Section 4. File Characteristics and Formats

4.1. Files provided in the database

The Pyramid Servings Database for USDA Survey Food Codes is available online from CNRG's Web site. The download creates a <9498serv> directory with the subdirectories and files listed in the tree diagram below.

The Pyramid Servings Database for USDA Survey Food Codes contains two types of data files:

- Pyramid servings data file, (fixed format ASCII text file)

  fsrv9498.txt – Pyramid Servings Database for USDA Survey Food Codes; provides the number of servings per 100 grams of food from 30 Pyramid food groups.

- Food code description files (delimited ASCII text files)

  cbdes.txt – Descriptions of each CSFII 1994-96, 1998 food code.

  cdincl.txt – Names of specific foods associated with generic descriptions in the cbdes.txt file.

  moddes.txt – Descriptions of each CSFII 1994-96, 1998 modification code.

In addition to these data files, the database contains:

- Format files for the data and food code description files (ASCII text files). See Section 4.2 for the format of the Pyramid Servings data file and Section 4.3 for the format used for the food code description files.

- Program files (written for SAS®) to facilitate use of the servings database; (see Section 6).

- Documentation for the Pyramid Servings Database for USDA Survey Food Codes in Portable Document Format (PDF) files.

For more information on the directory file structure, see the README.txt file that is provided with the downloaded files. To view files with the "*.pdf" extension, Adobe® Acroread® software is required. (If Adobe® Acroread® needs to be installed on your computer, see "Get Adobe® Acrobat Reader®" in the reference section.)

Tree diagram of directories and files from CNRG's online Pyramid Servings Database

```
C:\9498serv\
        |
        |---data\
        |       |---  fsrv9498.txt          Servings data file
        |       |---  cbdes.txt             Descriptions of the codes in the servings
        |       |                           databases
        |       |---  cbincl.txt            Brand names of foods associated with
        |       |                           generic food descriptions
        |       |---  moddesc.txt           Description of food modifications
        |       |
        |       |---formats\
        |             |---  f_fsrv.txt       Servings data file format
        |             |---  f_cbdes.txt      Food code description file format
        |             |---  f_cbincl.txt     Brand names description file format
        |             |---  f_moddes.txt     Modification description file format
        |---doc\
        |       |---  section1.pdf          Section 1. Table of Contents
        |       |---  section2.pdf          Section 2. Essential Information
        |       |---  section3.pdf          Section 3. Methodology
        |       |---  section4.pdf          Section 4. File Characteristics and Formats
        |       |---  section5.pdf          Section 5. Issues to Consider When Using
        |       |                                    the Pyramid Servings Data
        |       |---  section6.pdf          Section 6. Pyramid Serving Intakes
        |       |                                    Programs
        |---sasprgms\
        |       |---  readfsrv.sas          Reads and stores fsrv9498.txt as SAS® data
        |       |---  rt32.sas              Creates food level Pyramid Servings
        |       |                           intake records
        |       |---  rt42.sas              Creates daily and 2-day average Pyramid
        |       |                           Servings intake records
        |       |---  servadj.sas           Adjusts serving sizes for young children
        |       |---  pyrrecom.sas          Compares intakes to Pyramid
        |       |                           recommendations
        |       |---  drybp.sas             Assigns dry beans and peas to Pyramid
        |       |                           Groups
        |
        |—README.txt                        "Read me" text  file
```

4.2. **Pyramid Servings data file** (fsrv9498.txt)

File characteristics

The format of fsrv9498.txt (3 megabytes) is ASCII fixed format.

Each record contains 33 fields and has a length of 255 characters.

There is a single record for each CSFII food code-food modification combination; if a food was not modified, the modification code is "0".

Each record contains the number of servings from all 30 Pyramid food groups.

The file includes data for the 5,624 foods and 3,770 food modifications reported in CSFII 1994-96, 1998. The remaining 1,457 food codes (excluding baby foods and infant formulas) that were not reported in the CSFII intakes, but that were in the CSFII 1994-96 food code database are also included.

There are 93 food codes in the database that have no Pyramid servings from any of the 30 Pyramid groups. The records for these codes have been flagged for easy identification; see the SERVFLAG variable listed below. Foods with zero (0) servings include:

- those that did not fit into any of the Pyramid food groups and that contribute relatively few, if any, calories, such as coffee and tea without sugar or creamer; broth, bouillon, consomme; flavoring sauces such as mustard, soy, Worcestershire sauce; spices, herbs, and other seasonings; fluid nutrient replacements; plain gelatins; yeast; water; and nonalcoholic malt beverages.
- infant formulas reported for individuals 2 years of age and over; these were not assigned Pyramid Servings since these highly formulated products do not reflect the traditional definition for dairy or soy milk.

Servings data for codes that were in previous releases of the servings database are unchanged with the exceptions noted below:

- Dry beans and peas (legumes) have been re-labeled and can be tabulated differently.

  LEGUMES is used for servings of dry beans and peas; this variable name replaces V_LEGUME used in previous releases.

  V_TOT is used for total vegetable servings excluding dry beans and peas; V_TOTAL was used in previous releases for total vegetable servings including dry beans and peas.

  The Food Guide Pyramid (USDA 1992, USDA and USDHHS 2000) indicates that dry beans and peas can contribute as a meat alternate to the serving recommendations for the meat group or as a vegetable serving.

CAUTION is required in using the data for reporting servings intakes to ensure that servings of dry beans and peas (LEGUMES) contribute to just one of these two major Pyramid groups, and not both. See the data file format below and the programs provided for using the servings data (Section 6.2) for additional information on counting servings from dry beans and peas.

- the amount of added sugar from 11 beverage codes was adjusted to zero servings. Previous estimates showing small amounts of added sugar were made based on the carbohydrate in the dry form of aspartame. It was recognized that the sweetener in these beverages was liquid aspartame which has no carbohydrate contribution.

- the amounts of Pyramid servings for another 10 foods were adjusted from those previously released since additional information on their ingredients had become available. The net effect of these changes in servings amounts on Pyramid intakes was + 0.1 servings (or grams) for the affected groups (nonwhole grain, total meat, or discretionary fat)

File format for fsrv9498.txt

Listed below are the variables (name and description), location (position), width (W), and data type (T) for each record in the serving data file. All data are numeric (N), and may include three decimal places (N3).

Name	Position	W	T	Description
FOODCODE	1- 8	8	N	Food code. Applies to all records. 11000000 - 99999999 = Food code Complete descriptions for each food code are found in the file "C:\9498serv\data\cbdes.txt" from the download of the *online* release of servings data .
SERVFLAG	9	1	N	Flag to indicate food or modification codes with or without servings data. Applies to all records. 0 = Food code where the number of servings for all Pyramid groups is zero (0).

				1 = Food or modification code where the number of servings for at least one Pyramid group is greater than zero (0). 2 = Food or modification code for infant formula for which servings data has not been assigned and, thus, appear as zero (0) servings.
MODCODE	10-15	6	N	Modification code. Indicates that one or several characteristics of the food item was modified to capture some specific information provided by the respondent. Applies to all records. 0 = No modification 100000 - 999999 = Modification code Complete descriptions for each modification code are found in the file "C:\9498serv\data\moddes.txt" from the download of the servings data .
G_TOTAL	16-23	8	N3	Total number of servings from the bread, cereal, rice, and pasta food group. Applies to all records. 0.000 - 999.999 = Servings
G_WHL	24-31	8	N3	Number of servings of whole grains from the bread, cereal, rice, and pasta food group. Applies to all records. 0.000 - 999.999 = Servings

G_NWHL	32-39	8	N3	Number of servings of nonwhole grains (enriched, unenriched, and fortified) from the bread, cereal, rice, and pasta food group. Applies to all records. 0.000 - 999.999 = Servings
V_TOT	40-47	8	N3	Total number of servings from the vegetable food group. Includes servings from: V_DRKGR, V_DPYEL, V_POTATO, V_STARCY, V_TOMATO, and V_OTHER. NOTES: V_TOT does not include servings from dry beans and peas (LEGUMES). Dry beans and peas can count toward servings from either the meat and bean group or vegetable group, according to USDA's Food Guide Pyramid (USDA 1992; USDA and USDHHS 2000). For this release, the variable for dry beans and peas is called LEGUMES (previously it was called V_LEGUME). V_TOTAL used in previous Pyramid Servings releases (USDA, ARS 1997, 1998) included V_LEGUMES as part of the total number of vegetable servings. Applies to all records. 0.000 - 999.999 = Servings
V_DRKGR	48-55	8	N3	Number of servings of dark-green vegetables. Applies to all records. 0.000 - 999.999 = Servings

V_DPYEL	56-63	8	N3	Number of servings of deep-yellow vegetables. Applies to all records. 0.000 - 999.999 = Servings
V_POTATO	64-71	8	N3	Number of servings of white potatoes. Applies to all records. 0.000 - 999.999 = Servings
V_STARCY	72-79	8	N3	Number of servings of other starchy vegetables, excluding dry beans and peas (LEGUMES) and white potatoes (V_POTATO). Applies to all records. 0.000 - 999.999 = Servings
V_TOMATO	80-87	8	N3	Number of servings of tomatoes. Applies to all records. 0.000 - 999.999 = Servings
V_OTHER	88-95	8	N3	Number of servings of other vegetables, not dark-green (V_DRKGR), deep-yellow (V_DPYEL), dry beans or peas (LEGUMES), white potatoes (V_POTATO), other starchy vegetables (V_STARCHY), or tomatoes (V_TOMATO) . Applies to all records. 0.000 - 999.999 = Servings

F_TOTAL	96-103	8	N3	Total number of servings from the fruit food group. Applies to all records. 0.000 - 999.999 = Servings
F_CITMLB	104-111	8	N3	Number of servings of citrus fruits, melons, berries and their juices. Applies to all records. 0.000 - 999.999 = Servings
F_OTHER	112-119	8	N3	Number of servings of fruits and juices, which are not citrus fruits, melons, berries or their juices. Applies to all records. 0.000 - 999.999 = Servings
D_TOTAL	120-127	8	N3	Total number of servings from the milk, yogurt, and cheese food group. Applies to all records. 0.000 - 999.999 = Servings
D_MILK	128-135	8	N3	Number of servings of milk. Applies to all records. 0.000 - 999.999 = Servings
D_YOGURT	136-143	8	N3	Number of servings of yogurt. Applies to all records. 0.000 - 999.999 = Servings

D_CHEESE	144-151	8	N3	Number of servings of cheeses. Includes natural and processed cheeses. Applies to all records. 0.000 - 999.999 = Servings
M_MPF	152-159	8	N3	Ounces of cooked lean meat equivalents from beef, pork, veal, lamb, and game (M_MEAT); organ meats (M_ORGAN); frankfurters, sausages, and luncheon meat (M_FRANK); poultry (M_POULT); and fish and shellfish (M_FISH). Applies to all records. 0.000 - 999.999 = Ounce equivalents
M_MEAT	160-167	8	N3	Ounces of cooked lean meat equivalents from beef, pork, veal, lamb, and game, excluding that from organ meats (M_ORGAN) and that in frankfurters, sausages, and luncheon meat (M_FRANK). Applies to all records. 0.000 - 999.999 = Ounce equivalents
M_ORGAN	168-175	8	N3	Ounces of cooked lean meat equivalents from all types of organ meats, including those from beef, pork, veal, lamb, game, poultry, and fish. Applies to all records. 0.000 - 999.999 = Ounce equivalents

M_FRANK	176-183	8	N3	Ounces of cooked lean meat equivalents from frankfurters, sausages, and luncheon meats. Applies to all records. 0.000 - 999.999 = Ounce equivalents
M_POULT	184-191	8	N3	Ounces of cooked lean meat equivalents from chicken, turkey, and other poultry. Excludes organ meats and poultry in frankfurters, sausage, and luncheon meats. Applies to all records. 0.000 - 999.999 = Ounce equivalents
M_FISH	192-199	8	N3	Ounces of cooked lean meat equivalents from fish, shellfish, and other seafood. Excludes organ meats and seafood in frankfurters, sausages, and luncheon meats. Applies to all records. 0.000 - 999.999 = Ounce equivalents
M_EGG	200-207	8	N3	Number of eggs, where one egg is equivalent to one ounce of cooked lean meat. Includes eggs and egg substitutes. Applies to all records. 0.000 - 999.999 = Ounce equivalents
M_SOY	208-215	8	N3	Number of servings soybean products where one cup soy milk, 1/2 cup cubed tofu, 1/4 cup soy nuts, and one ounce meat analog is equivalent to one ounce of cooked lean meat. Applies to all records. 0.000 - 999.999 = Ounce equivalents

M_NUTSD	216-223	8	N3	Ounces of cooked lean meat equivalents from nuts and seeds, where 1/3 cup of nuts and 1/4 cup of seeds is equivalent to one ounce of cooked lean meat. Applies to all records. 0.000 - 999.999 = Ounce equivalents
LEGUMES	224-231	8	N3	Ounces of cooked lean meat equivalents or servings of vegetables from dry beans and peas where 1/2 cup of dry beans and peas is to equivalent to one ounce of cooked lean meat or one vegetable serving. [According to the Food Guide Pyramid (USDA, CNPP 1992, USDA and USDHHS 2000) 1/2 cup dry beans and peas can count as one ounce lean meat equivalents or as one vegetable servings; see Section 5.2] Applies to all records. 0.000 - 999.999 = Servings
DISCFAT	232-239	8	N3	Grams of discretionary fat from the foods in each of the five major Pyramid food groups and fat in the Pyramid tip. [Discretionary fat is defined as fat in excess of the amount that would be consumed if food choices were no higher in fat per serving than food group composites used to develop the Food Guide Pyramid (USDA 1992).] Applies to all records. 0.000 - 999.999 = Grams

ADD_SUG	240-247	8	N3	Teaspoons of added sugars, where one teaspoon is the quantity of a sweetener that contains the same amount of carbohydrate as one teaspoon of table sugar. [Added sugars are defined as white sugar, brown sugar, raw sugar, corn syrup, corn syrup solids, high fructose corn syrup, malt syrup, maple syrup, pancake syrup, fructose sweetener, liquid fructose, honey, molasses, anhydrous dextrose, crystal dextrose, saccharin, and aspartame (powder) that are eaten separately or as ingredients from processed or prepared foods. No adjustments are made to recipes where the amount of sugar added could be reduced by yeast fermentation, such as in bread dough.] Applies to all records. 0.000 - 999.999 = Teaspoons
A_BEV	248-255	8	N3	Total drinks of alcohol, where one drink is defined according to Food Guide Pyramid definitions (12 fluid ounces of beer; five fluid ounces of wine; 1-1/2 fluid ounces of 80-proof distilled spirits). Applies to all records. 0.000 - 999.999 = Number of drinks

4.3. Control counts

Table 5 below provides the counts on the number of records and control statistics (number (n), mean, minimum, maximum, and sum) for the Pyramid Servings 100 gram data file.

The numbers in the table are unweighted and are intended to be used as a point of reference for users of the servings data file (fsrv9498.txt).

Table 5: Control counts for the Pyramid Servings data file

File name: fsrv9498.txt
Format: ASCII fixed
Record length 255 characters
Total byte count: 2,788,707 bytes
Total records: 10,851 records

Variable	N	Mean	Minimum	Maximum	Sum
FOODCODE	10851	51073611.18	11000000.00	94000000.00	554199754873.00
SERVFLAG	10851	0.99	0.00	2.00	10794.00
MODCODE	10851	60073.14	0.00	205031.00	651853629.00
G_TOTAL	10851	0.60	0.00	7.87	6462.16
G_WHL	10851	0.11	0.00	6.79	1244.28
G_NWHL	10851	0.48	0.00	7.87	5217.72
V_TOT	10851	0.33	0.00	26.67	3625.81
V_DRKGR	10851	0.04	0.00	6.25	433.80
V_DPYEL	10851	0.03	0.00	3.53	276.01
V_POTATO	10851	0.05	0.00	5.98	583.76
V_STARCY	10851	0.04	0.00	3.53	462.26
V_TOMATO	10851	0.03	0.00	7.41	281.49
V_OTHER	10851	0.15	0.00	26.67	1588.51
F_TOTAL	10851	0.06	0.00	5.56	689.30
F_CITMLB	10851	0.02	0.00	2.08	189.15
F_OTHER	10851	0.05	0.00	5.56	500.15
D_TOTAL	10851	0.09	0.00	4.46	933.59
D_MILK	10851	0.04	0.00	4.46	389.46
D_YOGURT	10851	0.00	0.00	0.44	8.27
D_CHEESE	10851	0.05	0.00	3.53	517.09
M_MPF	10851	0.52	0.00	3.53	5614.10
M_MEAT	10851	0.17	0.00	3.53	1809.98
M_ORGAN	10851	0.02	0.00	3.53	164.37
M_FRANK	10851	0.04	0.00	3.53	468.94
M_POULT	10851	0.15	0.00	3.53	1643.19
M_FISH	10851	0.14	0.00	3.53	1527.63
M_EGG	10851	0.06	0.00	2.66	612.30
M_SOY	10851	0.01	0.00	4.30	72.04
M_NUTSD	10851	0.03	0.00	4.10	289.99
LEGUMES	10851	0.02	0.00	1.65	242.51
DISCFAT	10851	6.08	0.00	100.00	65935.03
ADD_SUG	10851	1.16	0.00	25.00	12541.83
A_BEV	10851	0.01	0.00	8.33	97.77

4.4. Food code description files

The following description files (from USDA/ARS 2000a, directories \Tsf9498\fcdb and the \Tsf9498\recdb on Disk 2) are included in this release to facilitate the use of the 1994-1996, 1998 Pyramid Servings Data:

cbdes.txt	Descriptions of each CSFII 1994-96, 1998 food code
cbincl.txt	Names of specific foods associated with generic descriptions in the cbdes.txt file.
moddes.txt	Description of each CSFII 1994-96, 1998 modification codes

Each of these data files is in ASCII delimited format. Fields are separated by the caret (^) symbol and alphanumeric fields are enclosed by tilde (~) marks. Format descriptions listed here include the name of each field; its type (N=numeric, A=alphanumeric, and D=date); and its length, including decimals.

File format for cbdes.txt: Food Descriptions

Survey Food Code	N	8
Start Date (MM/DD/YYYY)	D	
End Date	D	
Food Description	A	200
Abbreviated Description	A	60

Comments:

Food Descriptions are usually generic in nature except for certain breakfast cereals, infant formulas, and candies.

Complete and abbreviated descriptions are included. Descriptions for some brand name cereals include a name enclosed in parentheses, which denotes the previous name.

Survey Food Code--an 8-digit number assigned to each unique food in the Food Coding Database. The Survey Food Code links this file to four other files within the Food Coding Database: Food Includes, Subcodes, Subcode Includes and Gram Weights. It also links the Food Coding Database to the Nutrient Database and the Recipe Database (USDA/ARS 2000a).

Start and End Dates indicate the time period when each description was available for use during CSFII 1994-96, 1998 food coding.

File format for cbincl.txt: Food Includes

Survey Code	N	8
Sequence Number	N	2
Start Date (MM/DD/YYYY)	D	
End Date	D	
Include Description	A	80

Comments:

Food Includes are names of specific foods associated with a particular generic food description in the Food Descriptions file. "Includes" have nutrient values comparable to the generically described food. Frequently, "includes" are specific brand names. Each "include" is contained in a separate record.

More than one "include" may be associated with a single food code.

Sequence Number--Each "include" for the same food code is identified by a unique sequence number.

Example from Food Includes file:

Survey Code:	53206030 (Cookie, chocolate chip, reduced fat)
Sequence Number:	1
Include Description:	Nabisco Reduced Fat Chips Ahoy!

Start and End Dates indicate the time period when each Include Description was available for use during CSFII 1994-96, 1998 food coding.

File format for moddes.txt: Modification Descriptions

Modification number	N	6
Start Date (MM/DD/YYYY)	D	
End Date	D	
Food Name	A	240
Moisture Change During Cooking*	N	5.1
Fat Change During Cooking*	N	5.1
Type of Fat Absorbed or Lost During Cooking*	N	8
Survey Code	N	8

Comments:

Recipe Modifications occur when a responding sample person supplies specific information about certain food ingredients that differs from the recipe as maintained in the Recipe Database (USDA/ARS 2000a, \Tsf9498\recdb directory on Disk 2).

Modification number--identifies a specific recipe modification. Throughout CSFII 1994-96, 1998, modification numbers are linked to a specific survey food code.

Food Name--includes description of how the modified food differs from original recipe.

Moisture Change During Cooking--is the percentage gain or loss in moisture during cooking.

Fat Change During Cooking--is the percentage gain or loss in fat during cooking.

Type of Fat Absorbed or Lost During Cooking--indicates the type of fat either gained or lost during cooking. The type of fat may be either a PDS or Survey code.

Moddes.txt is a copy of modhead.txt from the \Tsf9498\recdb directory on Disk 2 of the CSFII 1994-96, 1998 data release (USDA/ARS 2000a). Variables for cooking changes (marked with an asterisk "*") are irrelevant for use of the Pyramid Servings Database for USDA Food Codes.

4.5 References

Cited References

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USDA/ARS (U.S. Department of Agriculture, Agricultural Research Service)**.** 2000b. Pyramid Servings Intakes by Children and Adults: 1994-96, 1998. *Online*. ARS Community Nutrition Research Group, available on the Web site at http://www.barc.usda.gov/bhnrc/cnrg/ on October 2000.

USDA/ARS (U.S. Department of Agriculture, Agricultural Research Service). 1998. 1994-96 Continuing Survey of Food Intakes by Individuals. CD-ROM.

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