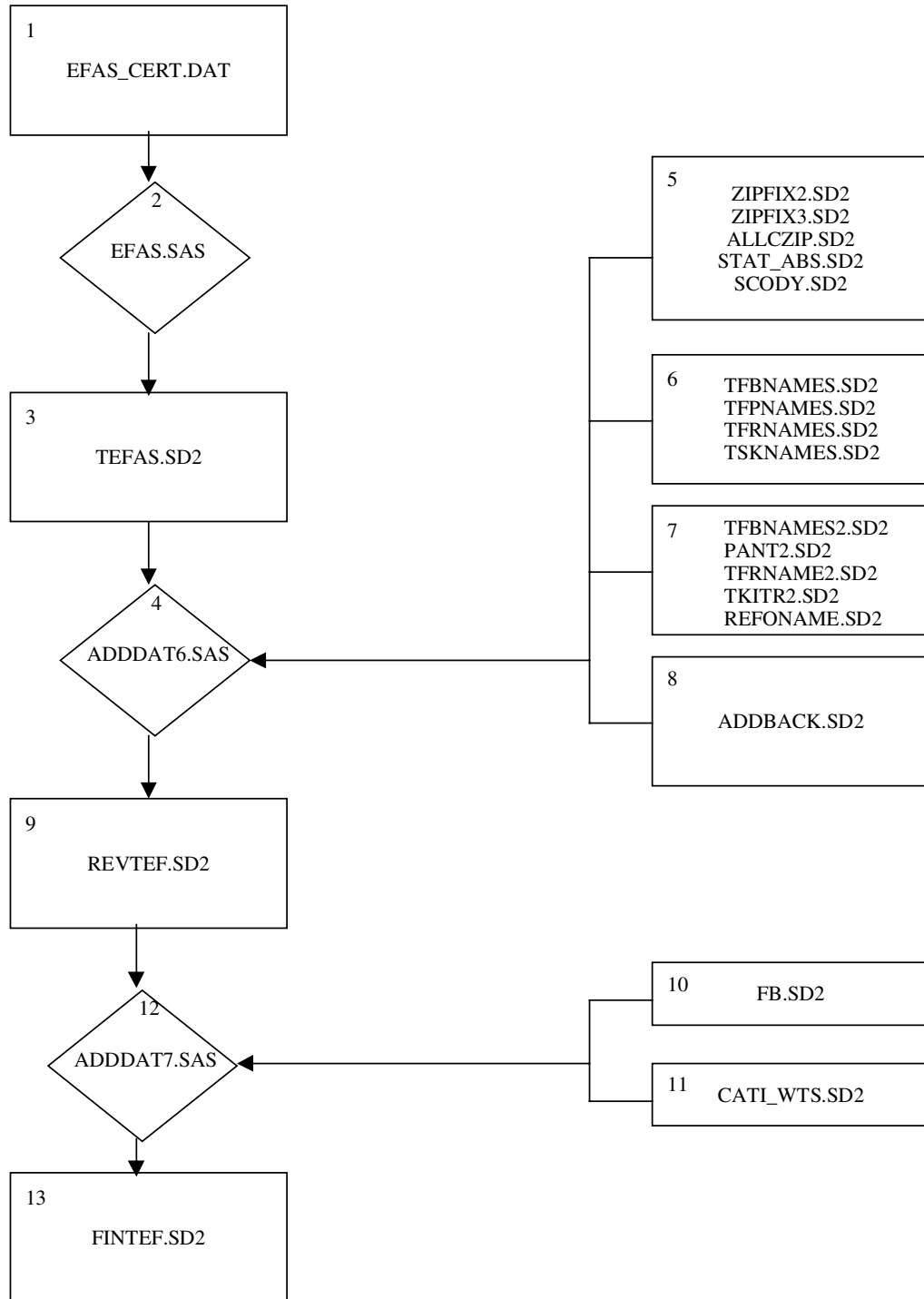
Answers to questions in the survey are generally applied to a predetermined range of answers. When the client responded with a refusal or "don't know," the interviewer entered an appropriate, special missing value of R or D. During this stage of the editing and in later construction of analytical variables, SAS missing values were assigned as appropriate. The values used are:

- .B Logical skip
- .D Don't know
- .E Missing
- .R Refused
- .Z Special missing value assigned during construction of certain variables.

The dataset was enhanced in Step 4 with: (1) geographic site location and Census data merged based on zipcode data (box 5); (2) data from agency worksheets (boxes 6 and 7); and (3) data from hand coding of several open-ended questions (box 8).

**ZIP coding.** Initial review of the preliminary analytical file revealed that there were some zip codes with missing data or erroneous entries and that some state codes displayed typing errors. During this stage, the missing zip codes were researched and filled in or corrected; then state abbreviations and city names were merged onto the preliminary analytical file from PRO-ZIPCODE software.

FIGURE 1  
 EMERGENCY FOOD ASSISTANCE SURVEY  
 ANALYTICAL FILE CONSTRUCTION



**Worksheets.** During the CATI interview, agency staff were occasionally unable to provide immediate answers to questions about the amount of food supplies, the number of agencies or households served, or agency budget and staffing. In these instances a worksheet was provided to agency staff for them to complete. The resulting data were processed and supplemental files created for application to the main analytical file. Boxes 6 and 7 list the files produced for this purpose.

The application of these supplemental worksheet data sometimes required backcoding of selected lead-in questions. For example, if a respondent indicated “no use” of a certain type of food during the interview and provided a food weight for the item on the supplemental worksheet, then the lead-in question was changed to indicate use of the food item.

**Open-ended questions.** Some of the interview questions are open-ended. In these instances, the interviewer recorded all comments by the respondent that did not fit into the available answer categories and the data were collected in an “other specify file.” The data in this file can be used to expand the information provided by agency staff members. After a review of the information provided by the agency staff, several open-ended questions describing agency restriction of services were selected for manual backcoding into supplemental constructed data fields (box 8).

In Step 12, selected variables from two additional files are applied to the preliminary analytical file. Food bank participation in Second Harvest was researched, and an additional file was prepared (box 10) with appropriate indicators for merging onto REVTEF.SD2. Weights were prepared (box 11) based on the entire sample of complete and noncomplete cases and merged onto the preliminary analysis file by case identifier.

### **Application of edits**

Edits were applied to selected data with either outliers or obvious errors after we had determined that the edit was warranted. For example, during Step 2, cases with missing or faulty zip codes were identified and corrected. Also, state codes from PRO-ZIPCODE software were applied based on the corrected case zip code so that the sites could be accurately assigned to regions. Data from the agency worksheets were examined for outliers or typing errors, and in some instances agency staff were contacted and the correct information was obtained and applied to the preliminary analytical file. Selected data fields in the preliminary analytical file were examined for outliers or answers that were not logical. In 13 cases, one or more responses were set to “missing” (.E). These changes involved the following survey questions: C7\_1, E8\_2\_A, C3\_AN3, C22\_1 and C4.

The response to question C13\_1, “Percent of total food distributed in last 12 months,” was examined and set to missing in 191 cases. For these cases, the agency response was less than 50 percent in 45 cases and “don’t know” in about 146 cases.

### **Deletion of selected records**

During development of the analytical file, 55 cases were dropped. These included:

- 1 case that described an agency located in Puerto Rico
- 6 cases that were eligible but for which the interview was incomplete
- 15 cases that were ineligible
- 33 duplicate interviews

### **Constructed variables**

Table D.1 provides a selected list of constructed variables, with a brief definition for each variable; the value range, if the variable is categorical; and extracts of the SAS code used to construct the variable. The list includes those variables that are constructed in response to special situations or from data outside of the CATI survey.

**Table D.1  
Constructed variables**

<b>VARIABLE NAME</b>	<b>DEFINITION</b>	<b>VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE</b>
<b>LOCATION VARIABLES CREATED FROM PRO-ZIPCODE</b>		
NEWZIP	ORIGINAL ZIP CODE FROM SURVEY DATA OR CORRECTED ZIP CODE FROM PRO-ZIPCODE <sup>1</sup>	
ZB3_ST	TWO DIGIT STATE ABBREVIATION MERGED BY ZIPCODE FROM PRO-ZIPCODE	
SB3_CITY	STATE NAME MERGED BY ZIPCODE FROM PRO-ZIPCODE	
REGION	CENSUS REGION CREATED FROM ZB3_ST	<p>REGION = 1 (WEST) WHEN STATE CODE = AK, HI, WA, OR, CA, MT, ID, NV, WY, UT, AZ, CO, NM</p> <p>REGION = 2 (MIDWEST) WHEN STATE CODE = ND, SD, NE, KS, MN, IA, MO, WI, IL, MI, IN, OH</p> <p>REGION = 3 (SOUTH) WHEN STATE CODE = OK, TX, AR, LA, KY, TN, MS, AL, WV, MD, DC, DE, VA, NC, SC, GA, FL</p> <p>REGION = 4 (NORTHEAST) WHEN STATE CODE = ME, VT, NH, MA, CT, RI, NY, NJ, PA</p>
<b>CONSTRUCTED VARIABLES CREATED FROM CENSUS DATA FILE C90STF3B</b>		
URBAN	PERCENT OF POP IN URBAN AREA (CENSUS)	URBAN = ROUND(((INURBAN + OUTURBAN)/PERSONS)100,.01)
RURAL	PERCENT OF POP IN RURAL AREA (CENSUS)	RURAL = ROUND(((FARM + NONFARM)/PERSONS)100,.01)
RACWHITE	PERCENT OF POP THAT IS WHITE (CENSUS)	RACWHITE = ROUND((WHITE/PERSONS)100,.01)

<sup>1</sup> PRO-ZIPCODE is a product of Professional Computer Consulting , Inc.

**Table D.1  
Constructed variables**

<b>VARIABLE NAME</b>	<b>DEFINITION</b>	<b>VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE</b>
RACBLACK	PERCENT OF POP THAT IS BLACK (CENSUS)	$RACBLACK = ROUND((BLACK/PERSONS)100,.01)$
RACOTHER	PERCENT OF POP THAT IS ANOTHER RACE (CENSUS)	$RACOTHER = ROUND(((INDIAN + ASIAN + OTHER) / PERSONS)100,.01)$
SUMPOV	TOTAL NUMBER OF PEOPLE FOR WHOM POVERTY STATUS IS DETERMINED	$SUMPOV = (UNDER50 + BET5074 + BET7499 + B100124 + B125149 + B150174 + B175184 + B185199 + OVER2)$
POVMISS	PERCENT OF POPULATION THAT IS MISSING POVERTY STATUS (CENSUS)	$POVMISS = ROUND(((PERSONS - SUMPOV)/PERSONS)100,.01)$
BELOW	PERCENT OF POPULATION THAT IS BELOW POVERTY LEVEL (CENSUS)	$BELOW = ROUND(((UNDER50 + BET5074 + BET7499) / PERSONS)100,.01)$
ATORABOV	PERCENT OF POPULATION AT OR SLIGHTLY ABOVE POVERTY LEVEL (CENSUS)	$ATORABOV = ROUND(((B100124 + B125149 + B150174) / PERSONS)100,.01)$
ABOVE	PERCENT OF POPULATION ABOVE POVERTY LEVEL (CENSUS)	$ABOVE = ROUND(((B175184 + B185199 + OVER2)/PERSONS)100,.01)$
POV	PERCENT OF POPULATION BELOW POVERTY LEVEL	1 - LESS THAN 20 PERCENT IN POVERTY  2 - BETWEEN 20 AND 30 PERCENT IN POVERTY 3 - GREATER THAN 30 PERCENT IN POVERTY  IF BELOW < 20 THEN POV = 1 IF BELOW >= 20 AND BELOW <= 30 THEN POV = 2 IF BELOW > 30 THEN POV = 3 IF BELOW = .E THEN POV = .E
PERWHT	PERCENT OF POPULATION THAT IS WHITE	1 - GREATER THAN 80 PERCENT 2 - BETWEEN 70 AND 80 PERCENT 3 - LESS THAN 70 PERCENT

**Table D.1  
Constructed variables**

VARIABLE NAME	DEFINITION	VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE
PERBLCK	PERCENT OF POPULATION THAT IS BLACK	IF RACWHITE > 80 THEN PERWHT = 1 IF RACWHITE >= 70 AND RACWHITE <= 80 THEN PERWHT = 2 IF RACWHITE < 70 THEN PERWHT = 3 IF RACWHITE =.E THEN PERWHT = .E  1 - LESS THAN 10 PERCENT 2 - BETWEEN 10 AND 30 PERCENT 3 - GREATER THAN 30 PERCENT
POPCHNG	CHANGE IN STATE POPULATION	IF RACBLACK <10 THEN PERBLCK = 1 IF RACBLACK >= 10 AND RACBLACK <= 30 THEN PERBLCK = 2 IF RACBLACK > 30 THEN PERBLCK = 3 IF RACBLACK =.E THEN PERBLCK = .E  1 - DECREASE OR INCREASE OF LESS THAN 1% 2 - 1 TO 3 PERCENT INCREASE 3 - GREATER THAN 3 PERCENT INCREASE  IF POP9896 < 1 THEN POPCHNG = 1 IF POP9896 >= 1 AND POP9896 <= 3 THEN POPCHNG = 2 IF POP9896 > 3 THEN POPCHNG = 3
STMPCHNG	PERCENT DECREASE IN FOOD STAMP PARTICIPATION IN EACH STATE	1 - DECREASE GREATER THAN 25 PERCENT  2 - DECREASE GREATER BETWEEN 20 TO 25 PERCENT 3 - DECREASE LESS THAN 20 PERCENT  IF STAMPCHG < -25 THEN STMPCHNG = 1 IF STAMPCHG >= -25 AND STAMPCHG <= -20 THEN STMPCHNG = 2 IF STAMPCHG > -20 THEN STMPCHNG = 3



**Table D.1  
Constructed variables**

<b>VARIABLE NAME</b>	<b>DEFINITION</b>	<b>VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE</b>
PERMETRO	PERCENT OF STATE POPULATION THAT IS METROPOLITAN	<p>1 - LESS THAN 75</p> <p>2 - LESS THAN 85 BUT GREATER THAN OR EQUAL TO 75</p> <p>3 - LESS THAN 95 BUT GREATER THAN OR EQUAL TO 85</p> <p>4 - GREATER THAN 95</p> <p>IF POPMETRO &gt;0 AND POPMETRO &lt;75 THEN PERMETRO = 1</p> <p>IF POPMETRO &gt;= 75 AND POPMETRO &lt;85 THEN PERMETRO = 2</p> <p>IF POPMETRO &gt;= 85 AND POPMETRO &lt;95 THEN PERMETRO = 3</p> <p>IF POPMETRO &gt;= 95 THEN PERMETRO = 4</p>
INCCHNG	PERCENT INCREASE IN PERSONAL INCOME	<p>1 - GREATER THAN 10</p> <p>2 - GREATER THAN 9 BUT LESS THAN OR EQUAL TO 10</p> <p>3 - GREATER THAN 8 BUT LESS THAN OR EQUAL TO 9</p> <p>4 - LESS THAN OR EQUAL TO 8</p> <p>IF INC9895 &gt; 10 THEN INCCHNG = 1</p> <p>IF INC9895 &gt; 9 AND INC9895 &lt;= 10 THEN INCCHNG = 2</p> <p>IF INC9895 &gt; 8 AND INC9895 &lt;= 9 THEN INCCHNG = 3</p> <p>IF INC9895 &lt;= 8 THEN INCCHNG = 4</p>
METRO	METROPOLITAN AREA INDICATOR	<p>THIS VARIABLE IS MERGED ONTO EACH AGENCY RECORD BY ZIP CODE FROM THE PRO-ZIPCODE DATABASE</p> <p>IF MSA = 0 THEN METRO = 0</p> <p>ELSE IF MSA &gt; 0 THEN METRO = 1</p> <p>ELSE IF MSA = . THEN METRO = .E</p>
	<b>VARIABLES USED TO MEASURE RECEIPT OF FOOD AND AMOUNT OF FOOD</b>	

**Table D.1  
Constructed variables**

VARIABLE NAME	DEFINITION	VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE
ADJFREQ	HOW OFTEN HOUSEOLDS CAN OBTAIN FOOD PER MONTH	<p>IF C16_2PER &lt; 0 THEN ADJFREQ<sup>2</sup> = 4.3            IF C16_2PER = 1 THEN ADJFREQ = 4.3            IF C16_2PER = 2 THEN ADJFREQ = 1            IF C16_2PER = 3 THEN ADJFREQ = .5            IF C16_2PER = 4 THEN ADJFREQ = .333</p> <p>WHEN THE AGENCY RESPONSE WAS 97 INDICATING AN            OPEN ENDED RESPONSE THE FOLLOW VALUES WERE            APPLIED:</p> <p>ONCE A YEAR = 0.0833            ONCE EVERY EIGHT MONTHS = 0.125            TWICE A YEAR = 0.166            THREE TIMES A YEAR = 0.25            FOUR TIMES A YEAR = 0.5            SEVEN AND A HALF TIMES A YEAR = 0.625            EIGHT TIMES A YEAR = 0.666            8.6 TIMES A YEAR (ONCE EVERY SIX WEEKS) = 0.7166            TWELVE TIMES A YEAR = 1            FIFTEEN TIMES A YEAR = 1.25            SIXTEEN TIMES A YEAR = 1.333            TWENTY SIX TIMES A YEAR = 2.166            52 TIMES A YEAR = 4.3            MISSING = .E</p>
NUMBAGS	# OF PLASTIC BAGS WITH FOOD WHEN PLASTIC IS USED	<p>IF C17 &lt; 0 AND C17_1 = 1 THEN DO</p> <p>NUMBAGS = C17_3BAG            NUMBOXES = 0</p>
	# OF PAPER BAGS WITH FOOD WHEN PAPER IS USED	<p>IF C17 &lt; 0 AND C17_1 = 2 THEN DO</p> <p>NUMBAGS = C17_3BAG            NUMBOXES = 0</p>

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<sup>2</sup> Variables starting with a letter and then a number usually refer to specific survey questions.

**Table D.1**  
**Constructed variables**

<b>VARIABLE NAME</b>	<b>DEFINITION</b>	<b>VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE</b>
NUMBOXES	# OF BOXES WITH FOOD WHEN BOXES ARE USED	IF C17 < 0 AND C17_1 = 3 THEN DO NUMBAGS = 0 NUMBOXES = C17_3BOX
	NUMBAGS AND NUMBOXES CARRY VALUES WHEN BOTH METHODS ARE USED	IF C17 < 0 AND C17_1 >= 4 THEN DO  NUMBAGS = C17_3BAG NUMBOXES = C17_3BOX  IF NUMBAGS > 0 AND C17_2BAG > 0 THEN WTNUMBAG = NUMBAGSC * 17_2BAG IF NUMBOXES > 0 AND C17_2BOX > 0 THEN WTNUMBOX = NUMBOXES * C17_2BOX
WGT	EQUALS EITHER THE WEIGHT OF THE NUMBER OF BAGS OR BOXES OR THE COMBINED WEIGHT WHEN BOTH BAGS AND BOXES ARE USED	WGT = C17 IF C17_1 > 0 THEN WGT = WTNUMBAG OR WTNUMBOX ELSE IF C17 < 0 AND C17_1 = 1 THEN WGT = WTNUMBAG ELSE IF C17 < 0 AND C17_1 = 2 THEN WGT = WTNUMBAG ELSE IF C17 < 0 AND C17_1 = 3 THEN WGT = WTNUMBOX ELSE IF C17 < 0 AND C17_1 = 4 THEN WGT = WTNUMBOX + WTNUMBAG ELSE IF C17 < 0 AND C17_1 = 5 THEN WGT = SUM(WTNUMBAG, WTNUMBOX) ELSE IF C17 < 0 AND C17_1 = 97 THEN WGT = SUM(WTNUMBAG, WTNUMBOX) WHEN WEIGHTS WERE MISSING A VALUE OF 30 WAS IMPUTED
ADJWHTHH	THIS IS WEIGHT A HOUSEHOLD TAKES IN A MONTH	ADJWHTHH IS CALCULATED USING ADJFREQ AND WGT  IF WGT < 0 THEN ADJWGTHH = .B IF WGT > 0 THEN ADJWGTHH = ADJFREQ * WGT
ADJWMO2	SECOND VERSION OF ADJWHTHH CONTROLLING	IF ADJWGTHH < 0 THEN ADJWMO2 = .B

**Table D.1  
Constructed variables**

<b>VARIABLE NAME</b>	<b>DEFINITION</b>	<b>VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE</b>
	FOR OUTLIERS	ELSE IF ADJWGTHH > 215.0 THEN ADJWMO2 = 215.0 ELSE ADJWMO2 = ADJWGTHH
TOTPANWT	TOTAL WEIGHT A PANTRY DISTRIBUTES IN A MONTH	IF ADJWMO2 > 0 AND C17_4 > 0 THEN TOTPANWT = ADJWMO2C17_4
	<b>VARIABLES CONTRIBUTING TO THE CALCULATION OF PANTRY, KITCHEN, AND FOOD BANK SIZE</b>	
NUMENT	NUMBER OF FOOD BANK ENTITIES SERVED	CALCULATED FROM C3_AN1-C3_AN5
PERSVIS	NUMBER OF DAYS PER MONTH DISTRIBUTE FOOD	CALCULATED FROM C9_1MDAY or C9_1WDAY * 4.3
NUMPERS	NUMBER OF HOUSEHOLDS SERVED PER MONTH	USES C17_4 AND THE CONSTRUCTED VARIABLE ADJFREQ
NUMMEAL	AVERAGE NUMBER OF PERSONS SERVED ON A TYPICAL DAY	USES C25_A,C25_B,C25_C,C37_6_A,C37_6_B,C37_6_C
PDSUP	FOOD BANK BINARY INDICATOR - PAID SUPERVISOR HRS	IF E8_1_A=1 & E8_2_A>=0 THEN PDSUP=1
PDNUT	FOOD BANK BINARY INDICATOR - PAID NUTRITION HOURS	IF E8_1_B=1 & E8_2_B>=0 THEN PDNUT=1
PDCLR	FOOD BANK BINARY INDICATOR - PAID CLERICAL HOURS	IF E8_1_C=1 & E8_2_C>=0 THEN PDCLR=1
PDSKL	FOOD BANK BINARY INDICATOR - PAID SKILL KITCHEN HOURS	IF E8_1_D=1 & E8_2_D>=0 THEN PDSKL=1
	FOOD BANK BINARY INDICATOR - PAID NON-SKILL KITCHEN HOURS	IF E8_1_E=1 & E8_2_E>=0 THEN PDNSKL=1

**Table D.1  
Constructed variables**

<b>VARIABLE NAME</b>	<b>DEFINITION</b>	<b>VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE</b>
PDOTH	FOOD BANK BINARY INDICATOR - PAID OTHER HELP HOURS	IF E8_1_F=1 & E8_2_F>=0 THEN PDOTH=1
VLSUP	FOOD BANK BINARY INDICATOR - VOLUNTEER SUPERVISOR HOURS	IF E10_1_A=1 & E10_2_A>=0 THEN VLSUP=1
VLNUT	FOOD BANK BINARY INDICATOR - VOLUNTEER NUTRITION HOURS	IF E10_1_B=1 & E10_2_B>=0 THEN VLNUT=1
VLCLR	FOOD BANK BINARY INDICATOR - VOLUNTEER CLERICAL HOURS	IF E10_1_C=1 & E10_2_C>=0 THEN VLCLR=1
VLSKL	FOOD BANK BINARY INDICATOR - VOLUNTEER SKILL KITCHEN HOURS	IF E10_1_D=1 & E10_2_D>=0 THEN VLSKL=1
VLNSKL	FOOD BANK BINARY INDICATOR - VOLUNTEER NON-SKILL KITCHEN HOURS	IF E10_1_E=1 & E10_2_E>=0 THEN VLNSKL=1
VLOTH	FOOD BANK BINARY INDICATOR - VOLUNTEER OTHER HELP HOURS	IF E10_1_F=1 & E10_2_F>=0 THEN VLOTH=1
NPDSUP	FOOD BANK BINARY INDICATOR - UNPAID SUPERVISOR HOURS	IF E10_4_A=1 & E10_5_A>=0 THEN NPDSUP=1
NPDNUT	FOOD BANK BINARY INDICATOR - UNPAID NUTRITION HOURS	IF E10_4_B=1 & E10_5_B>=0 THEN NPDNUT=1
NPDCLR	FOOD BANK BINARY INDICATOR - UNPAID CLERICAL HOURS	IF E10_4_C=1 & E10_5_C>=0 THEN NPDCLR=1
NPDSKL	FOOD BANK BINARY INDICATOR - UNPAID SKILL KIT HOURS	IF E10_4_D=1 & E10_5_D>=0 THEN NPDSKL=1

**Table D.1  
Constructed variables**

<b>VARIABLE NAME</b>	<b>DEFINITION</b>	<b>VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE</b>
NPDNSKL	FOOD BANK BINARY INDICATOR - UNPAID NON-SKILL KITCHEN HOURS	IF E10_4_E=1 & E10_5_E>=0 THEN NPDNSKL=1
NPDOTH	FOOD BANK BINARY INDICATOR - UNPAID OTHER HELP HOURS	IF E10_4_F=1 & E10_5_F>=0 THEN NPDOTH=1
HASSPR	FOOD BANK HAS PAID, VOLUNTEER, OR UNPAID SUPERVISORS	IF E8_1_A=1 OR E10_1_A=1 OR E10_4_A=1 THEN HASSPR=1
HASNUT	FOOD BANK HAS PAID, VOLUNTEER OR UNPAID NUTRITIONIST	IF E8_1_B=1 OR E10_1_B=1 OR E10_4_B=1 THEN HASNUT=1
HASCLR	FOOD BANK HAS PAID, VOLUNTEER OR UNPAID CLERICAL WORKER	IF E8_1_C=1 OR E10_1_C=1 OR E10_4_C=1 THEN HASCLR=1
HASSKL	FOOD BANK HAS PAID, VOLUNTEER OR UNPAID SKILLED KITCHEN WORKER	IF E8_1_D=1 OR E10_1_D=1 OR E10_4_D=1 THEN HASSKL=1
HASNSKL	FOOD BANK HAS PAID, VOLUNTEER OR UNPAID NON-SKILLED WORKER	IF E8_1_E=1 OR E10_1_E=1 OR E10_4_E=1 THEN HASNSKL=1
HASOTH	FOOD BANK HAS PAID, VOLUNTEER OR UNPAID OTHER HELP	IF E8_1_F=1 OR E10_1_F=1 OR E10_4_F=1 THEN HASOTH=1
PDHRS	TOTAL HRS WORKED BY PAID STAFF (WEEKLY)	PDHRS=SUM(E8_2_A,E8_2_B,E8_2_C,E8_2_D,E8_2_E,E8_2_F)
VLHRS	TOTAL HRS WORKED BY VOLUNTEERS (WEEKLY)	VLHRS=SUM(E10_2_A,E10_2_B,E10_2_C,E10_2_D,E10_2_E,E10_2_F)
NPDHRS	TOTAL HRS WORKED BY UNPAID STAFF (WEEKLY)	NPDHRS=SUM(E10_5_A,E10_5_B,E10_5_C, E10_5_D, E10_5_E, E10_5_F)

**Table D.1  
Constructed variables**

<b>VARIABLE NAME</b>	<b>DEFINITION</b>	<b>VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE</b>
ALLEMP	NUMBER FOOD BANK S HAVING PAID, VOLUNTEER OR UNPAID STAFF	IF E7=1 OR E9=1 OR E10_3=1 THEN ALLEMP=1
SPRHRS	ESTIMATED TOT HRS SUPERVISORY STAFF WORK (WEEKLY)	IF PDSUP=1 OR VLSUP=1 OR NPDSUP=1 THEN SPRHRS=SUM(E8_2_A,E10_2_A,E10_5_A)
NUTHRS	ESTIMATED TOT HOURS NUTRITIONISTS WORK (WEEKLY)	IF PDNUT=1 OR VLNUT=1 OR NPDNUT=1 THEN NUTHRS=SUM(E8_2_B,E10_2_B,E10_5_B)
CLRHRS	ESTIMATED TOT HOURS CLERICAL STAFF WORK (WEEKLY)	IF PDCLR=1 OR VLCLR=1 OR NPDCLR=1 THEN CLRHRS=SUM(E8_2_C,E10_2_C,E10_5_C)
SKLHRS	ESTIMATED TOT HOURS SKILLED KITCHEN STAFF WORK (WEEKLY)	IF PDSKL=1 OR VLSKL=1 OR NPDSKL=1 THEN SKLHRS=SUM(E8_2_D,E10_2_D,E10_5_D)
NSKLHRS	ESTIMATED TOT HOURS NON-SKILLED STAFF WORK (WEEKLY)	IF PDNSKL=1 OR VLNSKL=1 OR NPDNSKL=1 THEN NSKLHRS=SUM(E8_2_E,E10_2_E,E10_5_E)
OTHHRS	ESTIMATED TOT HOURS OTHER HELP WORK (WEEKLY)	IF PDOTH=1 OR VLOTH=1 OR NPDOTH=1 THEN OTHHRS=SUM(E8_2_F,E10_2_F,E10_5_F)
ALLHRS	ESTIMATED TOT HOURS ALL TYPES STAFF WORK (WEEKLY)	ALLHRS=SUM(SPRHRS,NUTHRS,CLRHRS,SKLHRS,NSKLHRS,OTHHRS)
EQVSTAFF	CALCULATION OF EQUIVALENT NUMBER OF STAFF BASED ON ALL HOURS DIVIDED B6 40	IF ALLHRS > 0 THEN EQVSTAFF = ALLHRS/40
HAVESTAF	BINARY INDICATING AGENCY HAS STAFF	IF ALLHRS < .Z THEN HAVESTAF = ALLHRS

**Table D.1  
Constructed variables**

VARIABLE NAME	DEFINITION	VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE
LBSRECD	TOTAL POUNDS OF FOOD RECEIVED	USES B3_2AA-B3_2AN  IF B6 > 0 THEN LBSRECD = B6 ELSE IF B6 IN (.D,.R,.E) AND MISFDWT = 1 THEN LBSRECD = .E ELSE IF B6 < 0 AND MISFDWT = 0 THEN DO I = 1 TO DIM(FOODWT) IF FOODWT{I} > .Z THEN LBSRECD = LBSRECD + FOODWT{I}
TONSRECD	CONVERT TOTAL LBS FOOD RECEIVED TO TONS	IF LBSRECD >= 0 THEN TONSRECD = ROUND ((LBSRECD/2000),.01) ELSE IF LBSRECD < 0 THEN TONSRECD = LBSRECD IF LBSRECD >= 0 AND LBSRECD <= 5 THEN TONSRECD = .E
FBSIZE	FOOD BANK SIZE	IF TONSRECD >= 0 AND TONSRECD < 600 THEN FBSIZE = 1 ELSE IF TONSRECD >= 600 AND TONSRECD < 4000 THEN FBSIZE = 2 ELSE IF TONSRECD >= 4000 THEN FBSIZE = 3 ELSE IF TONSRECD <= .Z THEN DO IF EQVSTAFF >= 0 AND EQVSTAFF < 6 THEN FBSIZE = 1 ELSE IF EQVSTAFF >= 6 AND EQVSTAFF < 25 THEN FBSIZE = 2 ELSE IF EQVSTAFF >= 25 THEN FBSIZE = 3



**Table D.1  
Constructed variables**

VARIABLE NAME	DEFINITION	VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE
KITSIZE	KITCHEN SIZE	IF NUMMEAL >= 0 AND NUMMEAL < 60 THEN KITSIZE = 1 ELSE IF NUMMEAL >= 60 AND NUMMEAL < 120 THEN KITSIZE = 2 ELSE IF NUMMEAL >= 120 THEN KITSIZE = 3 ELSE IF NUMMEAL <= .Z THEN DO IF EQVSTAFF >= 0 AND EQVSTAFF < 1 THEN KITSIZE = 1 ELSE IF EQVSTAFF >= 1 AND EQVSTAFF < 4 THEN KITSIZE = 2 ELSE IF EQVSTAFF >= 4 THEN KITSIZE = 3
PANTSIZE	PANTRY SIZE	IF NUMPERS >= 0 AND NUMPERS < 30 THEN PANTSIZE = 1 ELSE IF NUMPERS >= 30 AND NUMPERS < 150 THEN PANTSIZE = 2 ELSE IF NUMPERS >= 150 THEN PANTSIZE = 3 ELSE IF NUMPERS <= .Z AND EQVSTAFF >= 0 THEN DO IF EQVSTAFF >= 0 AND EQVSTAFF < .4 THEN PANTSIZE = 1 ELSE IF EQVSTAFF >= .4 AND EQVSTAFF < 1.5 THEN PANTSIZE = 2 ELSE IF EQVSTAFF >= 1.5 THEN PANTSIZE = 3 END ELSE IF NUMPERS <= .Z AND EQVSTAFF < 0 AND E1 > .Z THEN DO IF E1 >= 0 AND E1 < 1500 THEN PANTSIZE = 1 ELSE IF E1 >= 1500 AND E1 < 15000 THEN PANTSIZE = 2 ELSE IF E1 >= 15000 THEN PANTSIZE = 3

**COLOCATED AGENCIES REQUIRED RESCALING  
OF THE FOOD TAKEN OR THE FOOD USED.**

**Table D.1  
Constructed variables**

VARIABLE NAME	DEFINITION	VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE
SCALEFACT	THE DEVELOPMENT OF SCALE FACTOR IS A COMPLEX PROCESS (NOT DESCRIBED HERE) WHICH VARIES WITH THE TYPE OF AGENCIES CO-LOCATED	
SCALFCT2	RESIZED VERSION OF SCALEFACT	IF (SAMP_TYP=1 AND CO_LOC=2 AND ONE=1) OR (SAMP_TYP=2 AND CO_LOC=5 AND ONE=1) OR (SAMP_TYP=2 AND CO_LOC=1 AND ONE=1) OR (SAMP_TYP=2 AND CO_LOC=3 AND ONE=1) OR (SAMP_TYP=3 AND CO_LOC=5 AND ONE=1) OR (SAMP_TYP=3 AND CO_LOC=1 AND ONE=1) OR (SAMP_TYP=3 AND CO_LOC=2 AND ONE=1)  AND SCALEFACT = . THEN SCALFCT2 = 1 IF SCALEFACT = 0 THEN SCALFCT2 = 0 IF SCALEFACT > 0 THEN SCALFCT2 = SCALEFACT/100
<b>CALCULATION OF BUDGETS</b>		
PCTBUD1- PCTBUD10	PERCENT OF OPERATING BUDGET CONTRIBUTED BY SOURCE	USES E6_2_A-6_2_J and E6_2PCTA - E6_2PCTJ
OPERBUD	CALCULATED OPERATING BUDGET FOR KITCHENS	IF E1 >= 0 THEN OPERBUD = E1  IF E1 < 0 AND E1_9 = 1 THEN IF E1_10 = .D THEN OPERBUD = .D ELSE IF E1_10 = .R THEN OPERBUD = .R ELSE IF E1_10 = 1 THEN OPERBUD = 12500 ELSE IF E1_10 = 2 THEN OPERBUD = 18000 ELSE IF E1_10 = 3 THEN OPERBUD = 23000 ELSE IF E1_10 = 4 THEN OPERBUD = 38000 ELSE IF E1_10 = 5 THEN OPERBUD = 63000 ELSE IF E1_10 = 6 THEN OPERBUD = 88000

**Table D.1**  
**Constructed variables**

VARIABLE NAME	DEFINITION	VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE
FOODBUD	CALCULATED FOOD BUDGET - CORRECTING FOR NO FOOD PURCHASES – FOR KITCHENS	<pre> ELSE IF E1_10 = 7 THEN OPERBUD = 125500 ELSE IF E1_10 = 8 THEN OPERBUD = 175500 ELSE IF E1_10 = 9 THEN OPERBUD = 225500 ELSE IF E1_10 = 10 THEN OPERBUD = 325500 ELSE IF E1_10 = 11 THEN OPERBUD = 475500 ELSE IF E1_10 = 12 THEN OPERBUD = 650500 ELSE IF E1_10 = 13 THEN OPERBUD = 875000  IF E1 &lt; 0 AND E1_9 = 2 THEN IF E1_11 = .D THEN OPERBUD = .D  ELSE IF E1_11 = .R THEN OPERBUD = .R  ELSE IF E1_11 = 1 THEN OPERBUD = 8750 ELSE IF E1_11 = 2 THEN OPERBUD = 6200 ELSE IF E1_11 = 3 THEN OPERBUD = 3700 ELSE IF E1_11 = 4 THEN OPERBUD = 1250  IF E3_1 &lt; 0 THEN  IF E3_4 = .D THEN FOODBUD = .D ELSE IF E3_4 = .R THEN FOODBUD = .R ELSE IF E3_4 = 1 THEN FOODBUD = 2500 ELSE IF E3_4 = 2 THEN FOODBUD = 6300 ELSE IF E3_4 = 3 THEN FOODBUD = 8800 ELSE IF E3_4 = 4 THEN FOODBUD = 13000 ELSE IF E3_4 = 5 THEN FOODBUD = 18000 ELSE IF E3_4 = 6 THEN FOODBUD = 23000 ELSE IF E3_4 = 7 THEN FOODBUD = 38000 ELSE IF E3_4 = 8 THEN FOODBUD = 75500 ELSE IF E3_4 = 9 THEN FOODBUD = 150000 </pre>
FLAG	CREATE FLAG FOR BUDGETS TAKEN AT THE INTERVAL	<pre> IF OPERBUD &gt; 0 AND E1 &lt; 0 THEN FLAG = 1 IF FOODBUD &gt; 0 AND E3_1 &lt; 0 THEN FLAG = 1 </pre>

**Table D.1  
Constructed variables**

VARIABLE NAME	DEFINITION	VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE
NOPERBUD	NEW OPERATING BUDGET FOR KITHCENS	IF E2_2 = 1 THEN IF FLAG = 0 AND OPERBUD >= FOODBUD THEN NOPERBUD = OPERBUD IF FLAG = 0 AND FOODBUD > OPERBUD THEN NOPERBUD = FOODBUD IF FLAG = 1 AND FOODBUD > OPERBUD THEN NOPERBUD = MAX(OPERBUD, FOODBUD) ELSE NOPERBUD = OPERBUD IF E2_2 NE 1 THEN NOPERBUD = OPERBUD
TOTBUD	CREATE TOTAL BUDGET BASED ON NOPERBUD FOODBUD AND E2_2. THIS IS THE TOTAL BUDGET FOR BOTH OPERATING AND FOOD FOR KITCHENS	IF NOPERBUD = .D THEN TOTBUD = .D  IF NOPERBUD = .R THEN TOTBUD = .R IF FOODBUD = .D THEN TOTBUD = NOPERBUD IF FOODBUD = .R THEN TOTBUD = NOPERBUD  IF NOPERBUD = 0 THEN E2_2 = 0  IF E2_2 = .D THEN TOTBUD = .D ELSE IF E2_2 = 0 AND FOODBUD >= 0 AND NOPERBUD >= 0 THEN TOTBUD = SUM(NOPERBUD, FOODBUD) ELSE TOTBUD = NOPERBUD
BRKFAST	<b>BINARIES INDICATING KITCHEN SERVES            BREAKFAST, LUNCH, SUPPER, OR SNACK</b>  KITCHEN SERVES BREAKFAST	IF C24_2A_1 = 1 OR C24_2B_1 = 1 OR C24_2C_1 = 1 OR C24_2D_1 = 1 OR C24_2E_1 = 1 OR C24_2F_1 = 1 OR C24_2G_1 = 1 THEN BRKFAST = 1

**Table D.1**  
**Constructed variables**

<b>VARIABLE NAME</b>	<b>DEFINITION</b>	<b>VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE</b>
LUNCH	KITCHEN SERVES LUNCH	IF C24_2A_2 = 2 OR C24_2B_2 = 2 OR C24_2C_2 = 2 OR C24_2D_2 = 2 OR C24_2E_2 = 2 OR C24_2F_2 = 2 OR C24_2G_2 = 2 THEN LUNCH = 1
SUPPER	KITCHEN SERVES SUPPER	IF C24_2A_3 = 3 OR C24_2B_3 = 3 OR C24_2C_3 = 3 OR C24_2D_3 = 3 OR C24_2E_3 = 3 OR C24_2F_3 = 3 OR C24_2G_3 = 3 THEN SUPPER = 1
SNACK	KITCHEN SERVES SNACK	IF C24_2A_4 = 4 OR C24_2B_4 = 4 OR C24_2C_4 = 4 OR C24_2D_4 = 4 OR C24_2E_4 = 4 OR C24_2F_4 = 4 OR C24_2G_4 = 4 THEN SNACK = 1
FBNP	BINARY INDICATING FOOD BANK OR OTHER SIMILAR NONPROFIT ORGANIZATIONS	IF B1_2N_B = 1 OR B1_2N_C = 1 THEN FBNP = 1
NEWPER NEWNUM	BECAUSE OF THE HIGH PERCENTAGE OF OTHER SPECIFY RESPONSES TO Q. C16_2, "HOW OFTEN CAN HOUSEHOLDS OBTAIN FOOD", TWO NEW VARIABLES WERE CREATED FOR PANTRIES: NEWPER AND NEWNUM	NEWPER = C16_2PER NEWNUM = C16_2NUM EXCEPT WHEN OTHER SPECIFY ANSWERS ARE APPLIED

**Table D.1  
Constructed variables**

VARIABLE NAME	DEFINITION	VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE
	NEWNUM - #OF TIMES A HH CAN OBTAIN FOOD NUMPER - THE FREQUENCY OF NEWNUM.	NEWPER VALUES ARE: 1 - PER WEEK 2 - PER MONTH 3 - EVERY TWO MONTHS 4 - EVERY THREE MONTHS 5 - EVERY 4 MONTHS 6 - EVERY SIX MONTHS 7 - EVERY EIGHT MONTHS 8 - PER YEAR
DAYS_YR	CHANGE NEWNUM AND NEWPER TO DAYS PER YEAR HOUSEHOLD CAN OBTAIN FOOD	IF NEWPER = 1 AND NEWNUM >0 THEN DAYS_YR = NEWNUM * 52 ELSE IF NEWPER = 2 AND NEWNUM >0 THEN DAYS_YR = NEWNUM * 12 ELSE IF NEWPER = 3 AND NEWNUM >0 THEN DAYS_YR = NEWNUM * 6 ELSE IF NEWPER = 4 AND NEWNUM >0 THEN DAYS_YR = NEWNUM * 4  ELSE IF NEWPER = 5 AND NEWNUM > 0 THEN DAYS_YR = NEWNUM * 3 ELSE IF NEWPER = 6 AND NEWNUM > 0 THEN DAYS_YR = NEWNUM * 2 ELSE IF NEWPER = 7 AND NEWNUM > 0 THEN DAYS_YR = NEWNUM * 1.5 ELSE IF NEWPER = 8 AND NEWNUM > 0 THEN DAYS_YR = NEWNUM * * USED 500 TO INDICATE OTHER ELSE IF NEWPER = 97 AND NEWNUM > 0 THEN DAYS_YR = 500
C18_2OTH	COMBINE TWO OTHER RESPONSE ANSWERS	IF C18_2_97= 97 OR C18_2_66=1 THEN C18_2OTH=1
C18_4OTH	COMBINE TWO OTHER RESPONSE ANSWERS	IF C18_4_97= 97 OR C18_4_76=1 THEN C18_4OTH=1

**Table D.1  
Constructed variables**

VARIABLE NAME	DEFINITION	VALUE RANGE; NOTES; OR LIMITED DESCRIPTIVE CODE
LACK	COMBINE LACK FOOD AND LACK RESOURCES RESPONSES	IF C18_4_1 = 1 OR C18_4_71 = 1 THEN LACK = 1
NEWCHNG	CALCULATE THE SIZE OF INCREASE OR DECREASE IN NUMBER SERVED. THE KITCHEN MIDPOINT IS F13 AND THE PANTRY MIDPOINT IS F8	THIS IS SPECIFIC CODE FOR FOODBANK, EMERGENCY FOOD OPERATION AND RESCUE SHELTERS BUT THE APPLIED VALUES ARE THE SAME FOR PANTRY AND KITCHEN  IF F2 = 1 THEN DO IF F3 = 1 THEN NEWCHNG = 5 IF F3 = 2 THEN NEWCHNG = 17.5 IF F3 = 3 THEN NEWCHNG = 38 IF F3 = 4 THEN NEWCHNG = 63 IF F3 = 5 THEN NEWCHNG = 88 IF F3 = 6 THEN NEWCHNG = 150 IF F3 = 7 THEN NEWCHNG = 220 IF F3 = .D THEN NEWCHNG = .D IF F3 = .R THEN NEWCHNG = .R END
SIZEINC	SIZE OF INCREASE KITCHENS CAN HANDLE	IF F17 = 0 THEN SIZEINC = 0 ELSE IF F17 = 1 AND F19 = 0 THEN SIZEINC = 1 ELSE IF F19 = 1 AND F20 = 0 THEN SIZEINC = 2 ELSE IF F20 = 1 AND F21 = 0 THEN SIZEINC = 3 ELSE IF F21 = 1 THEN SIZEINC = 4 IF F17 = 1 AND F19 = .D THEN SIZEINC = .D ELSE IF F19 = 1 AND F20 = .D THEN SIZEINC = .D ELSE IF F20 = 1 AND F21 = .D THEN SIZEINC = .D ELSE IF F21 = .D THEN SIZEINC = .D