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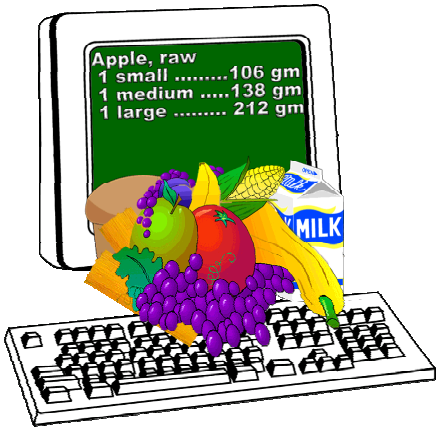
THE USDA FOOD AND NUTRIENT DATABASE FOR DIETARY STUDIES, 1.0 – DOCUMENTATION AND USER GUIDE



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THE USDA FOOD AND NUTRIENT DATABASE FOR DIETARY STUDIES, 1.0 – DOCUMENTATION AND USER GUIDE

INTRODUCTION

In dietary studies, the researcher collects information on what people eat. Collection methods may vary, from 24-hour recalls collected in What We Eat in America, the dietary intake interview component of the National Health and Nutrition Examination Survey (NHANES) 2001-2002, to food diaries recorded by an individual. After data collection, the researcher needs a way to translate the food intake data into a form that can be used for analysis. The USDA Food and Nutrient Database for Dietary Studies (FNDDS) is a resource that is used to code and analyze What We Eat in America data. It can also be used with data collected in your own study.

What is the FNDDS?

- Database of foods, their nutrient values, and weights for typical food portions; used to process and analyze food intake data
- Current version (FNDDS-1.0) was used to process What We Eat in America/NHANES 2001-2002
- Foods include many mixtures, ethnic foods, and brand name items

How Can You Use It?

- In research projects using What We Eat in America/NHANES food intake data
- In other food intake studies:
  - To code foods and amounts eaten
  - To calculate the amounts of nutrients/food components in those foods

What Are Some FNDDS Applications?

In addition to its use in What We Eat in America/NHANES, the FNDDS is used in:
- Interactive Healthy Eating Index
- Pyramid Servings Database
- Food Commodity Intake Database
- National Cancer Institute Diet History Questionnaire

How Can I Learn More About the FNDDS and What We Eat in America/NHANES?

- Download the database free from the website of USDA's Food Surveys Research Group (FSRG), who developed and maintain the FNDDS.
- Receive e-mail announcements about FNDDS, What We Eat in America, and other FSRG products and activities by joining the FSRG listserv at www.barc.usda.gov/bhnrc/foodsurvey/listserv.html

What is the Database Format?

- Available in two formats - as a Microsoft Access® database and as ASCII delimited text files
- Consists of 10 separate but linked data files (referred to as "tables" in the Microsoft Access® database). As shown in figure 1, many of the files are linked to one another by the **Food Code** field; others are linked by the **Subcode**, **Portion Code**, and **Nutrient Code** fields (highlighted in color in the figures and tables in this document). Together, the files form a normalized, relational database system where data redundancy is minimized.
- As shown in figure 1, the 10 FNDDS files fall into three components:
  Food Descriptions Component:
  1. Main Food Descriptions
  2. Additional Food Descriptions

  Food Portions and Weights Component:
  3. Food Portion Descriptions
  4. Food Weights
  5. Subcode Descriptions
  6. Food Code-Subcode Links

  Nutrients Component:
  7. FNDDS Nutrient Values
  8. Nutrient Descriptions
  9. Moisture & Fat Adjustments
  10. FNDDS-SR Links

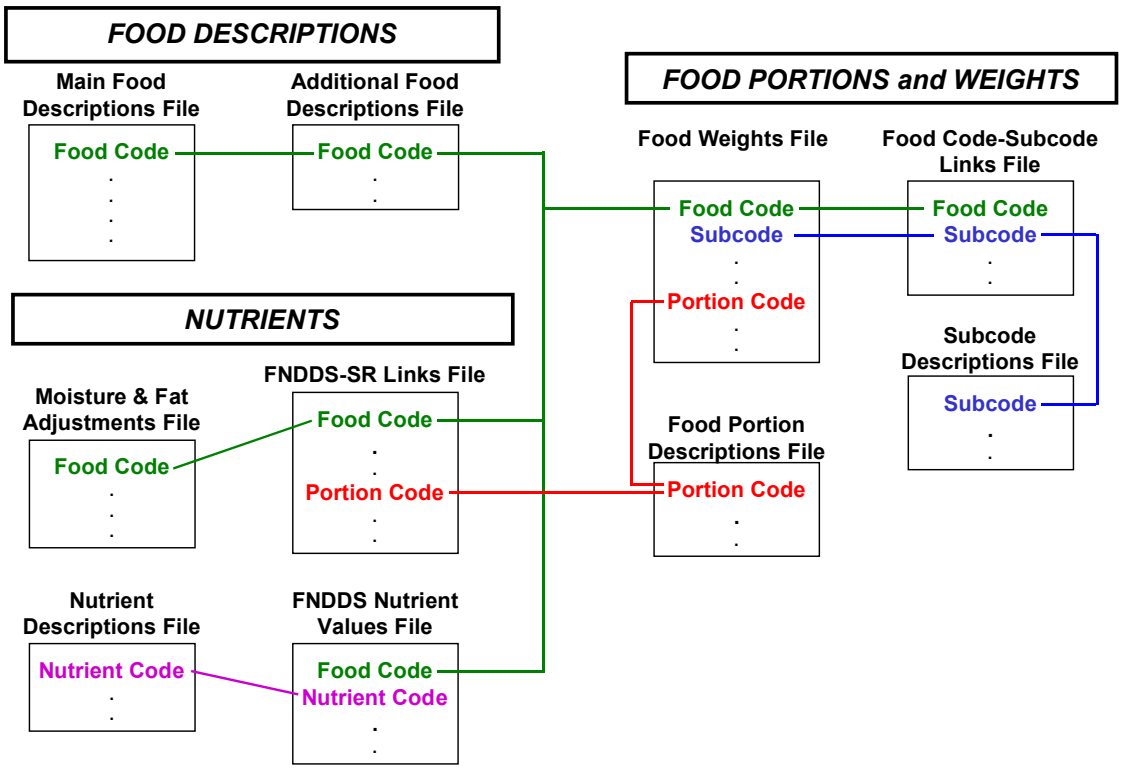


Figure 1. USDA Food and Nutrient Database for Dietary Studies (FNDDS) – files and interrelationships

How Does the FNDDS Differ From the Technical Support Files Used With the Continuing Survey of Food Intakes by Individuals 1994-96, 1998?

- Terminology (names of database, files, and fields)
- Release format
- Structure of database and files
- Revised data values
- See table 13 for details

GENERAL INFORMATION ABOUT FNDDS FILE FORMATS

The following table lists the full names of the FNDDS files, along with the abbreviated file/table name.

Table 1. Full and Abbreviated File/Table Names

Full File Name	Abbreviated File Name
Main Food Descriptions	MainFoodDesc
Additional Food Descriptions	AddFoodDesc
Food Weights	FoodWeights
Food Portion Descriptions	FoodPortionDesc
Subcode Descriptions	SubcodeDesc
Food Code-Subcode Links	FoodSubcodeLinks
FNDDS Nutrient Values	FNDDSNutVal
Nutrient Descriptions	NutDesc
Moisture & Fat Adjustments	MoistNFatAdjust
FNDDS-SR Links	FNDDSSRLinks

Previous view

ASCII Format Files

The ASCII data files have an extension of .txt and use delimited, uncompressed formats. In the ASCII delimited files, all fields are separated (delimited) by carets (^), and text fields are also surrounded by tildes (~).

The following record appears in the ASCII format version of the Main Food Descriptions file:

32202070^1/01/2001^12/31/2002^~Egg, cheese, and bacon on biscuit~^~EGG, CHEESE & BACON ON BISCUIT~

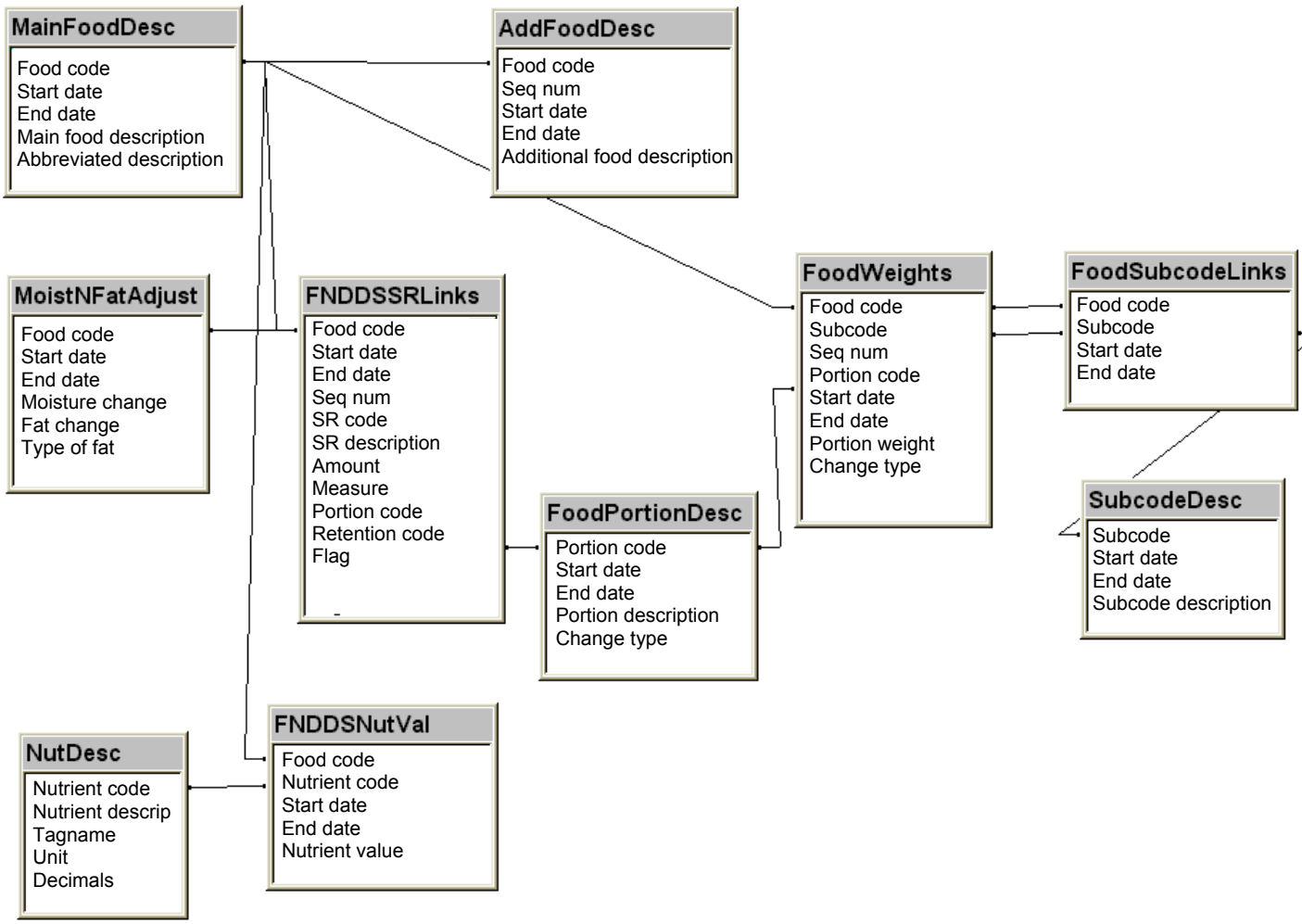
MS Access® Format Database

The FNDDS in MS Access® format consists of a single database file called FNDDS.mdb. Within the file are the 10 individual tables whose names are listed on page 9. When you open a table, the field label and field data type will already be defined, as shown in the screenshot below:

Food Code	Start date	End date	Main food description	Abbreviated description
11000000	1/1/01	12/31/02	Milk, human	MILK, HUMAN
11100000	1/1/01	12/31/02	Milk, NFS	MILK, NFS
11111000	1/1/01	12/31/02	Milk, cow's, fluid, whole	MILK, COW'S, FLUID, WHOLE
11111100	1/1/01	12/31/02	Milk, cow's, fluid, whole, low-sodium	MILK, COW'S, FLUID, WHOLE, LOW SODIUM

In order to create Access queries, forms, and reports to display information from several tables at once, relationships between the tables must be created. Such relationships have been established between the FNDDS tables in the Access database by linking matching fields. Linked fields in the FNDDS include the food code, subcode, portion code, and nutrient code. The diagram that follows shows the relationships and linked fields across all files.

Previous view



Referential integrity should be maintained when working with the FNDDS. Referential integrity is concerned with keeping the relationships between tables synchronized. Enforcing referential integrity means preserving the relationship between tables when records are added, changed or deleted. Referential integroty was used in creating this version of the FNDDS database, but it has not been explicitly enforced. To enforce referential integrity, please read the Access manual to understand the conditions and rules that must be followed when referential integrity is established.

FILE FORMATS

When this documentation is viewed online or printed in color, the linking fields that are used to connect information from one file to that in another appear in color. Additional formatting has been added to distinguish these fields when color is not available or useful. In the schematic diagrams (figures), lines are used to show linking fields. In the tables and the examples of data records, the symbol ‡ follows the name of each linking field.

Key to Tables

This key (Table 2) defines abbreviations and symbols used in tables 3 to 12, which outline the format of each file in the FNDDS.

Table 2. Key to abbreviations and symbols used in tables 2 to 11

Abbreviation or symbol in tables 2 to 11	**Meaning**	**Additional information**
N #.#	numeric field	Number (shown here as #) following field type indicates field length; number after decimal point indicates number of decimal places.
A #	alphanumeric field	
D (MM/DD/YYYY)	date field	For FNDDS-1.0, all start and end dates are the same (01/01/2001 and 12/31/2002, respectively). Dates may differ in the multi-year version of the FNDDS.
*	indexed field (holds values by which the file is ordered)	Although ASCII delimited files do not have indexes, they are identified in this document to show the order of records.
‡	linking field	Used to indicate links within FNDDS. Linking field names are also highlighted in color in the figures and tables.

Food Descriptions Component

The Food Descriptions component consists of 2 files:

- Main Food Descriptions
- Additional Food Descriptions

Counting both main and additional food descriptions, the number of food descriptions included in FNDDS exceeds 13,000.

As shown in figure 2, the food code links the Main and Additional Food Descriptions files to one another and to other files in the database.

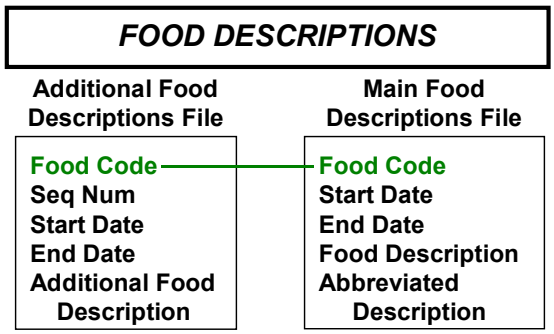


Figure 2. Main food descriptions file, additional food descriptions file, and their link

Main food descriptions

There are about 7,000 main food descriptions. The main food description is the primary (usually generic) complete description identified by a unique 8-digit food code. The food code links the description to information in the other database files. The main food description often includes form (fresh, frozen or canned) and preparation method. See "Notes About Foods in the Database."

Table 3. Format of main food descriptions file†

Field Name	Type	Description
Food code‡	N 8*	a unique 8-digit number assigned to a given main food description
Start date	D (MM/DD/YYYY)	start and end dates indicate the time period corresponding to the What We Eat in America/NHANES data for which the record was used
End date	D (MM/DD/YYYY)	
Main food description	A 200	a complete description for the food, often including preparation method (e.g., boiled) and original form of the food (e.g., from frozen); usually generic in nature
Abbreviated description	A 60	a shortened description of the food

†See table 2 for an explanation of the abbreviations and symbols used in this table.

Additional food descriptions

An additional food description is associated with a specific main food description and shares the same nutrient profile and same portion weights. More than one additional food description may be associated with a single food code. There are about 6,500 additional food descriptions, each contained in a separate record. Additional food descriptions aid in the selection of food codes to represent foods reported by study participants. About half of the additional food descriptions are brand names. Some additional food descriptions represent similar forms of the main food; some represent less specific forms. The term "Additional Food Description" replaces the term "Includes" that was used in earlier databases.

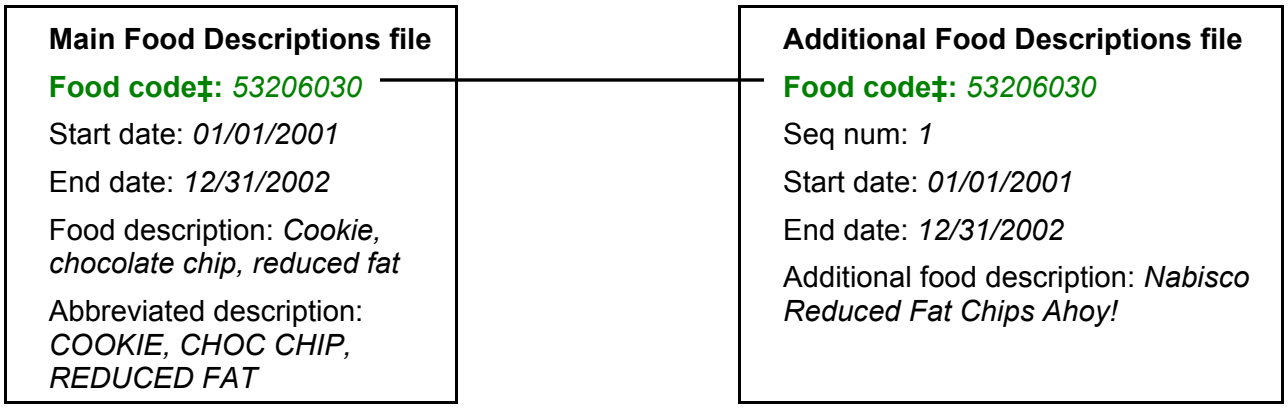
Table 4. Format of additional food descriptions file†

Field Name	Type	Description
Food code‡	N 8*	a unique 8-digit number assigned to each Main Food Description
Seq num	N 2*	a sequence number (unique within a food code) used by USDA for ordering additional food descriptions in reports; missing sequence numbers represent discontinued items
Start date	D (MM/DD/YYYY)*	start and end dates indicate the time period corresponding to the What We Eat in America/NHANES data for which the record was used
End date	D (MM/DD/YYYY)	
Additional food description	A 80	an additional food description included under the same food code as the main food description; often a specific brand name

†See table 2 for an explanation of the abbreviations and symbols used in this table.

Previous view

Examples of data records from the Food Descriptions Component files



The food code links the main food description "Cookie, chocolate chip, reduced fat" with the additional food description "Nabisco Reduced Fat Chips Ahoy!"

Food Portions And Weights Component

For each food in the FNDDS, there is a set of portion descriptions and weights for those portions. The Food Portions and Weights Component consists of four files:

- Food Weights
- Food Portion Descriptions
- Food Code-Subcode Links
- Subcode Descriptions

Figure 3 shows the following links:

- **Food code** links the Food Weights and Food Code-Subcode Links files, as well as other files in the database.
- **Portion code** links the Food Portion Descriptions and Food Weights files, as well as the FNDDS-SR Links file (a Nutrients Component file).
- **Subcode** links the Subcode Descriptions, Food Weights, and Food Code-Subcode Links files.

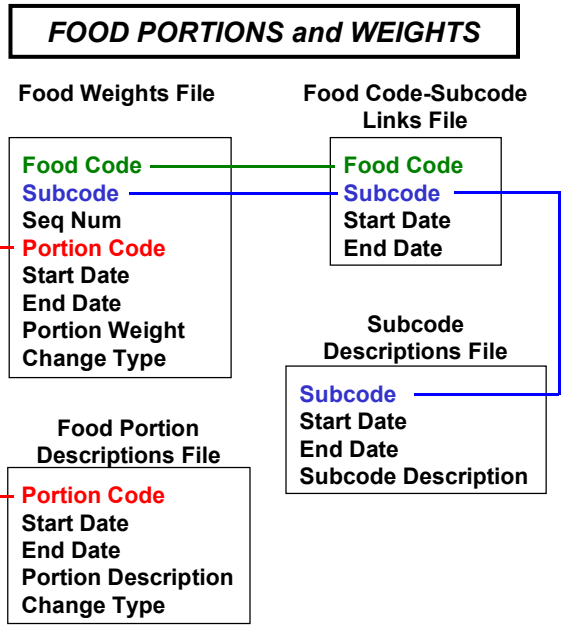


Figure 3. Food weights file, food portion descriptions file, food code-subcode links file, subcode descriptions file, and their links

Food weights

The Food Weights file includes the weights (in grams) for different portions of a particular food item.

This file contains about 30,000 food weights. Many weights are specific to brand name items. (The brand name information is in the Food Portion Descriptions file.)

Table 5. Format of food weights file†

Field Name	Type	Description
Food code‡	N 8*	a unique 8-digit number assigned to each main food description
Subcode‡	N 7*	value may be zero; if present, a unique 7-digit code associated with a particular subcode description
Seq num	N 2*	within a given food code , a unique number assigned to each portion used
Portion code‡	N 5*	code that identifies a unique description for a portion of food
Start date	D (MM/DD/YYYY)*	start and end dates indicate the time period corresponding to the What We Eat in America/NHANES data for which the record was used
End date	D (MM/DD/YYYY)	
Portion weight	N 8.3	weight of food item for the portion indicated by portion code; all weights are in grams; weight of edible portion only is included; missing values for the portion code 90000 (quantity not specified) are indicated with –9 in this field
Change type	A 1	field is blank unless a change has occurred in the weight record, indicated by a D (data change) or F (food change)

†See table 2 for an explanation of the abbreviations and symbols used in this table.

Food portion descriptions

This file contains common food portion descriptions that are used in coding portion sizes, such as:

Type of portion	Examples of portion descriptions
individual portion	slice, piece
container or package	can, snack size
brand name (when related to portion size)	1 McDonald's breakfast burrito, 1 Dannon Sprinkl'ins container
relative size	small, medium, large
household measure	teaspoon, tablespoon, cup

Each portion description is identified by a unique 5-digit portion code. The same portion code and portion description can be used for many different foods. See "Defaults Used for Coding Foods and Amounts in What We Eat in America/NHANES 2001-2002."

Table 6. Format of food portion descriptions file†

Field Name	Type	Description
Portion code‡	N 5*	a unique 5-digit number assigned to each portion description; can be used for many foods
Start date	D (MM/DD/YYYY)*	start and end dates indicate the time period corresponding to the What We Eat in America/NHANES data for which the record was used
End date	D (MM/DD/YYYY)	
Portion description	A 120	a unique description for each portion code; describes an amount of food in terms that facilitate coding of portions
Change type	A 1	field is blank unless a change has occurred in the portion description, indicated by a D (data change) or F (food change)

†See table 2 for an explanation of the abbreviations and symbols used in this table.

Subcode descriptions

A subcode description is associated with a specific food code and main food description and shares the same nutrient profile. Subcodes are used in the Food Portions and Weights component of the FNDDS for approximately 50 snack cake and candy food codes that have several different weights for a single portion description.

For example, the food code 53108200, "Cake, cupcake, chocolate, with icing or filling," includes 14 weights for the portion description code 63382, which represents "1 cupcake." Below are two examples:

- 40 grams (Hostess brand, subcode 1000240)
- 32 grams (Tastycake brand, subcode 1000231)

Subcodes were developed for these foods to facilitate food coding. Subcodes are not used with other foods because the number of brand name weights associated with individual food codes is smaller, and each has been given a unique portion description.

Table 7. Format of subcode descriptions file†

Field Name	Type	Description
Subcode‡	N 7*	a unique 7-digit code associated with a particular subcode description contained in this file
Start date	D (MM/DD/YYYY)*	start and end dates indicate the time period corresponding to the What We Eat in America/NHANES data for which the record was used
End date	D (MM/DD/YYYY	
Subcode description	A 60	a description for a specific food that has the same nutrient profile as a main food description but has its own unique weight data

†See table 2 for an explanation of the abbreviations and symbols used in this table.

Food code-subcode links

Food code-subcode links document the associations between food codes and subcodes. A food code may be linked to multiple subcodes, and a subcode may be linked to multiple food codes. This file provides a quick way to list all subcodes for a particular food code, or all food codes for a particular subcode.

Table 8. Format of food code-subcode links file†

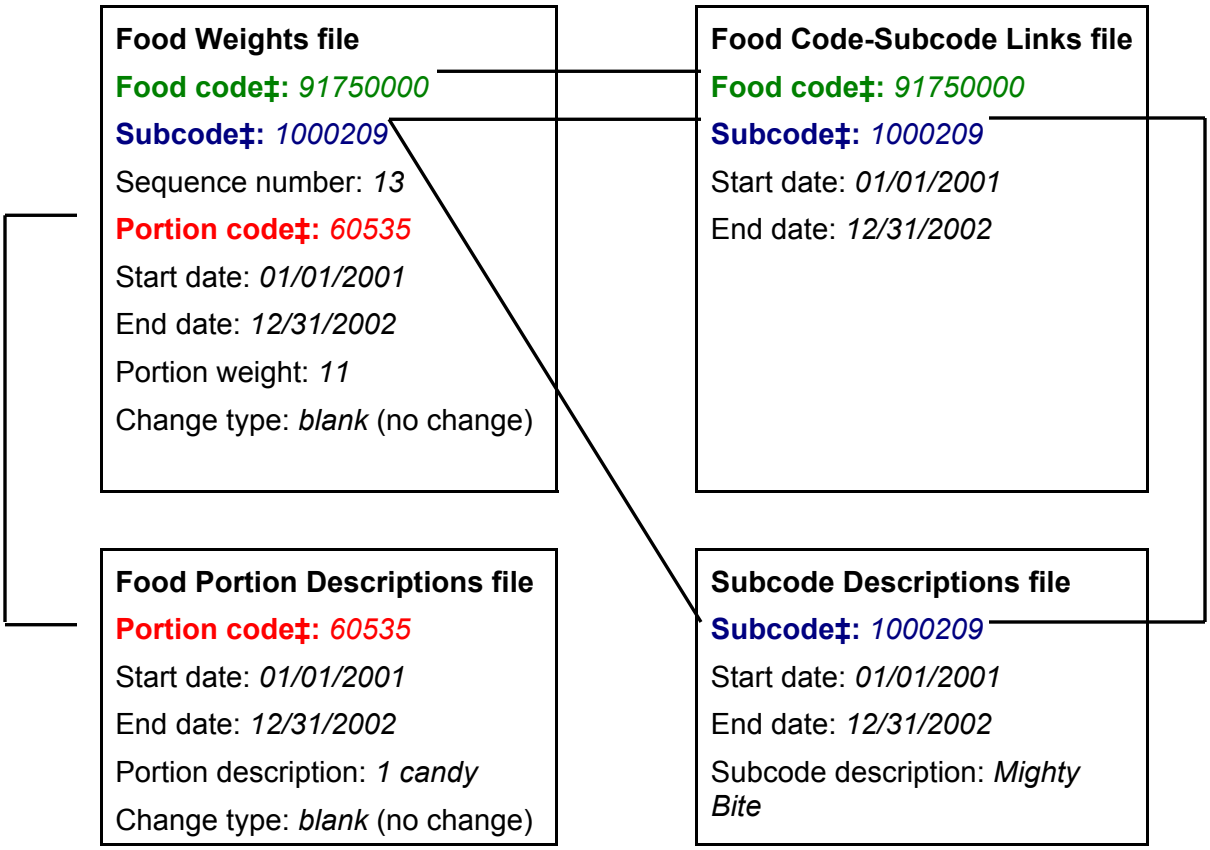
Field Name	Type	Description
Food code‡	N 8*	a unique 8-digit number assigned to each main food description
Subcode‡	N 7*	a unique 7-digit code associated with a particular subcode description
Start date	D (MM/DD/YYYY)	start and end dates indicate the time period corresponding to the What We Eat in America/NHANES data for which the record was used
End date	D (MM/DD/YYYY)	

†See table 2 for an explanation of the abbreviations and symbols used in this table.

Previous view

Examples of data records from the Food Portions and Weights Component files

The Main Food Description associated with the food code used in this example is "Taffy."



Three linking fields are at work here:

1) **Food code** links the main food description "Taffy" from the Food Descriptions Component to the Food Weights and Food Code-Subcode Links files.
2) **Subcode** links the Food Weights and the Food Code-Subcode Links to the Subcode Descriptions.
3) **Portion code** links the Food Portion Descriptions to the Food Weights.

As a result, we can see that for a type of taffy called "Mighty Bite," the weight of the portion "1 candy" is 11 grams.

Nutrients Component

There are four files in the Nutrients Component:

- FNDDS Nutrient Values
- Nutrient Descriptions
- Moisture & Fat Adjustments
- FNDDS-SR Links

- Figure 4 shows the following links:
- **Food code** links the FNDDS Nutrient Values to the FNDDS-SR Links and the Moisture & Fat Adjustments, as well as to other files in the database.
- **Portion code** links the FNDDS-SR Links to two of the Food Portions and Weights files (Food Weights and Food Portion Descriptions).
- **Nutrient code** links the Nutrient Descriptions to the FNDDS Nutrient Values.

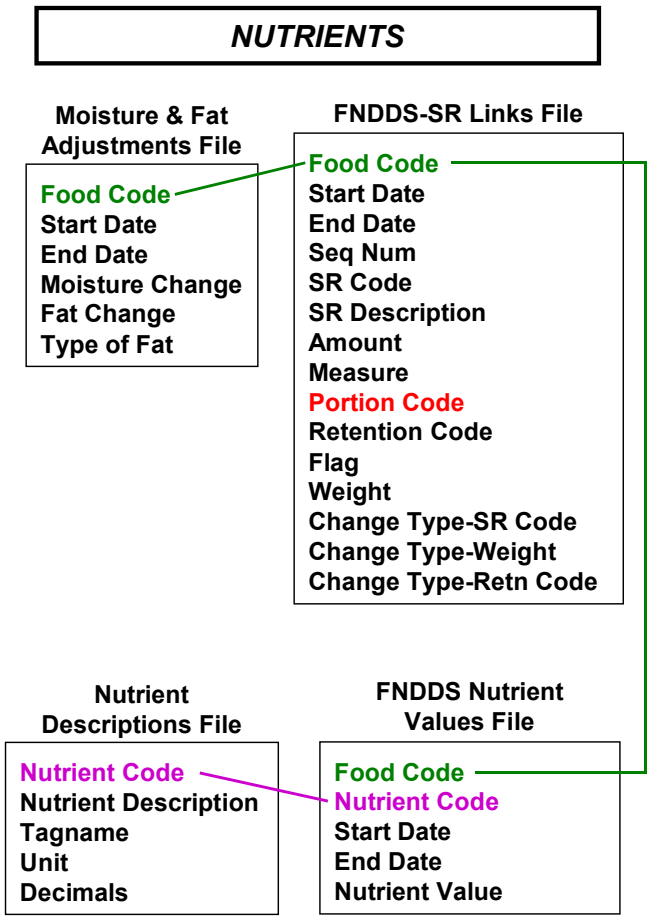


Figure 4. FNDDS nutrient values file, nutrient descriptions file, FNDDS-SR links file, moisture & fat adjustments file, and their links

FNDDS nutrient values

This file provides a complete nutrient profile (energy and 60 nutrients) for each food code.

Where salt is considered an optional component in a food, it was included in calculating the nutrient content of the food. An alternate file of sodium values with optional salt excluded from the sodium calculations is available on request.

Table 9. Format of FNDDS nutrient values file†

Field Name	Type	Description
Food code‡	N 8*	a unique 8-digit number assigned to each main food description
Nutrient code‡	N 5*	identifies a nutrient
Start date	D (MM/DD/YYYY)*	start and end dates indicate the time period corresponding to the What We Eat in America/NHANES data for which the record was used
End date	D (MM/DD/YYYY)	
Nutrient value	N 10	amount of nutrient in 100 grams edible portion of the food

†See table 2 for an explanation of the abbreviations and symbols used in this table.

Previous view

Nutrient descriptions

This file contains the names (nutrient descriptions) and codes for nutrients included in the FNDDS Nutrient Values file. The nutrient codes, nutrient descriptions, units of expression, and number of decimal places to which values are expressed are consistent with similar fields in the USDA National Nutrient Database for Standard Reference (SR), Release 16-1, our source of nutrient values. SR was developed and is maintained by USDA's Nutrient Data Laboratory (NDL), and Release 16-1 may be found online at http://www.nal.usda.gov/fnic/foodcomp/Data/SR16-1/sr16-1.html.

Table 10. Format of nutrient descriptions file†

Field Name	Type	Description
Nutrient code‡	N 5*	identifies a nutrient
Nutrient description	A 45	the description for the nutrient code
Tagname	A 15	the nutrient or food component name or “tag” assigned by INFOODS, the International Network of Food Data Systems, for international interchange of nutrient data (Food and Agriculture Organization)
Unit	A 10	the measurement unit in which values for the nutrient are expressed
Decimals	N	the number of decimal places to which the nutrient value is expressed; varies from nutrient to nutrient

†See table 2 for an explanation of the abbreviations and symbols used in this table.

Moisture & fat adjustments

The Moisture & Fat Adjustments are factors used to adjust amounts of moisture and fat during calculation of the nutrient values for some food mixtures. These adjustments are made to account for changes that occur to food during cooking. This file is similar to the Recipe Headers file that was included in previous databases.

Table 11. Format of moisture & fat adjustments file†

Field Name	Type	Description
Food code‡	N 8*	a unique 8-digit number assigned to each main food description
Start date	D (MM/DD/YYYY)*	start and end dates indicate the time period corresponding to the What We Eat in America/NHANES data for which the record was used
End date	D (MM/DD/YYYY)	
Moisture change	N 5.1	increase or decrease in moisture; expressed as a percentage (plus or minus) of the total weight of the food; applied during nutrient value calculations
Fat change	N 5.1	increase or decrease in fat; expressed as a percentage (plus or minus) of the total weight of the food; applied during nutrient value calculations
Type of fat	N 8	indicates the type of fat (SR code or food code) used for calculating fat change

†See table 2 for an explanation of the abbreviations and symbols used in this table.

FNDDS-SR links

This file provides information used to calculate FNDDS nutrient values. It was formerly known as the Recipe Ingredients file. It documents the association between FNDDS foods and about 2,600 items in SR 16-1.[1] Some foods are represented by a one-to-one link between an FNDDS code and the corresponding SR code, e.g., whole milk. FNDDS codes for food mixtures are usually linked to multiple SR codes. When multiple links exist, nutrient values were calculated according to the retention factor recipe calculation method (Powers and Hoover, 1989). For many commercial mixtures, links were estimated from label information. For other food mixtures, popular cookbooks were consulted to aid in constructing links. Sometimes one FNDDS food is linked to another FNDDS item, instead of multiple SR codes, as a way of simplifying database maintenance. This type of linkage can be distinguished by the number of digits in the SR Code field – there are 8 digits for an FNDDS food code number and 5 digits for an SR code.

Recipes represented in this file were used to estimate the nutrient content of foods reported in national surveys, not to determine the intake of specific food ingredients. During food coding for What We Eat in America/NHANES, recipes may have been modified to match more closely the food as described by the respondent. Modified recipes are not included in this database.

The food descriptions of some food codes contain the phrase "Not Further Specified" (NFS). In What We Eat in America/NHANES 2001-2002, these NFS codes were used when a respondent was unable to provide further detail about a food. For example, the "Milk, NFS" code was used when respondents could not provide the fat content of the milk they drank. The FNDDS food code for "Milk, NFS" is linked to multiple SR codes (whole milk, 2-percent milk, 1-percent milk, and skim milk), in proportions that reflect U.S. milk production statistics. The "Milk, NFS" links are revised for each release of the FNDDS to reflect the most current production data. Links for other NFS codes are based on food supply data or food consumption data, such as the form of food most frequently reported in previous surveys. For example, the link for "Bread, NFS" is to the SR code for white bread. See "Defaults Used for Coding Foods and Amounts in What We Eat in America/NHANES 2001-2002."

[1] With few exceptions, the SR 16-1 codes used in the FNDDS-SR Links file are available from the NDL website (online at http://www.nal.usda.gov/fnic/foodcomp/Data/SR16-1/sr16-1.html). For the exceptions that are not available from NDL, nutrient values can be obtained from the Food Surveys Research Group.

About retention codes and factors

Calculation of the nutrient value of a food must take into account any nutrient losses that occur as a result of cooking. A table of retention factors for calculating the amounts of nutrients that are retained after cooking was developed and is maintained by NDL. Because nutrient losses vary by food and by cooking method, categories were created that are specific to a food type and cooking method (for example, "Chicken, broiled"). Each category is identified by a 4-digit retention code. For each retention code, there is a list of nutrient-specific retention factors. Each retention factor is the percent of the specific nutrient that remains in the food after it is prepared by the specified method. The retention codes are included in FNDDS-SR Links file to identify the set of retention factors that were applied during calculation of the FNDDS nutrient values for that food. Users who wish to apply the retention factors in their own calculations may obtain the Table of Retention Factors from http://www.nal.usda.gov/fnic/foodcomp/Data/retention.

Table 12. Format of FNDDS-SR links file†

Field Name	Type	Description
Food code‡	N 8*	a unique 8-digit number assigned to each main food description
Start date	D (MM/DD/YYYY)*	start and end dates indicate the time period corresponding to the What We Eat in America/NHANES data for which the record was used
End date	D (MM/DD/YYYY)*	
Seq num	N 2*	indicates placement of this SR code within the list of SR codes linked to this food code; unique within a specified food code and time period
SR code	N 8	may be a 5-digit SR code (called "NDB_No" in SR 16-1) or an 8-digit food code
SR description	A 60	abbreviated description of SR code or food code
Amount	N 11.3	number of measures or portions of SR code
Measure	A 3	type of common volume or weight measure (such as cup, tablespoon, quart, fluid ounce, pound, gram) used to quantify amount of SR code; measure field may be blank
Portion code‡	N 5	identifies a food portion; used in combination with SR code to calculate weight (gm) of SR item; value is 0 (not used) if measure = lb, oz, gm or mg
Retention code	N 4	link to USDA Table of Nutrient Retention Factors, Release 5; retention code links to a description of the food category and preparation method; retention factors are expressed as a percentage of the nutrient retained
Flag	N 2	signals a special condition: ● 2 = item not available; substitution used; SR description may not match SR code under this condition ● other values = internal processing codes for FSRG use only
Weight	N 11.3	weight of SR item (excluding refuse weight)

--table continued on facing page –

--table 12, continued--

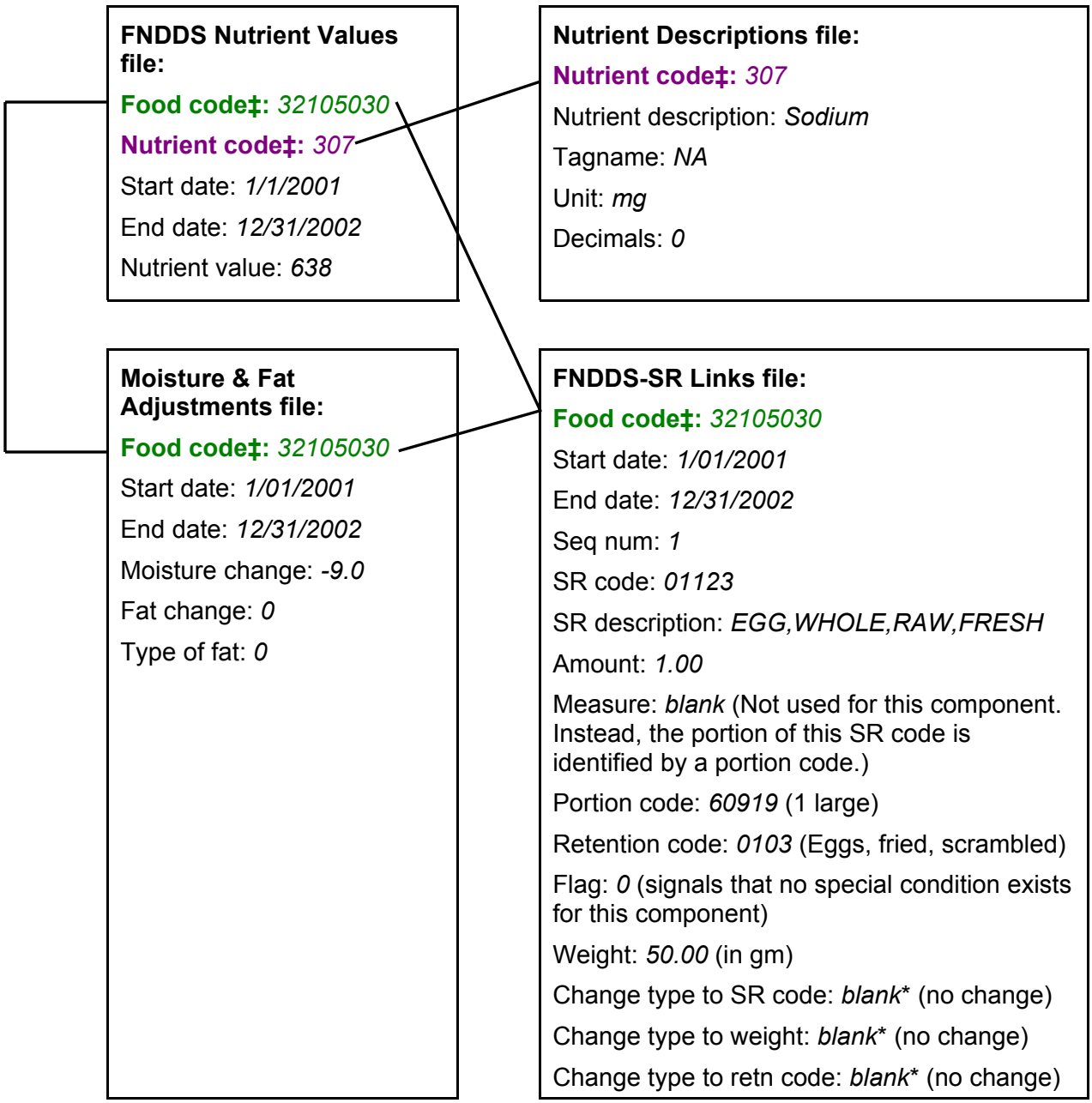
Field Name	Type	Description
Change type to SR code	A 1	fields are blank unless a change has occurred in the associated data field (SR code, weight or retention code); changes are indicated by a D (data change) or F (food change)
Change type to weight	A 1	
Change type to retn code	A 1	

†See table 2 for an explanation of the abbreviations and symbols used in this table.

Previous view

Examples of data records from the Nutrients Component files

The Main Food Description associated with the food code in this example is "Egg omelet or scrambled egg, with ham or bacon." There are 5 records in the FNDDS-SR Links file that are used in calculating the nutrient values for this food. For the sake of simplicity, the illustration below shows only one of those records, the record for the egg used in the omelet. Similarly, for the FNDDS Nutrient Values and Nutrient Descriptions files, only the records associated with sodium are shown.



The nutrient code links the Nutrient Descriptions file with the FNDDS Nutrient Values file and enables us to see that there are 638 milligrams of sodium per 100 grams of this food.

The food code links the Moisture & Fat Adjustments file with the FNDDS-SR Links file (as well as with the FNDDS Nutrient Values file and other files in the database). The moisture change field indicates that a 9 percent moisture loss must be applied to the total food weight.

In order to account for the nutrient losses that occurred as a result of cooking this omelet, the factors for retention code 0103 (Eggs, fried, scrambled) are applied to specific nutrient values for the egg (SR code 01123 = Egg, whole, raw, fresh).

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FOOD CODE NUMBERS, THE FOOD CODING SCHEME, AND FSRG-DEFINED FOOD GROUPS

The Main Food Descriptions file associates the primary (usually generic) description of a given food with a unique 8-digit food code. The food code is assigned according to a scheme that associates the first three or four digits of the code number with FSRG-defined food groups and subgroups. The first digit in the food code identifies one of nine major food groups:

(1) milk and milk products
(2) meat, poultry, fish, and mixtures
(3) eggs
(4) legumes, nuts, and seeds
(5) grain products
(6) fruits
(7) vegetables
(8) fats, oils, and salad dressings
(9) sugars, sweets, and beverages

The second, third, and (sometimes) fourth digits of a food code identify increasingly more specific subgroups within the nine major food groups. The remaining digits are used for identification of particular foods within a numerical sequence. Shown below is an example of a food item and how the first three digits signify which groups the food item belongs to:

55103000 Pancakes, with fruit
-- The first digit (5) means this food item belongs in the **Grain Products** section.
-- The first two digits (55) mean this item belongs in the **Pancakes, Waffles, French Toast, Other Grain Products** section.
-- The first three digits (551) mean this food item is in the **Pancake** section.

The food coding scheme provides an outline of the major food groups and subgroups identified by the first 1 to 4 digits of the food code. The coding scheme is in appendix B.

The FSRG-defined food groups that are used in reporting dietary intakes are in appendix C, along with lists of the food codes that fall into each food group and subgroup.

NOTES ABOUT FOODS IN THE DATABASE

Brand names

Brand names are included in the Main Food Descriptions file for many ready-to-eat cereals, infant formulas, and candies. These foods have unique food codes and also carry separate nutrient profiles in the Nutrients component of the database. Brand names with separate codes and nutrient profiles are not included for other food groups because comprehensive, brand-specific nutrient values are not available in our data source, SR 16-1. Many brand names for other types of foods are included in the Additional Food Descriptions file to facilitate the selection of food codes for What We Eat in America/NHANES. Although items in the Additional Food Descriptions file do not have unique food codes, they are linked to specific codes as explained elsewhere in this documentation. Many of the descriptions in the Food Portions and Weights component of the database are also brand specific, with their own separate weights.

Food intake files for What We Eat in America-NHANES 2001-2002 identify foods by food code only. For that reason, consumption of specific brands can be identified only for those foods with unique food codes, i.e., ready-to-eat cereals, infant formulas, and candies.

Fortified bars

Many new fortified bars appeared on the market in the last few years. Two Main Food Descriptions for fortified bars appear in this release of the database, one representing high-energy bars and one representing high-protein bars. USDA will reevaluate the database entries for fortified bars before the next release of the database.

DEFAULTS USED FOR CODING FOODS AND AMOUNTS IN WHAT WE EAT IN AMERICA/NHANES 2001-2002

Foods

In What We Eat in America/NHANES, 24-hour recalls were conducted using the USDA Automated Multiple-Pass Method (AMPM), a computerized instrument that provides standardized questions for all types of foods. When respondents were unable to answer all questions about a food, a food code was selected that contained the term "not (further) specified" in its description. Because the number of characters used in descriptions is limited, "not specified" is abbreviated "NS" and "not further specified" is abbreviated "NFS."

Examples of the use of these terms in food coding follow:

1. A respondent reported eating a chicken drumstick but could not answer questions about how it was cooked or whether the skin was eaten. The best match for the information available about the food was "Chicken, drumstick, NS as to cooking method, NS as to skin eaten," the main food description for food code 24140200.
2. A respondent reported milk but was unable to provide any additional information. The food code selected was 11100000, "Milk, NFS."

Amounts

When a respondent in What We Eat in America/NHANES could not describe the portion that was eaten, the portion description "Quantity not specified" (abbreviated "QNS") was chosen (portion code 90000). Because it is unusual for a respondent not to describe the amount of a food consumed, QNS values are not used frequently when coding food consumption data. For that reason, the FNDDS does not contain a QNS value for every food. In the Food Weights file, missing QNS values are identified with a –9 in the portion weight field for portion code 90000.

QNS values are usually based on a common measure of the food, but they do not necessarily represent the amount reported by most respondents. Database users should not assume that QNS values will accurately represent the average amount of a food consumed.

DEVELOPMENT AND UPDATING OF THE FNDDS

Development and Updating

The FNDDS has developed over several decades of USDA food surveys (Bodner and Perloff, 2003). The FNDDS is updated regularly to reflect the US food supply by incorporating new foods, ethnic foods, and nutrient-modified foods, as required for processing What We Eat in America/NHANES. A new version of the FNDDS will be released every 2 years, in parallel with the release of the What We Eat in America/NHANES data.

As What We Eat in America/NHANES food intakes are processed and the reported foods and amounts are coded, the data in the Food Descriptions and Food Portions and Weights components undergo continual review. Foods or portions that cannot be matched to items in the database are resolved by FSRG scientists. New food items and new portion sizes are added as needed. Information about new foods and package sizes is collected using internet resources, direct contact with manufacturers, or food labels. In addition to the monitoring of information reported by What We Eat in America/NHANES respondents, a regular planned program of data review is conducted. Items to be evaluated are selected based on a priority scheme related to frequency of use or contribution to energy intake, by race-ethnic group and by age group.

The FNDDS Nutrient Values file is updated every other year, using the latest release of the SR and corresponding with the release of What We Eat in America/NHANES data. Updates include the complete nutrient profile for new foods; they may also include new nutrients for existing foods and new units of expression for existing nutrients. Values for new nutrients are added when sufficient analytical data are available for major contributors of the nutrient to permit NDL to calculate values for all 2,600 SR foods that serve as the basis of the FNDDS. A systematic review of nutrient values in foods is conducted based on their contribution to intakes. All foods that contribute 1 percent or more to intake of any nutrient are reviewed.

New entries are added to the FNDDS-SR Links file as new food codes are added to the Food Descriptions files. Before each biannual update of the FNDDS Nutrient Values, the FNDDS-SR Links are revised to reflect updates to SR when appropriate. For example, all links involving ground beef items were revised in 2003 to accommodate new entries in the SR for ground beef. Before new nutrients are added to FNDDS, links are reviewed to ensure their appropriateness. For example, food mixtures with vegetables were reviewed in anticipation of adding carotenoids to the database. A biannual review is also made of existing links that represent composites for milk, vegetable oil, and some other foods. The links are compared with food production and disappearance data from USDA's Economic Research Service and other sources, and the links are revised to reflect the current U.S. marketplace.

The size and complexity of the FNDDS necessitate careful quality control practices to ensure accuracy and consistency of the data. A comprehensive quality control plan is in place to ensure that interrelationships are maintained among the various database files and that updates do not introduce errors (Anderson, Steinfeldt, and Ahuja, 2004). In addition, historical files are maintained to provide documentation of all changes in database values.

Changes Since the Previous Version of the Database

To create the FNDDS, files[2] used with past USDA food consumption surveys were updated and redesigned. This section outlines changes made to the files between the last public release (U.S. Department of Agriculture, Agricultural Research Service, 2000a, 2000b) and FNDDS-1.0. The types of changes include terminology (names of database, files, and fields), release format, database and file structures, and nutrients (changed units, nutrients or food components added), as well as revised and updated data values.

[2] Those files had been referred to as the "Technical Support Files (or Databases)" or as the "USDA Survey Nutrient Database."

Table 13: Changes between release of Technical Support Files with the Continuing Survey of Food Intakes by Individuals (CSFII) 1994-96, 1998 and FNDDS-1.0

	Previous	**New**
database name	CSFII Technical Support Files	USDA Food and Nutrient Database for Dietary Studies (FNDDS)
release format/medium	CD-ROM, available for sale from National Technical Information Service	free download from FSRG website
format of data files/records	ASCII only	Microsoft Access® and ASCII
data	--	added code numbers and descriptions for new foods reported in What We Eat in America/NHANES
		updated food weights and measures to reflect fast food and other individually sized products
updated nutrient values and units of expression based on latest version of SR (16.1)	--	dropped: vitamin A (IU), vitamin A (RE), carotenes, vitamin E (αTE)
		added: total sugars, retinol, vitamin A in retinol activity equivalents (RAE), alpha carotene, beta carotene, beta cryptoxanthin, lycopene, lutein + zeaxanthin (a single value for the sum), vitamin E as alpha-tocopherol, vitamin K, folic acid, food folate, and folate in dietary folate equivalents (DFE)
number of decimal places to which nutrient values are rounded	all nutrient values expressed to 3 decimal places	number of decimal places varies by nutrient; rounding is consistent with SR
term used to describe food amounts	measure descriptions	portion descriptions

--table continued on facing page--

--table 13, continued--

	Previous	**New**
location of food descriptions and portion weight information	files were part of the “Food Coding Database” (or “the Codebook")	separated into 2 components of the FNDDS - “Food Descriptions” and “Food Portions and Weights”
location of Food Code-Subcode Links and Subcode Descriptions files	part of the Food Coding Database	part of the Food Portions and Weights component of the FNDDS
name and location of files that store the formulas or “recipes” used to calculate nutrient values for survey foods	released as a separate "Recipe Database"	FNDDS-SR Links file, included with the Nutrients component of the FNDDS
source of nutrient values	descriptions and nutrients were contained in the “Primary Data Set (PDS)” files, that were part of the “Nutrient Database and Related Files”	nutrient values for basic components drawn directly from the SR; users directed to NDL website for more information
location of factors to adjust for nutrient changes from cooking	Retention Factors file released as part of Nutrient Database	not released with FNDDS; file available on NDL website
file name changes	Recipe Headers file	Moisture & Fat Adjustments file
	Recipe Ingredients file	FNDDS-SR Links file
	Food Includes file	Additional Food Descriptions file
	Subcodes file	Food Code-Subcode Links
files no longer a part of FNDDS	Primary Data Set	SR 16-1 used as data source; available on NDL website
	Retention Factors File	available on NDL website
	Recipe Modifications	not released

Multi-Year Version of FNDDS

FNDDS-1.0 represents the years 2001 to 2002. It is a subset of the multi-year (1994-2002) database maintained by FSRG.

The multi-year database was designed to track changes in foods and facilitate analysis of intake trends in the United States (Anderson, Perloff, Ahuja, and Raper, 2001). When a food has changed over time, the database may contain more than one record for the same food item, with different dates to indicate the different time periods when each value is valid. For example, the level of folate in many products changed in 1998 when folate fortification became mandatory in cereal grains subject to standards of identity. Separate records exist in the multi-year FNDDS Nutrient Values file for the different folate levels. The time period associated with each level is designated by the fields “start date” and “end date.”

Most changes that occur in the multi-year database are associated with changes in SR nutrient values. When nutrient values change in the SR for foods used in the FNDDS, NDL determines the classification of each change, i.e., data change versus food change.

Some changes to data values occur because a food actually changes, as in the case of new fortification levels or reformulation, or because a portion weight has changed. Such changes are classified as food changes and are assigned change type code “F.”

Other changes to data values occur because of improvements to the data. Improvements to nutrient values usually occur because of improved analytical procedures for determining the values, or because values are based on more representative samples of foods. For example, several thousand nutrient values have been revised since 1998, the date of the last release of the “Survey Nutrient Database,” the predecessor to the FNDDS. Those changes were largely due to improved food composition data generated by NDL’s National Food and Nutrient Analysis Program, or NFNAP (Pehrsson et al., 2000). Such changes are classified as data changes and are assigned change type code "D." Values classified as data changes replace older values in the database and do not require multiple records. It is valid to include those types of changed values in a database used to recalculate dietary intake data collected during a previous time period.

In FNDDS-1.0, as in the multi-year database, many of the data files include start date and end date fields. For FNDDS-1.0, the start date for all records is 1/1/2001 and the end date for all records is 12/31/2002. Three data files (Food Weights, Food Portion Descriptions, and FNDDS-SR Links) also include “change type” fields that contain information about changes to data values. While these codes generally serve no purpose for a single version subset of the database such as FNDDS-1.0, they are included to keep the format consistent with the multi-version format.

The multi-year files are not included with FNDDS-1.0, but can be provided to researchers under data sharing agreements. The multi-year database provides opportunities for research, for example:

- To investigate the real differences in nutrient intakes before and after fortification levels change, or the apparent differences before and after changes in the units for a nutrient value.

- To re-analyze food intake data collected in earlier years, taking advantage of the improved data in a new version of the FNDDS, but maintaining the integrity of food values for the original time period.

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APPENDIXES

Appendix A. List of Nutrients/Food Components (Unit)

Food energy (kcal)
Protein (g)
Carbohydrate (g)
Fat, total (g)
Alcohol (g)

Sugars, total (g)
Dietary fiber, total (g)
Water (g)

Saturated fatty acids, total (g)
Monounsaturated fatty acids, total (g)
Polyunsaturated fatty acids, total (g)
Cholesterol (mg)

Individual fatty acids:
- 4:0 (g)
- 6:0 (g)
- 8:0 (g)
- 10:0 (g)
- 12:0 (g)
- 14:0 (g)
- 16:0 (g)
- 18:0 (g)
- 16:1 (g)
- 18:1 (g)
- 20:1 (g)
- 22:1 (g)
- 18:2 (g)
- 18:3 (g)
- 18:4 (g)
- 20:4 (g)
- 20:5 n-3 (g)
- 22:5 n-3 (g)
- 22:6 n-3 (g)

Vitamin A as retinol activity equivalents (µg)
Retinol (µg)
Carotenoids:
- Carotene, alpha (µg)
- Carotene, beta (µg)
- Cryptoxanthin, beta (µg)
- Lycopene (µg)
- Lutein + zeaxanthin (µg)

Vitamin E as alpha-tocopherol (mg)
Vitamin K as phylloquinone (µg)
Vitamin C (mg)
Thiamin (mg)
Riboflavin (mg)
Niacin (mg)
Vitamin B-6 (mg)
Folate, total (µg)
Folate as dietary folate equivalents (µg)
- Folic acid (µg)
- Food folate (µg)

Vitamin B-12 (µg)

Calcium (mg)
Iron (mg)
Magnesium (mg)
Phosphorus (mg)
Potassium (mg)
Sodium (mg)
Zinc (mg)
Copper (mg)
Selenium (µg)

Caffeine (mg)
Theobromine (mg)

Appendix B. Food Coding Scheme

1 Milk And Milk Products

11 Milks and milk drinks

110 Milk, human
111 Milk, fluid (regular; filled; buttermilk; and dry reconstituted)
112 Milk, fluid, evaporated and condensed
113 Milk, fluid, imitation
114 Yogurt
115 Flavored milk and milk drinks, fluid
116 Milk-based meal replacements, fluid
117 Infant formulas, fluid, reconstituted concentrate, reconstituted dry, and ready-to-feed (milk-based formulas; soy-based formulas; therapeutic formulas)
118 Milk, dry, and powdered mixtures with dry milk, not reconstituted
119 Infant formulas, dry or concentrated fluid, not reconstituted

12 Creams and cream substitutes

121 Sweet dairy cream
122 Cream substitutes
123 Sour cream

13 Milk desserts, sauces, gravies

131 Milk desserts, frozen
132 Puddings, custards, and other milk desserts
133 Milk desserts baby food
134 White sauces and milk gravies

14 Cheeses

140 Cheese, ns as to type
141 Natural cheeses
142 Cottage cheeses
143 Cream cheeses
144 Processed cheeses and cheese spreads
145 Imitation cheeses
146 Cheese mixtures
147 Cheese soups

2 Meat, Poultry, Fish and Mixtures

20 Meat, ns as to type

200 Meat, ns as to type

21 Beef

210 Beef, nfs
211 Beef steak
213 Beef oxtails, neckbones, short ribs, head
214 Beef roasts, stew meat, corned beef, beef brisket, sandwich steaks
215 Ground beef, beef patties, beef meatballs
216 Other beef items (beef bacon; dried beef; pastrami)
217 Beef baby food

22 Pork

220 Pork, nfs; ground, dehydrated
221 Pork chops
222 Pork steaks, cutlets
223 Ham
224 Pork roasts
225 Canadian bacon
226 Bacon, salt pork
227 Other pork items (spareribs; cracklings; skin; miscellaneous parts)
228 Pork baby food

23 Lamb, veal, game, other carcass meat

230 Lamb, nfs
231 Lamb and goat
232 Veal
233 Game
234 Lamb or veal baby food

24 Poultry

241 Chicken (breast; leg; drumstick; wing; back; neck or ribs; misc.)
242 Turkey
243 Duck
244 Other poultry
247 Poultry baby food

25 Organ meats, sausages and lunchmeats, and meat spreads

251 Organ meats and mixtures
2511 Liver
2512 Hearts
2513 Kidney
2514 Sweetbreads
2515 Brains
2516 Tongue
2517 Other variety meats

2518 Variety meats baby food

252 Frankfurters, sausages, lunchmeats, meat spreads

2521 Frankfurters

2522 Sausages

2523 Luncheon meats (loaf)

2524 Potted meat, spreads

26 Fish and shellfish

261 Finfish

262 Other seafood

263 Shellfish

27 Meat, poultry, fish with nonmeat items

271 Meat, poultry, fish in gravy or sauce or creamed

2711 Beef in gravy or sauce (tomato-based sauce; gravy; cream, white, or Soup-based sauce; soy-based sauce; other sauce; Puerto Rican)

2712 Pork with gravy or sauce

2713 Lamb and veal with gravy or sauce

2714 Poultry with gravy or sauce (tomato-based sauce; gravy; cream, white, or Soup-based sauce; soy-based sauce; other sauces; Puerto Rican)

2715 Fish, shellfish with gravy or sauce

2716 Miscellaneous meats with gravy or sauce

272 Meat, poultry, fish with starch item (include white potatoes)

2721 Beef with starch item (potatoes; noodles; rice; bread; Puerto Rican)

2722 Pork with starch item

2723 Lamb, veal, game with starch item

2724 Poultry with starch item (potatoes; noodles; rice; bread)

2725 Fish, shellfish with starch item

2726 Miscellaneous meats with starch item

273 Meat, poultry, fish with starch item and vegetables

2731 Beef with starch and vegetable (potatoes; noodles; rice; bread; Puerto Rican)

2732 Pork with starch and vegetable

2733 Lamb, veal, game with starch and vegetable

2734 Poultry with starch and vegetable (potatoes; noodles; rice; bread; Puerto Rican)

2735 Fish, shellfish with starch and vegetable

2736 Miscellaneous meats with starch and vegetable

274 Meat, poultry, fish with vegetables (excluding white potatoes)

2741 Beef with vegetable, no potatoes

2742 Pork with vegetable, no potatoes

2743 Lamb, veal, game with vegetable, no potatoes

2744 Poultry with vegetables, no potatoes

2745 Fish, shellfish with vegetables, no potatoes

2746 Miscellaneous meats with vegetable, no potatoes

275 Sandwiches with meat, poultry, fish

2751 Beef sandwiches
2752 Pork sandwiches
2754 Poultry sandwiches
2755 Fish, shellfish sandwiches
2756 Frankfurters, luncheon meat, potted meat sandwiches
2757 Hors d'oeuvres, finger sandwiches
276 Meat, poultry, fish with nonmeat items baby food
2761 Beef mixtures baby food
2762 Pork mixtures baby food
2763 Lamb, veal mixtures baby food
2764 Poultry mixtures baby food
27644 Soups baby food
2765 Fish mixtures baby food

28 Frozen and shelf-stable plate meals, soups, and gravies with meat, poultry, fish base; gelatin and gelatin-based drinks

281 Frozen or shelf-stable plate meals with meat, poultry, fish as major ingredient
2811 Beef frozen or shelf-stable meals
2812 Pork or ham frozen or shelf-stable meals
2813 Veal frozen or shelf-stable meals
2814 Poultry frozen or shelf-stable meals
2815 Fish, shellfish frozen meals
2816 Miscellaneous meat frozen or shelf-stable meals
283 Soups, broths, extracts from meat, poultry, fish base
2831 Beef soups
2832 Pork soups
2833 Lamb soups
2834 Poultry, soups
28345 Poultry cream soups
2835 Fish, shellfish soups
2836 Puerto Rican soups
284 Gelatin and gelatin-based meal supplements
285 Gravies from meat, poultry, fish base

3 Eggs

31 Eggs

311 Chicken eggs

312 Other poultry eggs

32 Egg mixtures

321 Egg dishes

322 Egg sandwiches

323 Egg soups

324 Meringues

33 Egg substitutes

330 Egg substitute, ns as to form

331 Egg substitute, from powdered mixture

332 Egg substitute, from frozen mixture

333 Egg substitute, from liquid mixture

34 Eggs baby food

341 Eggs baby food

35 Frozen plate meals with egg as major ingredient

350 Frozen plate meals with egg as major ingredient

Previous view

4 Dry beans, peas, other legumes, nuts, and seeds

41 Legumes

411 Dried beans
412 Dried beans mixtures
413 Dried peas, lentils, and mixtures
414 Soybean derived products (excluding milks)
415 Frozen plate meals with legumes as major ingredient
416 Soups with legumes as major ingredient
417 Legumes baby food
418 Meat substitutes, mainly legume protein
419 Meat substitute sandwiches

42 Nuts, nut butters, and nut mixtures

421 Nuts
422 Nut butters
423 Nut butter sandwiches
424 Coconut beverages
425 Nut mixtures

43 Seeds and seed mixtures

431 Seeds

44 Carob products

441 Carob powder, flour
442 Carob chips, syrup

5 Grain products

50 Flour and dry mixes

500 Flour and dry mixes

51 Yeast breads, rolls

510 Breads, rolls, nfs
511 White breads, rolls
512 Whole wheat breads, rolls
513 Wheat, cracked wheat breads, rolls
514 Rye breads, rolls
515 Oat breads
516 Multigrain breads, rolls
517 Cottonseed breads
518 Other breads

52 Quick breads

521 Biscuits
522 Cornbread, corn muffins, tortillas
523 Other muffins, popovers
524 Other quick breads

53 Cakes, cookies, pies, pastries

531 Cakes
532 Cookies
533 Pies (fruit pies; pie tarts; cream, custard, and chiffon pies; miscellaneous pies; pie shells)
534 Cobblers, eclairs, turnovers, other pastries
535 Danish, breakfast pastries, doughnuts, granola bars
536 Coffee cake, not yeast

54 Crackers and salty snacks from grain products

540 Crackers, ns as to type
541 Sweet crackers
542 Low sodium crackers
543 Nonsweet crackers
544 Salty snacks from grain products

55 Pancakes, waffles, french toast, other grain products

551 Pancakes
552 Waffles
553 French toast
554 Crepes
555 Flour-water patties
556 Flour-milk patties
557 Rice flour cakes
558 Funnel cakes

56 Pastas, cooked cereals, rice

561 Pastas

Previous view

562 Cooked cereals, rice

57 Cereals, not cooked or ns as to cooked

570 Cereal, ns as to cooked

571 Ready-to-eat cereals

572 Ready-to-eat cereals

573 Ready-to-eat cereals

574 Ready-to-eat cereals

576 Cereal grains, not cooked

578 Cereals baby food

58 Grain mixtures, frozen plate meals, soups

581 Mixtures, mainly grain, pasta, or bread

582 Mixtures, mainly grain, pasta, or bread

583 Frozen plate meals with grain mixture as major ingredient

584 Soups with grain product as major ingredient

585 Grain mixtures baby food

59 Meat substitutes, mainly cereal protein

590 Meat substitutes, mainly cereal protein

Previous view

6 Fruits

61 Citrus fruits, juices

611 Citrus fruits

612 Citrus fruit juices

62 Dried fruits

621 Dried fruits

63 Other fruits

631 Fruits, excluding berries

632 Berries

633 Mixtures of two or more fruits

634 Mixtures of fruits and nonfruit items

64 Fruit juices and nectars excluding citrus

641 Fruit juices, excluding citrus

642 Nectars

644 Vinegar

67 Fruits and juices baby food

671 Fruits and fruit mixtures baby food

672 Fruit juice and fruit juice mixtures baby food

673 Fruits with cereal baby food

674 Fruit desserts and fruit-flavored puddings and yogurt baby food

675 Fruits with meat or poultry baby food

7 Vegetables

71 White potatoes and puerto rican starchy vegetables

710 White potatoes, nfs
711 White potatoes, baked and boiled
712 White potatoes, chips and sticks
713 White potatoes, creamed, scalloped, au gratin
714 White potatoes, fried
715 White potatoes, mashed, stuffed, puffs
716 Potato salad
717 Potato recipes
718 Potato soups
719 Puerto Rican starchy vegetables

72 Dark-green vegetables

721 Dark-green leafy vegetables
722 Dark-green nonleafy vegetables
723 Dark-green vegetable soups

73 Deep-yellow vegetables

731 Carrots
732 Pumpkin
733 Squash, winter
734 Sweetpotatoes
735 Deep-yellow vegetable soups

74 Tomatoes and tomato mixtures

741 Tomatoes, raw
742 Tomatoes, cooked
743 Tomato juices
744 Tomato sauces
745 Tomato mixtures
746 Tomato soups
747 Tomato sandwiches

75 Other vegetables

751 Other vegetables, raw
7514 Raw vegetable mixtures
752 Other vegetables, cooked
753 Other vegetable mixtures, cooked
754 Other cooked vegetables, cooked with sauces, batters, casseroles
755 Olives, pickles, relishes (excluding tomatoes)
756 Vegetable soups

76 Vegetables and mixtures mostly vegetables baby food

761 Dark-green vegetables baby food
762 Deep-yellow vegetables baby food
764 Vegetables other than dark-green, deep-yellow, and tomato baby food
765 Vegetables with grain baby food

Previous view

766 Vegetables with meat baby food
767 Vegetables with liver baby food
768 Vegetable soups baby food

77 Vegetables with meat, poultry, fish

771 White potato with meat, poultry, fish (mixtures)
772 Puerto Rican starchy vegetable (viandas) mixtures
773 Other vegetable mixtures
775 Puerto Rican stews or soups with starchy vegetables (viandas)

Previous view

8 Fats, oils, and salad dressings

81 Fats

811 Table fats

812 Cooking fats

813 Other fats

82 Oils

821 Vegetable oils

83 Salad dressings

831 Regular salad dressings

832 Low-calorie and reduced calorie salad dressings

Previous view

9 Sugars, sweets, and beverages

91 Sugars and sweets

911 Sugars and sugar-sugar substitute blends
912 Sugar replacements or substitute
913 Syrups, honey, molasses, sweet toppings
914 Jellies, jams, preserves
915 Gelatin desserts or salads
916 Ices or popsicles
917 Candies
918 Chewing gums

92 Nonalcoholic beverages

921 Coffee
922 Coffee substitutes
923 Tea
924 Soft drinks, carbonated
925 Fruitades and drinks
9252 Fruitades and drinks, low calorie, ns as to vitamin c content
9253 Fruitades and drinks with added vitamin c, ready- to-drink or made from frozen concentrate
9254 Fruit-flavored drinks with added vitamin c, made from powdered mix
9255 Fruitades, drinks, and juice drinks, low calorie
9256 Beverages, low sugar, fruit-flavored, no vitamin c added, ready-to-drink
9257 Beverages, fluid replacement
9258 Beverages, fruit-flavored, fortified
926 Beverages, nonfruit
9265 Beverages, nonfruit, fortified (include energy drinks)
927 Beverages, noncarbonated, without vitamin c, made from powdered mixes
928 Nonalcoholic beers, wines, cocktails
929 Beverage concentrates, dry, not reconstituted

93 Alcoholic beverages

931 Beers and ales
932 Cordials and liqueurs
933 Cocktails
934 Wines
935 Distilled liquors

94 Water as an ingredient

940 Water as an ingredient

Appendix C. FSRG-Defined Food Groups – What Each Group Includes and Excludes and Food Codes in Each Group

Grain Products

Total grain products

Includes

yeast breads, rolls, cereals, pastas, quick breads, pancakes, French toast, cakes, cookies, pastries, pies, crackers, popcorn, pretzels, corn chips, and mixtures having a grain product as a main ingredient.

Excludes

grain products that were ingredients in food mixtures coded as a single item and tabulated under another food group. For example, noodles in tuna-noodle casserole are tabulated under Meat, Poultry, and Fish.

Also, the bread in a grilled cheese sandwich coded as a single item is tabulated under Milk and Milk Products.

Variable name	Food group	Food Code Number
GRAIN0	Total grain products	5-- -----

Yeast breads and rolls

Includes

white, whole-wheat, "wheat," cracked-wheat, rye, pumpernickel, oatmeal, multigrain, and other yeast breads and rolls (excluding sweet rolls), bread stuffing, English muffins, bagels, and croutons.

Variable name	Food group	Food Code Number
GRAIN1	Total yeast breads and rolls	510 ----- or 511 0100- thru 511 5900- or 511 8---- or 512 ----- thru 518 -----

Previous view

Total cereals, rice, pasta

Includes

macaroni, noodles, spaghetti, grits, oatmeal, rice, other cooked cereal grains, unsweetened and sweetened ready-to-eat cereals, baby food cereals, and mixtures of baby cereal and fruit.

Variable name	Food group	Food Code Number
GRAIN2	Total cereals and pastas	56- ----- or 57- -----

Ready-to-eat cereals

Includes

unsweetened and sweetened ready-to-eat cereals.

Variable name	Food group	Food Code Number
GRAIN21	Ready-to-eat cereals	571 ----- thru 574 ----- or 578 3010-

Rice

Includes

white, brown, and wild rice.

Variable name	Food group	Food Code Number
GRAIN22	Rice	562 049-- thru 562 051-- or 562 0521- or 562 053-- thru 562 055-- or 576 03--- or

Pasta

Includes

macaroni, noodles, and spaghetti.

Variable name	Food group	Food Code Number
GRAIN23	Pasta	561 -----

Quick breads, pancakes, French toast

Includes

biscuits, cornbread, tortillas, muffins, other quick breads, pancakes, waffles, and French toast.

Excludes

quick-bread-type coffee cakes.

Variable name	Food group	Food Code Number
GRAIN3	Quick breads, pancakes,french toast	52- ----- or 55- -----

Cakes, cookies, pastries, pies

Includes

yeast-type sweet rolls, yeast- and crumb- or quick-bread-type coffee cakes, croissants, cakes, cookies, pies, cobblers, turnovers, Danish pastries, doughnuts, breakfast bars and tarts, granola bars, and sweet crackers.

Variable name	Food group	Food Code Number
GRAIN4	Cakes, cookies, pastries,pies	511 6---- or 53- - ---- or 541 0101- thru 541 0220-

Previous view

Crackers, popcorn, pretzels, corn chips

Includes

mixtures having a grain product as a main ingredient, such as burritos, tacos, pizza, egg rolls, quiche, spaghetti with sauce, rice and pasta mixtures; frozen meals in which the main course is a grain mixture; noodle and rice soups; and baby-food macaroni and spaghetti mixtures.

Variable name	Food group	Food Code Number
GRAIN5	Crackers, popcorn, pretzels,corn chips	542 ----- thru 544 -----

Mixtures mainly grain

Includes

mixtures having a grain product as a main ingredient, such as burritos, tacos, pizza, egg rolls, quiche, spaghetti with sauce, rice and pasta mixtures; frozen meals in which the main course is a grain mixture; noodle and rice soups; and baby-food macaroni and spaghetti mixtures.

Variable name	Food group	Food Code Number
GRAIN6	Mixtures mainly grain	58- -----

Vegetables

Total vegetables

Includes

white potatoes, dark green and deep yellow vegetables, tomatoes, lettuce, green beans, corn, green peas, lima beans, other vegetables; mixtures having vegetables as a main ingredient; and vegetable juices.

Excludes

vegetables that are ingredients in food mixtures coded as a single item and tabulated under another food group. For example, potatoes or tomatoes in beef stew are tabulated under Meat, Poultry, and Fish.

Variable name	Food group	Food Code Number
VEG0	Total vegetables	7-- -----

White potatoes

Includes

baked, boiled, mashed, scalloped, and fried potatoes; potato chips; and mixtures having potatoes as a main ingredient, such as potato salad, stuffed baked potatoes, and potato soup.

Variable name	Food group	Food Code Number
VEG1	White potatoes, total	710 ---- thru 717---- or 718 0---- or 764 2---- or 771 -----

Previous view

Fried potatoes

Includes

french-fried, deep-fried, hash brown, and home-fried potatoes; potato skins; and potato chips.

Variable name	Food group	Food Code Number
VEG11	Fried potatoes	712 ----- or 714 ----- or 715 05--- or 771 21---

Dark green vegetables

Includes

raw and cooked broccoli and dark green leafy vegetables such as romaine, collards, mustard and turnip greens, kale, and spinach; mixtures having dark green vegetables as a main ingredient, such as broccoli with cheese sauce; and baby-food spinach.

Variable name	Food group	Food Code Number
VEG2	Dark-green vegetables	72- ----- or 751 47--- or 761 ----- or 766 04000

Deep yellow vegetables

Includes

raw and cooked deep yellow or orange vegetables such as carrots, pumpkin, winter squash, and sweet potatoes; mixtures having deep yellow vegetables as a main ingredient, such as peas and carrots and sweet potato casserole; and baby-food carrots, squash, and sweet potatoes.

Variable name	Food group	Food Code Number
VEG3	Deep-yellow vegetables	73- ----- or 762 ----- or 766 02--- or 766 04500

Tomatoes

Includes

raw and cooked tomatoes; tomato juice; catsup, chili sauce, salsa, and other tomato sauces; and mixtures having tomatoes as a main ingredient, such as tomato-based soups and tomato and corn coded as a single item.

Variable name	Food group	Food Code Number
VEG4	Tomatoes	74- -----

Lettuce, lettuce-based salads

Includes

lettuce and mixed salad greens; lettuce salad with assorted vegetables, cheese, or egg; and other lettuce-based salads.

Variable name	Food group	Food Code Number
VEG5	Lettuce	751 13--- thru 751 14--- or 751 43--- thru 751 46--- or 751 48--- or 752 2005-

Previous view

Green beans

Includes

raw or cooked green and yellow beans; mixtures having beans as a main ingredient, such as beans with tomatoes or onions, bean salad, and beans with cream or mushroom sauce; and baby-food green beans.

Variable name	Food group	Food Code Number
VEG6	Green beans	751 018-- or 752 049-- thru 752 060-- or 753 02--- or 753 1525- or 754 03--- thru 754 04--- or 755 001-- or 756 02--- or 764 01--- or 764 02--- or 766 115-

Corn, green peas, lima beans

Includes

raw or cooked green peas; cooked corn and lima beans; mixtures having corn, green peas, or lima beans as a main ingredient, such as creamed corn, corn pudding, peas and onions, or pea soup; and baby-food corn and green peas.

Excludes

dry lima beans and peas, which are tabulated under Legumes.

Variable name	Food group	Food Code Number
VEG7	Corn, green peas, lima beans	751 020-- or 751 096-- or 751 20--- or 752 040—thru 752 041-- or 752 160-- thru 752 163-- or 752 1749- thru 752 1752- or 752 24--- or 753 01--- or 753 03--- or 753 1500- thru 753 1521- or 753 153-- or 754 02--- or 754 11--- or 754 165-- thru 754 170-- or 755 01--- or 756 040-- or 756 09--- or 764 05--- or 764 09--- thru 764 11--- or 765 02---

Previous view

Other vegetables

Includes

raw and cooked vegetables other than the following: white potatoes, dark green and deep yellow vegetables, tomatoes, lettuce, green beans, corn, peas, and lima beans and their mixtures.

vegetable soups; pickles, olives, and relishes; mixtures having "other" vegetables as a main ingredient; baby-food vegetables and baby-food vegetable mixtures with meat.

Variable name	Food group	Food Code Number
VEG8	Other vegetables	718 5---- or 719 ----- or 751 003 --- thru 751 010 -- or 751 025 --- thru 751 095 -- or 751 11 --- thru 751 12 -- or 751 15 --- thru 751 19 -- or 751 21 --- thru 751 42 -- or 752 006 --- thru 752 030 -- or 752 07--- thru 752 15-- or 752 1670-- thru 752 1740-- or 752 1771-- thru 752 2002-- or 752 201--- thru 752 230-- or 752 25--- thru 752 36-- or 753 06--- thru 753 11-- or 753 16--- thru 753 65-- or 754 00--- thru 754 01-- or 754 05--- thru 754 10-- or 754 120--- thru 754 160-- or 754 18--- thru 754 60-- or 755 002--- thru 755 005-- or 755 02--- thru

Previous view

		755 35-- or 756 01--- thru 756 03-- or 756 045--- thru 756 083-- or 756 1--- thru 756 5--- or 764 03--- or 764 07--- or 765 01--- or 766 01--- or 766 03--- or 766 050-- thru 766 110-- or 768 ----- or 772 ----- or 773 ----- or 775 -----

Fruits

Total fruits

Includes

citrus fruits and juices, dried fruits, and other fruits; mixtures having fruit as a main ingredient; and fruit juices.

Excludes

fruits that are ingredients in food mixtures coded as a single item and tabulated under another food group. For example, apples in apple pie are tabulated under Grain Products.

Variable name	Food group	Food Code Number
FRUIT0	Total fruits	611 0--- thru 634 1---or 641 ---- thru 676 ----

Total citrus fruits and juices

Includes

oranges and other citrus fruits, mixtures of orange juice and other citrus juices, and baby-food citrus juices.

Excludes

citrus fruit drinks and ades such as lemonade, which are tabulated under Beverages.

Variable name	Food group	Food Code Number
FRUIT1	Total citrus fruits and juices	611 ---- or 612 01-- thru 612 13--or 612 16--- or 672 0500-

Previous view

Citrus juices

Includes

fresh, frozen, canned, or bottled grapefruit, lemon, lime, orange, and other citrus juices, either sweetened or unsweetened; mixtures of citrus juices such as grapefruit and orange juice; and baby-food citrus juices.

Excludes

mixtures of citrus juices with noncitrus juices, which are tabulated under "noncitrus juices and nectars."

Variable name	Food group	Food Code Number
FRUIT11	Citrus juices	612 01-- thru 612 13--or 612 16--- or 672 0500-

Dried fruits

Includes

dried apples, apricots, dates, prunes, raisins, and other dried fruits.

Excludes

juices such as prune juice, which are tabulated under "other fruits, mixtures, and juices."

Variable name	Food group	Food Code Number
FRUIT2	Dried fruits	621 -----

Total other fruits, mixtures, juices

Includes

raw, frozen, cooked, and canned apples, bananas, melons, berries, and other fruits except citrus and dried fruit; mixtures that are mainly noncitrus fruit; noncitrus juices (including prune juice) and nectars; mixtures of citrus and noncitrus juices; and baby-food noncitrus fruits and juices, fruits with tapioca, and fruit desserts.

Excludes

fruit drinks and ades, which are tabulated under Beverages.
frozen fruit-juice bars and sorbets, which are tabulated under Sugars and Sweets.

Variable name	Food group	Food Code Number
FRUIT3	Total other fruits, mixtures, juices	612 0050- or 612 14--- or 612 19--- thru 612 26--- or 631 01--- thru 631 49--- or 632 ----- or 633 ----- or 634 01--- thru 634 15--- or 641 0011- thru 642 2101- or 671 ----- or 672 02--- thru 672 04--- or 672 11--- thru 672 50--- or 673 ----- or 674 ----- or 675 ----- or 676 -----

Apples

Includes

raw and cooked apples, applesauce, and baby-food applesauce.

Variable name	Food group	Food Code Number
FRUIT31	Apples	631 0100- thru 631 0114- or 631 012-- thru 631 015-- or 671 02--- or 671 003--

Bananas

Includes

raw and cooked bananas and baby-food bananas.

Excludes

the starchy vegetables called plantains or "green bananas," which are tabulated under Vegetables in the subgroup "other."

Variable name	Food group	Food Code Number
FRUIT32	Bananas	631 070-- thru 631 073-- or 671 05--- or

Melons and berries

Includes

cantaloupe, honeydew melon, watermelon, blueberries, blackberries, raspberries, strawberries, and cranberries.

Variable name	Food group	Food Code Number
FRUIT33	Melons and berries	631 0901- or 631 0961- or 631 10--- or 631 27--- or 631 49--- or 632 -----

Other fruits and mixtures, mainly fruit

Includes

fruits other than citrus fruits, dried fruit, apples, bananas, melons, and berries; mixtures of noncitrus fruits and mixtures that are mainly noncitrus fruits coded as a single item such as fruit salad with salad dressing, marshmallow, or pudding; and baby-food noncitrus fruits and mixtures having fruit as a main ingredient.

Variable name	Food group	Food Code Number
FRUIT34	Other fruits and mixtures mainly fruit	631 0115- or 631 016-- or 631 02--- thru 631 05--- or 631 074-- or 631 097-- or 631 11--- thru 631 26--- or 631 29--- thru 631 48--- or 633 ----- or 634 01--- thru 634 15--- or 671 0010- or 671 0020- or 671 01--- or 671 04--- or 671 06--- or 671 08--- thru 671 14--- or 673 ----- or 674 ----- or 675 ----- 676 -----

Noncitrus juices and nectars

Includes

fruit juices, nectars, and baby-food juices other than citrus; and mixtures of citrus juices with noncitrus juices.

Excludes

fruit drinks and ades, which are tabulated under Beverages.

Variable name	Food group	Food Code Number
FRUIT35	Noncitrus juices and nectars	612 0050- or 612 14--- or 612 19--- thru 612 26--- or 641 0011- thru 642 2101- or 672 02--- thru 672 04--- or 672 11--- thru 672 50--- or

Milk and Milk Products

Total milk and milk products

Includes

milk and milk drinks, yogurt, milk desserts, and cheese

fluid and whipped cream, half-and-half, sour cream, and milk sauces and gravies are included in this total but not in any of the following subgroups.

Excludes

butter and nondairy sweet cream and sour cream substitutes, which are tabulated under Fats and Oils.

milk and milk products that are ingredients in food mixtures coded as a single item and tabulated under another food group. For example, cheese on pizza is tabulated under Grain Products.

Variable name	Food group	Food Code Number
MILK0 And MILK0C	Total Milk and milk products	111 ----- or 112 ----- or 113 4---- or 114 ----- or 115 ----- or 116 ----- or 117 1---- or 117 4---- or 118 ----- or 119 4010- or 121 ----- or 123 1---- or 123 202-- or 123 5---- or 13- ----- or 14- -----

Previous view

Total milk, milk drinks, yogurt

Includes

fluid milk and yogurt. Flavored milk and milk drinks, meal replacements with milk, milk-based infant formulas, and unreconstituted dry milk and powdered mixtures are included in this total but not in any of the following subgroups.

Variable name	Food group	Food Code Number
MILK1	Total milk, milk drinks,yogurt	111 ----- or 112 ----- or 114 1---- thru 114 4---- or 115 ----- or 116 ----- or 117 1---- or 117 4---- or 118 ----- or 119 4010-

Total fluid milk

Includes

fluid whole, low-fat, skim, and acidophilus milk; buttermilk; reconstituted dry milk; evaporated milk; and sweetened condensed milk.

Variable name	Food group	Food Code Number
MILK11	Total fluid milk	111 ----- or 112 -----

Whole milk

Includes

whole fluid milk, low-sodium whole milk, and reconstituted whole dry milk.

Variable name	Food group	Food Code Number
MILK111	Whole milk	111 1100- thru 111 1115- or 111 141-- or 111 16--- or 111 211--

Low-fat milk

Includes

low-fat (1 and 2 percent) milk, buttermilk (low-fat and nonfat), acidophilus milk, low-fat lactose-reduced fluid milk, and reconstituted low-fat dry milk.

Variable name	Food group	Food Code Number
MILK112	Lowfat milk	111 1116- or 111 12--- or 111 142-- or 111 1430- or 111 1431- or 111 1433- or 111 1520- or 111 212-- or 111 22---

Previous view

Skim milk

Includes

skim or nonfat fluid milk, lactose-reduced fluid nonfat milk, and reconstituted nonfat dry milk.

Variable name	Food group	Food Code Number
MILK113	Skim milk	111 1117- or 111 13--- or 111 1432- or 111 1500- or 111 213--

Yogurt

Includes

plain, flavored, and fruit-variety yogurt.

Excludes

frozen yogurt, which is tabulated under "milk desserts."

Variable name	Food group	Food Code Number
MILK2	Yogurt	114 1---- thru 114 4----

Milk desserts

Includes

ice cream, imitation ice cream, ice milk, sherbet, frozen yogurt, and other desserts made with milk, such as pudding, custard, and baby-food pudding.

Variable name	Food group	Food Code Number
MILK3	Milk desserts	114 5---- thru 114 6---- or 131 ----- or 132 ----- or 133 -----

Previous view

Cheese

Includes

natural hard and soft cheeses, cottage cheese, cream cheese, processed cheese and spreads, imitation cheeses, and mixtures having cheese as a main ingredient, such as cheese dips and cheese sandwiches coded as a single item.

Variable name	Food group	Food Code Number
MILK4	Cheese	14- -----

Previous view

Meat, Poultry, and Fish

Total meat, poultry, and fish

Includes

beef, pork, lamb, veal, game, organ meats, frankfurters, sausages, luncheon meats, poultry, fish, shellfish, and mixtures having meat, poultry, or fish as a main ingredient.

Excludes

meat, poultry, and fish that are ingredients in food mixtures coded as a single item and tabulated under another food group. For example, pepperoni on pizza is tabulated under Grain Products. Meat gravies and unflavored gelatin are included in this total but not in any of the following subgroups.

Variable name	Food group	Food Code Number
MEAT0	Total meat, poultry, fish	2-- -----

Beef

Includes

all cuts (including ground), corned beef, beef bacon, pastrami, and baby-food beef.

Excludes

organ meats, frankfurters, sausages, and luncheon meats.

Variable name	Food group	Food Code Number
MEAT1	Beef	21- -----

Pork

Includes

all cuts (including ground); pickled, smoked, and cured pork; ham; pork roll; bacon; salt pork; pig's feet; and pork rinds.

Excludes

organ meats, frankfurters, sausages, and luncheon meats.

Variable name	Food group	Food Code Number
MEAT2	Pork	220 --- thru 227 --- or 228 1----

Lamb, veal, game

Includes

lamb, veal, goat, venison, and other game.

Excludes

organ meats, frankfurters, sausages, and luncheon meats.

Variable name	Food group	Food Code Number
MEAT3	Lamb, veal, game	230 ----- or 231 ----- or 232 ----- or 233 10--- thru 233 21--- or 233 2230- thru 233 4510- 234 -----

Organ meats

Includes

liver, tripe, gizzards, and other organ meats.

Variable name	Food group	Food Code Number
MEAT4	Organ meats	251 -----

Frankfurters, sausages, luncheon meats

Includes

frankfurters, sausages, and luncheon meats made from beef, pork, ham, veal, game (deer bologna), chicken, and turkey; and baby-food meat sticks.

Variable name	Food group	Food Code Number
MEAT5	Frankfurters, sausages luncheon meats	200 0009- or 228 2000- or 233 2210- or 247 05--- thru 247 06--- or 252 -----

Total poultry

Includes

chicken, turkey, duck, cornish game hen, and baby-food chicken and turkey.

Excludes

organ meats (giblets), frankfurters, sausages, and luncheon meats.

Variable name	Food group	Food Code Number
MEAT6	Total poultry	241 ----- or 242 ----- or 243 ----- or 244 ----- or 247 01--- thru 247 03---

Chicken

Includes

only chicken.

Excludes

organ meats (giblets).

Variable name	Food group	Food Code Number
MEAT61	Chicken	241 ----- or 247 01---

Previous view

Fish and shellfish

Includes

finfish; shellfish, such as clams, crabs, lobster, oysters, scallops, and shrimp; and other seafood.

Variable name	Food group	Food Code Number
MEAT7	Fish and shellfish	26- -----

Mixtures mainly meat, poultry, fish

Includes

mixtures having meat, poultry, or fish as a main ingredient, such as chicken cacciatore; beef loaf; chili con carne; venison stew; hash; tuna salad; corn dog; chicken soup; frozen meals in which the main course is a meat, poultry, or fish item; meat, poultry, or fish sandwiches coded as a single item (for example, cheeseburger on a bun); and baby-food meat and poultry mixtures.

Variable name	Food group	Food Code Number
MEAT8	Mixtures mainly meat, poultry, fish	27- ----- or 281 ----- thru 283 -----

Eggs; Legumes; Nuts and Seeds; Fats and Oils; Sugars and Sweets

Eggs

Includes

whole eggs; egg whites; egg yolks; egg substitutes; and mixtures having egg as a main ingredient, such as omelets, egg salad, or egg sandwiches coded as a single item.

Excludes

eggs that are ingredients in food mixtures coded as a single item and tabulated under another food group. For example, eggs in baked goods are tabulated under Grain Products.

Variable name	Food group	Food Code Number
EGG0	Eggs	3-- -----

Legumes

Includes

cooked dry beans, peas, and lentils; mixtures having legumes as a main ingredient, such as baked beans or lentil soup; soybean-derived products, such as soy-based baby formulas, tofu, soy sauce, and soy-based meal replacements; and meat substitutes that are mainly vegetable protein.

Excludes

peanuts, which are tabulated under Nuts and Seeds.

legumes that are ingredients in food mixtures coded as a single item and tabulated under another food group. For example, beans in tacos are tabulated under Grain Products.

Variable name	Food group	Food Code Number
LEGUME0	Legumes	41- ----- or 113 1---- thru 113 3---- or 117 2----

Nuts and seeds

Includes

unroasted, roasted, and honey-roasted nuts and peanuts; coconut; peanut butter; peanut butter sandwiches coded as a single item; nut mixtures; and unroasted and roasted seeds.

Excludes

chocolate-covered nuts, which are tabulated under Sugars and Sweets in the subgroup "candy."

nuts and seeds that are ingredients in food mixtures coded as a single item and tabulated under another food group. For example, nuts in baked goods are tabulated under Grain Products.

Variable name	Food group	Food Code Number
NUTSEED0	Nuts and seeds	42- ----- thru 44- -----

Total fats and oils

Includes

table fats; cooking fats; vegetable oils; salad dressings; nondairy cream substitutes; and tartar sauce and other sauces that are mainly fat or oil.

Excludes

fats and oils that were ingredients in food mixtures coded as a single item and tabulated under another food group. For example, fats or oils used to fry chicken are tabulated under Meat, Poultry, and Fish. Also, mayonnaise in coleslaw is tabulated under Vegetables.

Variable name	Food group	Food Code Number
FAT0	Total fats and oils	8-- ----- or 122 ----- or 123 201--

Previous view

Table fats

Includes

butter, margarine, imitation margarine, margarine-like spreads, blends of butter with margarine or vegetable oil, and butter replacements.

Variable name	Food group	Food Code Number
FAT1	Table fats	811 -----

Salad dressings

Includes

regular and reduced- and low-calorie salad dressings and mayonnaise.

Variable name	Food group	Food Code Number
FAT2	Salad dressings	83- -----

Total sugars and sweets

Includes

sugar, sugar substitutes, syrups, honey, sweet toppings, frostings, sweet sauces, jellies, jams, preserves, fruit butters, marmalades, gelatin desserts, ices, fruit bars, popsicles, candy (including dietetic sweets), and chewing gum.

Excludes

sugars that were ingredients in food mixtures coded as a single item and tabulated under another food group. For example, sugar in baked goods is tabulated under Grain Products. Sugar in carbonated soft drinks is tabulated under Beverages.

Variable name	Food group	Food Code Number
SUGAR0	Total sugars and sweets	634 2---- thru 634 3---- or 91- -----

Sugars

Includes

white sugar, brown sugar, saccharin, aspartame, and other sugar substitutes.

Variable name	Food group	Food Code Number
SUGAR1	Sugars	911 ----- or 912 -----

Candy

Includes

all types of candy (including dietetic sweets), chocolate-covered nuts, chocolate chips, fruit leather, and chewing gum.

Variable name	Food group	Food Code Number
SUGAR2	Candy	917 ----- or 918 -----

Beverages

Total beverages

Includes

alcoholic and nonalcoholic beverages.

Excludes

plain tap water and noncarbonated bottled water.

beverages that are ingredients in food mixtures coded as a single item and tabulated under another food group. For example, wine in beef burgundy is tabulated under Meat, Poultry, and Fish.

Variable name	Food group	Food Code Number
BEV0	Total beverages	92- ----- or 93- -----

Previous view

Total alcoholic beverages

Includes

wine, beer, ale, liqueurs, cocktails, other mixed drinks, and distilled liquors.

Variable name	Food group	Food Code Number
BEV1	Total alcoholic beverages	931 01--- thru 931 02--- or 932 ----- thru 935 -----

Wine

Includes

wine, light wine, and mixtures made with wine, such as wine coolers.

Excludes

nonalcoholic wine, which is tabulated under "nonalcoholic beverages."

Variable name	Food group	Food Code Number
BEV11	Wine	934 -----

Beer and ale

Includes

beer, ale, and light (lite) beer.

Excludes

"near beer," which is tabulated under "nonalcoholic beverages."

Variable name	Food group	Food Code Number
BEV12	Beer and ale	931 01--- thru 931 02---

Previous view

Total nonalcoholic beverages

Includes

coffee, tea, fruit drinks and ades, and soft drinks. Near beer and nonalcoholic wine are included under this total but not in any of the following subgroups.

Variable name	Food group	Food Code Number
BEV2	Total nonalcoholic beverages	92- -----

Coffee

Includes

decaffeinated and regular coffee made from ground or instant coffee, coffee mixes, and coffee substitutes.

Variable name	Food group	Food Code Number
BEV21	Coffee	921 ----- or 922 01--- thru 922 03--- or 922 9----

Tea

Includes

decaffeinated and regular tea obtained ready to drink or made from leaves or from instant tea mixes with or without lemon, sugar, or artificial sweetener; and herb and other teas.

Variable name	Food group	Food Code Number
BEV22	Tea	922 04--- or 922 05--- or 923 -----

Previous view

Total fruit drinks and ades

Includes

regular and low-calorie fruit drinks, punches, and ades, including those made from powdered mix and frozen concentrate.

Excludes

fruit juices, which are tabulated under Fruits, and carbonated fruit drinks, which are tabulated under "carbonated soft drinks."

Variable name	Food group	Food Code Number
BEV23	Total fruit drinks and ades	925 ----- or 927 ----- or 929 -----

Regular fruit drinks and ades

Includes

all fruit drinks, punches, and ades except low-calorie and low-sugar types.

Variable name	Food group	Food Code Number
BEV231	Regular fruit drinks and ades	925 1011- thru 925 1061- or 925 1065- thru 925 1211- or 925 3---- or 925 4101- or 925 4102- or 925 4110- or 925 4200- or 925 4400- or 925 8205- or 925 8210- or 925 8211- or 927 3100- or 927 5100- or 929 001--

Low-calorie fruit drinks and ades

Includes

low-calorie and low-sugar fruit drinks, punches, and ades.

Variable name	Food group	Food Code Number
BEV232	Low-calorie fruit drinks and ades	925 2---- or 925 4104- or 925 4112- or 925 5---- thru 925 6---- or 925 8200- or 927 4100- or 929 0020- or 929 0030-

Total carbonated soft drinks

Includes

regular and low-calorie carbonated soft drinks, such as colas, fruit-flavored and cream sodas, ginger ale, root beer, and carbonated soft drinks containing fruit juice; carbonated fruit juice drinks; and sweetened and unsweetened carbonated water. Soft drinks not specified as either regular or low calorie are tabulated here but not in either of the following categories.

Variable name	Food group	Food Code Number
BEV24	Total carbonated soft drinks	924 -----

Regular carbonated soft drinks

Includes

all carbonated soft drinks except unsweetened and sugar-free types.

Variable name	Food group	Food Code Number
BEV241	Regular carbonated soft drinks	924 1011- or 924 1031- or 924 1033- or 924 1034- or 924 1036- or 924 1039- or 924 1041- or 924 1051- or 924 1055- or 924 1061- or 924 1071- or 924 1081- or 924 1151- or 924 1152- or 924 1601- or 924 1701- or 924 3100- or 924 3200- or 924 3300-

Low-calorie carbonated soft drinks

Includes

unsweetened and sugar-free carbonated soft drinks, and unsweetened carbonated water.

Variable name	Food group	Food Code Number
BEV242	Low calorie carbonated soft drinks	924 0010- or 924 1021- or 924 1025- or 924 1030- or 924 1032- or 924 1035- or 924 1037- or 924 1040- or 924 1042- or 924 1052- or 924 1056- or 924 1062- or 924 1072- or 924 1082- or 924 1161- or 924 1162-

Appendix D. Explanations of Selected Terms and Abbreviations

Abbreviated food description -- Shortened description for a food.

Additional food description – A secondary description associated with a specific food code and its main description; shares the same nutrient profile and portion weights.

AMPM – Abbreviation for the "USDA Automated Multiple-Pass Method."

ARS – Abbreviation for the "Agricultural Research Service."

ASCII – Abbreviation for "American Standard Code for Information Interchange."

BARC – Abbreviation for the "Beltsville Agricultural Research Center."

CD-ROM – Abbreviation for "compact disk, read only memory."

Change type code -- A letter signifying the type of change (data change or food change) to a value.

CSFII – Abbreviation for the "Continuing Survey of Food Intakes by Individuals."

Data change -- A type of change to a value, represented by “D” (for data improvement) in the change type field.

DFE – Abbreviation for "dietary folate equivalents."

End date -- Last date when a record was available for processing What We Eat in America/NHANES data. Most FNDDS files include two date fields (Start date and End date) indicating the time period corresponding to the What We Eat in America/NHANES data for which a record was used.

Fat change -- A factor applied during the calculation of a food's nutrient values in order to adjust nutrients for the amount of fat gained or lost during cooking. Expressed as a percentage, plus or minus, of the total food weight.

FNDDS -- Abbreviation for the “USDA Food and Nutrient Database for Dietary Studies.”

FNDDS-SR links -- A file which documents the SR codes, along with information applicable to each code, that are used to calculate FNDDS nutrient values. Many FNDDS food codes that represent food mixtures have multiple SR links.

Food change -- A type of change to a value, represented by “F” (for food change) in the change type field. A food change represents a real change to a food. Date fields designate the start and end point for the value. Relevant to the multi-year database.

Food code -- A unique 8-digit code assigned to a FNDDS main food description.

FSRG – Abbreviation for the "Food Surveys Research Group."

Main food description -- Primary description for a food, identified by a unique 8-digit food code.

Moisture change -- A factor applied during the calculation of a food's nutrient values in order to adjust nutrients for the amount of moisture gained or lost during cooking. Expressed as a percentage, plus or minus, of the total food weight.

NDL – Abbreviated for the "Nutrient Data Laboratory."

NFS -- Abbreviation for “not further specified.” Food codes containing NFS in the description are used when a respondent can not provide any details about a food.

NHANES -- Abbreviation for the “National Health and Nutrition Examination Survey.”

NS – Abbreviation for "not specified." Food codes containing NS in the description are used when a respondent can not provide additional details about a food.

Nutrient code -- A unique 5-digit number assigned to a nutrient.

Nutrient description -- The description (nutrient name) associated with a unique nutrient code.

Portion code -- A unique 5-digit number assigned to a portion description.

Portion description -- A description of an amount of food identified by a unique portion code.

Portion weight -- The weight (in grams) of a portion, indicated by a portion code.

QNS -- Abbreviation for the phrase “Quantity Not Specified.” Represents amount coded when respondent can not describe amount consumed. Not present for all foods. Not designed to represent average amounts of foods consumed.

RAE -- Abbreviation for "retinol activity equivalents."

Retention code -- A 4-digit code representing a set of retention factors (expressed as a percentage of nutrients retained). Retention factors are used to calculate the amount of nutrients retained in a food after cooking.

SR -- Abbreviation for “USDA Nutrient Database for Standard Reference.” Developed and maintained by USDA’s Nutrient Data Laboratory.

Start date -- Beginning date when a record was available for processing What We Eat in America/NHANES data. Most FNDDS files include two date fields (Start date and End date) indicating the time period corresponding to the What We Eat in America/NHANES data for which a record was used.

Subcode -- A unique 7-digit code assigned to a subcode description.

Subcode description – A description associated with a specific food code and its main description; shares the same nutrient profile but has its own unique portion descriptions and weights.

U.S. – Abbreviation for the "United States of America."

USDA – Abbreviation for the "U.S. Department of Agriculture."

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