2005-2010 What We Eat In America – Food Commodity Intake Database
(WWEIA-FCID 0510)

The EPA's WWEIA-FCID database is used to calculate estimates of food intake. It is an integral component in the DEEM/Calendex model used by EPA's Office of Pesticide Programs to estimate the dietary exposures to pesticides for the general U.S. population and various demographic subgroups.The WWEIA-FCID is derived from the WWEIA component of the National Health and Nutrition Examination Survey (NHANES). This survey is managedby the National Center for Health Statistics (NCHS) within the U.S. Center for Disease Control(CDC) under a partnership with the U.S. Department of Agriculture (USDA),and is designed to assess the health and nutritional status of adults and children in the United States. The NCHS is responsible for the sample design and data collection and USDA is responsible for the survey's dietary data collection methodology, maintenance of the databases used to code and process the data, and data review and processing.

As stated on the NHANES website, NHANES data are not obtained using a simple random sample. Rather, the NHANES survey uses a complex, multistage, probability sampling design to select participants that are representative of the U.S. Census civilian non-institutionalized population. As such, NHANES uses statistical sampling weights[1]to account for the complex survey design (including oversampling), survey non-response, and post-stratification.In any analysis, it is important that the user take into account the statistical design of the survey (including, where necessary, primary sampling unit (PSU) and strata information) to properly account for the clustered design and appropriately incorporate the probabilities of selection (through sampling weights). Failing to account for the statistical sampling parameters may mean that the estimates obtained are biased and can overstate significance levels.

NCHS has released a total of six survey cycles, released as two year cycles, beginning with 1999-2000. EPA's current WWEIA-FCID is based on three cycles of data from the NHANES-WWEIA survey (2005-06, 2007-08, and 2009-10). Based on these three cycles, EPA has extracted the following information from NHANES/WWEIA survey for use in its WWEIA-FCID database:

- Demographic information (including age, gender, ethnicity, pregnancy status, statistical survey design parameters) from NHANES demographic file
- Body weight, height, BMI from NHANES Body Measures file
- Food consumption data from NHANES Day 1 and Day 2 food diaries
- Direct drinking water intake (tap, bottled) from NHANES Dietary Interview: Total Nutrient Intakes day1 and day2 file.
- Lactating/Nursing status from NHANES reproductive health file

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[1]The sample weight is a measure of the number of people in the population represented by that sampled person.

The WWEIA-FCID 2005-2010 database contains a total of 15 tables to describe this information. These are posted on the Joint Institute for Food Safety and Applied Nutrition (JIFSAN) website (http://fcid.foodrisk.org/dbc/) (in *.csv format) and are available to the public for download.

This document provides an introduction to and listing of the variables and fields available in WWEIA-FCID 2005-2010 and is intended to assist the new data user in understanding the structure and function of the available files. The user is encouraged to read and be familiar with the background, statistical, and survey information provided by both NCHS (including their website tutorials) and the USDA with respect to this data. The document provided here is only intended to provide the user with a brief overview of the selected data available on the JIFSAN WWEIA-FCID website.

The table below provides a summary description of each of the 16 tables, including some notes about use in the DEEM/Calendex model.

Summary of Data Tables in the WWEIA-FCID 2005-2010 Database			
Data Table		Description	Notes/Source
Table Name	JIFSAN Website Filename (*.csv)		
WWEIA 2005-10 Demographic Data	WWEIA_Demo_0510.csv (see Appendix A for codebook and Appendix B for control statistics)	Select demographic data and bodyweight data from WWEIA 2005-10.	Age, gender, race, pregnancy status, bodyweight, height and survey sampling weights
WWEIA 2005-10 Water Consumption Data	DRTOT_0510.csv (see Appendix A for codebook and Appendix B for control statistics)	Direct water consumption data from WWEIA 2005-10 total nutrient file.	Direct drinking water Intake (total, tap, bottled)
WWEIA 2005-10 Food Consumption Data	DRIFF_0510.csv (see Appendix A for codebook and Appendix B for control statistics)	Food consumption data from WWEIA 2005-10 individual food files.	24-hour recall food consumption diaries (including food items, amounts consumed, and time of eating occasions)
WWEIA Food Code Descriptions	Food_Code_Description.csv	Text descriptions of WWEIA food codes	(e.g., 11100000=Milk, NFS)
WWEIA Food Modification Descriptions	Food_Modification_Description.csv	Text descriptions of WWEIA food modification codes	(e.g., 100000=Egg, whole, fried W/ BUTTER, NFS)
FCID Recipe Database	Recipes_WWEIA_FCID.csv (see Appendix A for codebook and Appendix B for control statistics)	U.S. EPA recipe database to translate WWEIA food consumption to consumption of agricultural food commodities (see Appendix B for example)	CSFII-FCID; WWEIA-FNDDS; HED Staff (e.g., Milk=89.12% Milk-water, 8.83% Milk-nonfat solids, 2.05% Milk-fat)
FCID Commodity Code Descriptions	FCID_Code_Description.csv	Text descriptions of U.S. EPA FCID commodity codes	FCID Description of Raw Agricultural Commodities (RAC);
FCID Commodity Vocabulary	Commodity_Vocabulary.csv	Description of the weight basis of the FCID commodities	FCID Description of Raw Agricultural Commodities (RAC), and Weight basis (same as 7); FCID_Code in Text Format
FCID Cooked Status Descriptions	Cooked_Status_Description.csv	Text descriptions of U.S. EPA cooking status codes	FCID (e.g., 1=Uncooked, 2=Cooked)
FCID Food Form Descriptions	Food_Form_Description.csv	Text descriptions of U.S. EPA food form codes	FCID (e.g., 1=Fresh or N/S, 2=Frozen)
FCID Cooking Method Descriptions	Cooking_Method_Description.csv	Text descriptions of U.S. EPA cooking method codes	FCID (e.g., 1=Baked, 2=Boiled)

Summary of Data Tables in the WWEIA-FCID 2005-2010 Database			
Data Table		**Description**	**Notes/Source**
Table Name	**JIFSAN Website Filename (*.csv)**		
Commodity Specific Food Consumption - Detailed	Commodity_CSFFCM_Intake_0510.csv (see Appendix A for codebook and Appendix B for control statistics)	Commodity specific consumption by WWEIA respondent sequence number (SEQN), day code (DAYCODE), food form (FF), cooking method (CM), and cooked status (CS)	Sums total daily amounts consumed for each RAC-Food Form (e.g., Appendix B result from MERGE: DRIFF & Recipes_WWEIA_FCID); for use in DEEM/Calendex model
Commodity Specific Food Consumption	Commodity_Intake_0510.csv	Commodity specific consumption by WWEIA respondent sequence number (SEQN) and day code (DAYCODE)	Sums amounts for each RAC over FF Commodity_CSFFCM_Intake; for use in JIFSAN calculator, Exposure Factors Handbook
Updated FCID Code Lookup	FCID_Code_Update_0510.csv	Lookup table that matches previous U.S. EPA FCID codes with updated U.S. EPA FCID codes in WWEIA 2005-10	Used by DEEM/Calendex model to convert commodity residue files from previous model versions (*.R98 files) to updated versions (*.R08 files)
Crop Group Description	FCID_Cropgroup_Description.csv	Text description of U.S. EPA Crop Groups and Sub-groups	(e.g., 14 = Tree Nuts)
FCID CODEX Lookup	Codex_Lookup.csv	Lookup table that matches U.S. EPA FCID codes for agricultural food commodities with CODEX codes and descriptions	Generate consumption statistics based on CODEX categories

Appendix A of this document provides a codebook for some select tables in this list and Appendix B provides control statistics so users who elect to download the data can ensure that they are working with the correct and complete files. Note that the files provided on the JIFSAN website are in .csv format which can be read by and directly imported into Microsoft (MS) Excel and other statistical and database software (e.g., SAS, Stata). However, a number of the files are extremely large and exceed MS Excel's row capacityand are thus only partially imported[2]. The user should ensure that the complete file is downloaded by comparing summary/control statistics from the files downloaded from the web with those provided in Appendix B of this document.

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[2] When the file exceeds MS Excel's row capacity, a warning is provided.

Appendix A
Codebooks

Table A.1:Codebook for WWEIA 2005-2010 Demographic Data				
(Filename: WWEIA_Demo_0510.csv)				
WWEIA-FCID Field	NHANES-WWEIA Field	Field Description	Survey Cycle	Code[1]
SEQN	SEQN	Respondent ID	2005-2006 2007-2008 2009-2010	--
SDDSRVYR	SDDSRVYR	The two-year NHANES data release cycle number	2005-2006 2007-2008 2009-2010	4 = 2005-2006 5 = 2007-2008 6 = 2009-2010
RIDSTATR	RIDSTATR	Interview/Examination Status	2005-2006 2007-2008 2009-2010	1 = interviewed only 2 = both interviewed and MEC examined
RIDEXMON	RIDEXMON	Exam six month time period	2005-2006 2007-2008 2009-2010	1 = November 1 through April 30 2 = May 1 through October 31
RIAGENDR	RIAGENDR	Gender	2005-2006 2007-2008 2009-2010	1 = Male 2 = Female
RIDAGEYR	RIDAGEYR	Age at the time of the screening interview, in years	2005-2006	-- (If survey participants are 85 years old or older, their age is top-coded as 85.)
			2007-2008 2009-2010	-- (If survey participants are 80 years old or older, their age is coded as 80.)
RIDAGEMN	RIDAGEMN	Age at the time of the household screening interview, in months	2005-2006	-- (Only provided for respondents who are less than 85 years old; "RIDAGEYR<85".)
			2007-2008 2009-2010	-- (Only provided for respondents who are less than 80 years of age; "RIDAGEYR<80".)
RIDEXPRG	RIDEXPRG	Pregnancy Status at Exam	2005-2006 2007-2008 2009-2010	1=Yes, positive lab pregnancy test or self-reported pregnant at exam 2 = SP not pregnant at exam 3 = Cannot ascertain if SP is pregnant at exam

WWEIA-FCID Field	NHANES-WWEIA Field	Field Description	Survey Cycle	Code[1]
Table A.1:Codebook for WWEIA 2005-2010 Demographic Data **(Filename: WWEIA_Demo_0510.csv)**				
RIDAGEEX	RIDAGEEX	Age at the Mobile Examination Center (MEC) examination, in months	2005-2006	-- (Only provided for subjects under 85 years old at the time of household screening; "RIDAGEYR<85".)
			2007-2008 2009-2010	-- (Only provided for subjects under 80 years old at the time of household screening; "RIDAGEYR<80".)
RIDRETH1	RIDRETH1	Race/Ethnicity	2005-2006 2007-2008 2009-2010	1 = Mexican American 2 = Other Hispanic 3 = Non-Hispanic White 4 = Non-Hispanic Black 5 = Other Race - Including Multi-Racial
SDMVPSU	SDMVPSU	Masked Variance Pseudo-PSU	2005-2006 2007-2008 2009-2010	--
SDMVSTRA	SDMVSTRA	Masked Variance Pseudo-Stratum	2005-2006 2007-2008 2009-2010	44 to 58 = 2005-2006 59 to 74 = 2007-2008 75 to 89 = 2009-2010
DMDHHSIZ	DMDHHSIZ	Total number of people in the household	2005-2006 2007-2008 2009-2010	--
YEAR	(Not included)	NHANES-WWEIA Survey Cycle	2005-2006 2007-2008 2009-2010	--
BMXWT	BMXWT	Bodyweight, in kilograms (kg)	2005-2006 2007-2008 2009-2010	--
BMXHT	BMXHT	Standing Height (cm) Target: 2 years -150 years	2005-2006 2007-2008 2009-2010	--
BMXRECUM	BMXRECUM	Recumbent Length (cm) Target: 0 MONTHS - 47 MONTHS	2005-2006 2007-2008 2009-2010	--
BMXBMI	BMXBMI	Body Mass Index (kg/m^2) Target : 2 years-150 years	2005-2006 2007-2008 2009-2010	--
BMXWT_IMPUTE	(Not included)	Contains imputed and non-imputed value for Bodyweight (kg). Missing value of bodyweight BMXWT) is imputed by weighted average of BMXWT value from same sex, age and ethnicity. Non-missing value is the same as the non-missing value of BMXWT.	2005-2006 2007-2008 2009-2010	--
BMXHT_IMPUTE	(Not included)	Contains imputed and non-imputed values for height (cm). CDC does not report standing height for less than 2 years old. Recumbent length was used for less than 2 years old. Missing value of height is imputed by weighted average of height from same sex, age and ethnicity.	2005-2006 2007-2008 2009-2010	--

WWEIA-FCID Field	NHANES-WWEIA Field	Field Description	Survey Cycle	Code[1]
		Table A.1:Codebook for WWEIA 2005-2010 Demographic Data **(Filename: WWEIA_Demo_0510.csv)**		
bmxbmi_impute	(Not included)	Contains imputed and non-imputed value for BMI. Missing value of BMI is imputed by the following equation: = $BMXWT\_IMPUTE/(BMXHT\_IMPUTE/100)^2$; Unit: (kg/m^2)	2005-2006 2007-2008 2009-2010	--
RHQ200	RHQ200	{Are you/Is SP} now breast feeding a child?	2005-2006 2007-2008 2009-2010	1 = Yes 2 = No 7 = Refused 9 = Don't know
WTDRD1	WTDRD1	Dietary day one sample weight	2005-2006 2007-2008 2009-2010	--
WT6_DAY1	(Not included)	Dietary day one sample weight; 6-year weighting from 3 survey cycles, 2005-2010 (= WTDRD1 ÷ 3)		--
WTDR2D	WTDR2D	Dietary two-day sample weight	2005-2006 2007-2008 2009-2010	--
WT6_2DAY	(Not included)	Dietary two-day sample weight; 6-year weighting from 3 survey cycles, 2005-20010 (= WTDR2D ÷ 3)		--

[1] "--"= not applicable, as the values are not codes, they correspond directly to the field description

Imputations:

The following steps were taken to impute bodyweight:
1. Calculate the weighted average of bodyweight by sex, age, and ethnicity using MEC sampling weight after excluding the records of missing values of bodyweight.
2. Link respondents with missing BW values to the weighted-average BW for their corresponding sex, age, and ethnicity.

The following steps were taken to impute height:
1. Replace height of respondents < 2 years old by recumbent length since CDC does not report standing height for < 2 years old.
2. Calculate the weighted average of body height by sex, age, and ethnicity using MEC sampling weight after excluding the records of missing values of body height.
3. Link respondents with missing Body height values to the weighted-average Body height for their corresponding sex, age, and ethnicity.

The following steps were taken to imputeBMI:
1. Imputed BMI = Imputed Bodyweight (Kg)/(Imputed body height(cm)/100)^2

After imputing bodyweight, height, and BMI keep records for those individuals only who participate in dietary component of the NHANES survey.

| | | Table A.2: Codebook for WWEIA 2005-10 Water Consumption Data | | | |
| | | (Filename: DRTOT_0510.csv) | | | |
WWEIA-FCID Field	NHANES-WWEIA Field	Field Description	Survey Cycle	Code[1]
SEQN	SEQN	Respondent ID	2005-2006 2007-2008 2009-2010	--
WTDRD1	WTDRD1	Dietary day one sample weight	2005-2006 2007-2008 2009-2010	--
WTDR2D	WTDR2D	Dietary two-day sample weight	2005-2006 2007-2008 2009-2010	--
WT6_DAY1	(Not included)	Dietary day one sample weight; 6-year weighting from 3 survey cycles, 2005-2010 (= WTDRD1 ÷ 3)		--
WT6_2DAY	(Not included)	Dietary two-day sample weight; 6-year weighting from 3 survey cycles, 2005-2010 (= WTDR2D ÷ 3)		--
DAYCODE	(Not included)	Food diary day	2005-2006 2007-2008 2009-2010	1 = day 1 2 = day 2
DRDRSTZ	DR1DRSTZ DR2DRSTZ	Quality and completeness of a survey participant's response to the dietary recall section	2005-2006 2007-2008 2009-2010	1 = Reliable and met the minimum criteria 2 = Not reliable or did not meet the minimum criteria 4 = Reported consuming breast milk 5 = Not done
DREXMER	DR1EXMER DR2EXMER	Interviewer ID code	2005-2006 2007-2008 2009-2010	--
DRABF	DRABF	Indicates whether the (infant) respondent was breast-fed on either of the two recall days	2005-2006 2007-2008 2009-2010	1 = Yes 2 = No
DRDINT	DRDINT	Number of days that the respondent has intake data in the survey	2005-2006 2007-2008 2009-2010	--
DRDAY	DR1DAY DR2DAY	Intake day of the week	2005-2006 2007-2008 2009-2010	1 = Sunday 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday
DRLANG	DR1LANG DR2LANG	Language respondent used mostly	2005-2006 2007-2008 2009-2010	1 = English 2 = Spanish 3 = English and Spanish 4 = Other

| | | **Table A.2: Codebook for WWEIA 2005-10 Water Consumption Data** | | |
| | | **(Filename: DRTOT_0510.csv)** | | |
WWEIA-FCID Field	**NHANES-WWEIA Field**	**Field Description**	**Survey Cycle**	**Code[1]**
DRMNRSP	DR1MNRSP DR2MNRSP	Main respondent for this interview	2005-2006 2007-2008 2009-2010	1 = Survey Participant (SP) 2 = Mother of SP 3 = Father of SP 4 = Wife of SP 5 = Husband of SP 6 = Daughter of SP 7 = Son of SP 8 = Grandparent of SP 9 = Friend, Partner, Non-Relative 10 = Translator, not a household member 11 = Childcare Provider 12 = Other Relative 13 = No one 14 = Other, specify 77 = Refused 99 = Don't Know
DRHELPD	DR1HELPD DR2HELPD	Helped in responding for this interview	2005-2006 2007-2008 2009-2010	1 = SP 2 = Mother of SP 3 = Father of SP 4 = Wife of SP 5 = Husband of SP 6 = Daughter of SP 7 = Son of SP 8 = Grandparent of SP 9 = Friend, Partner, Non-Relative 10 = Translator, not a household member 12 = Other Relative 13 = No one 14 = Other, specify 77 = Refused 99 = Don't Know
DR_320	DR1_320Z DR2_320Z	Total plain water drank yesterday, in grams	2005-2006 2007-2008 2009-2010	--
DR_330	DR1_330Z DR2_330Z	Total tap water drank yesterday, in grams	2005-2006 2007-2008 2009-2010	--
DRBWATR	DR1BWATZ DR2BWATZ	Total bottled water drank yesterday, in grams	2005-2006 2007-2008 2009-2010	--
DRTWS	DR1TWS DR2TWS	Tap water source	2005-2006 2007-2008 2009-2010	1 = Community supply 2 = Well or rain cistern 3 = Spring 4 = Don't drink tap water 91 = Other 99 = Don't know
YEAR	(Not included)	NHANES-WWEIA Cycle		--

[1] "--"= not applicable, as the values are not codes, they correspond directly to the field description

| | | Table A.3: Codebook for WWEIA 2005-10 Food Consumption Data | | |
| | | (Filename: DRIFF_0510.csv) | | |
WWEIA-FCID Field	NHANES-WWEIA Field	Field Description	Survey Cycle	Code[1]
SEQN	SEQN	Respondent ID	2005-2006 2007-2008 2009-2010	--
DRABF	DRABF	Indicates whether the (infant) respondent was breast-fed on either of the two recall days	2005-2006 2007-2008 2009-2010	1 = Yes 2 = No
DAYCODE	(Not included)	Food diary day	2005-2006 2007-2008 2009-2010	1 = day 1 2 = day 2
DRIFDCD	DR1IFDCD	USDA food code	2005-2006 2007-2008 2009-2010	see: http://fcid.foodrisk.org/dbc/csv2014Q4/Food_Code_Description.csv
DRMC	DR1MC	Modification code	2005-2006 2007-2008 2009-2010	see: http://fcid.foodrisk.org/dbc/csv2014Q4/Food_Modification_Description.csv
DRIGRMS	DR1IGRMS DR2IGRMS	Weight of the food/individual component, in grams	2005-2006 2007-2008 2009-2010	--
DRILINE	DR1ILINE DR2ILINE	Food/Individual component number	2005-2006 2007-2008 2009-2010	--
WTDRD1	WTDRD1	Dietary day one sample weight	2005-2006 2007-2008 2009-2010	--
WTDR2D	WTDRD2	Dietary two-day sample weight	2005-2006 2007-2008 2009-2010	--
WT6_DAY1	(Not included)	Dietary day one sample weight; 6-year weighting from 3 survey cycles, 2005-2010 (= WTDRD1 ÷ 3)		--
WT6_2DAY	(Not included)	Dietary two-day sample weight; 6-year weighting from 3 survey cycles, 2005-2010 (= WTDR2D ÷ 3)		--
DRDRSTZ	DR1DRSTZ; DR2DRSTZ	Quality and completeness of a survey participant's response to the dietary recall section	2005-2006 2007-2008 2009-2010	1 = Reliable and met the minimum criteria 2 = Not reliable or did not meet the minimum criteria 4 = Reported consuming breast milk 5 = Not done
DREXMER	DR1EXMER DR2EXMER	Interviewer ID code	2005-2006 2007-2008 2009-2010	--
DRDINT	DRDINT	Number of days that the respondent has intake data in the survey	2005-2006 2007-2008 2009-2010	--
DRDAY	DR1DAY DR2DAY	Intake day of the week	2005-2006 2007-2008 2009-2010	1 = Sunday 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday
DRLANG	DR1LANG DR2LANG	Language respondent used mostly	2005-2006 2007-2008	1 = English 2 = Spanish

		Table A.3: Codebook for WWEIA 2005-10 Food Consumption Data (Filename: DRIFF_0510.csv)		
WWEIA-FCID Field	**NHANES-WWEIA Field**	**Field Description**	**Survey Cycle**	**Code[1]**
			2009-2010	3 = English and Spanish 4 = Other
DRCCMNM	DR1CCMNM DR2CCMNM	Combination food number (sequential number)	2005-2006 2007-2008 2009-2010	--
DRCCMTX	DR1CCMTX DR2CCMTX	Combination food type	2005-2006 2007-2008 2009-2010	0 = Non-combination food 1 = Beverage w/ additions 2 = Cereal w/ additions 3 = Bread/baked products w/ additions 4 = Salad 5 = Sandwiches 6 = Soup 7 = Frozen meals 8 = Ice cream/frozen yogurt w/ additions 9 = Dried beans and vegetable w/ additions 10 = Fruit w/ additions 11 = Tortilla products 12 = Meat, poultry, fish 13 = Lunchables 14 = Chips w/ additions 90 = Other mixtures
DR_020	DR1_020 DR2_020	Time of eating occasion, in HH:MM ("What time did you begin to eat/drink the meal/food?")	2005-2006 2007-2008 2009-2010	--
DR_030Z	DR1_030Z DR2_030Z	Name of eating occasion	2005-2006 2007-2008 2009-2010	1 = Breakfast 2 = Lunch 3 = Dinner 4 = Supper 5 = Brunch 6 = Snack 7 = Drink 8 = Infant feeding 9 = Extended consumption 10 = Desayano 11 = Almuerzo 12 = Comida 13 = Merienda 14 = Cena 15 = Entre comida 16 = Botana 17 = Bocadillo 18 = Tentempie 19 = Bebida 91 = Other 99 = Don't Know

WWEIA-FCID Field	NHANES-WWEIA Field	Field Description	Survey Cycle	Code[1]
		Table A.3: Codebook for WWEIA 2005-10 Food Consumption Data		
		(Filename: DRIFF_0510.csv)		
DRFS	DR1FS DR2FS	Source of food [Where did you get (this/most of the ingredients for this) {FOODNAME}?]	2005-2006 2007-2008 2009-2010	1 = Store 2 = Restaurant with waiter/waitress 3 = Restaurant fast food/pizza 4 = Bar/tavern/lounge 5 = Restaurant no additional information 6 = Cafeteria not at school 7 = Cafeteria at school 8 = Child care center 9 = Family/adult day care center 10 = Soup kitchen/shelter/food pantry 11 = Meals on Wheels 12 = Community food program – other 13 = Community program no additional information 14 = Vending machine 15 = Common coffee pot or snack tray 16 = From someone else/gift 17 = Mail order purchase 18 = Residential dining facility 19 = Grown or caught by you or someone you know 20 = Fish caught by your or someone you know 24 = Sport, recreation, or entertainment facility 25 = Street vendor, vending truck 26 = Fundraiser sales 91 = Other, specify 99 = Don't Know
DR_040Z	DR1_040Z DR2_040Z	Did you eat this meal at home?	2005-2006 2007-2008 2009-2010	1 = Yes 2 = No 7 = Refused 9 = Don't Know
YEAR	(Not included)	NHANES-WWEIA Cycle	2005-2006 2007-2008 2009-2010	--

[1] "--"= not applicable, as the values are not codes, they correspond directly to the field description

	Table A.4: Codebook for FCID Recipe Database	
	(Recipes_WWEIA_FCID.csv)	
WWEIA-FCID Field	**Field Description**	**Code[1]**
Food_Code	USDA Food Code	see: http://fcid.foodrisk.org/dbc/csv2014Q4/Food_Code_Description.csv
Mod_Code	USDA Food Modification Code	see: http://fcid.foodrisk.org/dbc/csv2014Q4/Food_Modification_Description.csv
FCID_Code	FCID commodity code	see: http://fcid.foodrisk.org/dbc/csv2014Q4/Commodity_Vocabulary.csv
Ingredient_Num	Ingredient order number within a food code. Same ingredient may have different order numbers among different food codes.	--
Cooked_Status	FCID code of cooked status	1 = Uncooked 2 = Cooked 9 = Refined
Food_Form	FCID code of food form	0 = Not Applicable 1 = Fresh or Not Specified (N/S) 2 = Frozen 3 = Dried 4 = Canned 5 = Cured, pickled, smoked, salted
Cooking_Method	FCID code of cooking method	0 = Not specified 1 = Baked 2 = Boiled 3 = Fried 4 = Fried or Baked 5 = Boiled or baked
Commodity_Weight	Percent of Food consisting of Raw Agricultural Commodity Food Form	--
CSFII_9498_IND	Food item consumed in CSFII?	0 = Not consumed in CSFII Survey (1994-96, 1998) 1 = Food Item consumed in CSFII Survey (1994-96, 1998)
WWEIA_9904_IND	Food item consumed in WWEIA 1994-2004?	0 = Not consumed in WWEIA Survey (1994-2004) 1 = Food Item consumed in WWEIA Survey (1994-2004)
WWEIA_0510_IND	Food item consumed in WWEIA 2005-2010?	0 = Not consumed in WWEIA Survey (2005-2010) 1 = Food Item consumed in WWEIA Survey (2005-2010)
[1] "--"= not applicable, as the values are not codes, they correspond directly to the field description		

WWEIA-FCIDField	Description	Code[1]
	Table A.5: Codebook for Commodity Specific Food Consumption - Detailed	
	(Filename: Commodity_CSFFCM_Intake_0510.csv)	
SEQN	Respondent ID	--
DRABF	Indicates whether the (infant) respondent was breast-fed on either of the two recall days.	1 = Yes 2 = No
DAYCODE	Food Diary: Day 1 or Day 2	1 = day 1 2 = day2
FCID_Code	Commodity code	see: http://fcid.foodrisk.org/dbc/csv2014Q4/Commodity_Vocabulary.csv
Cooked_Status	Cooking status	1 = Uncooked 2 = Cooked 9 = Refined
Food_Form	Food form	0 = Not Applicable 1 = Fresh or Not Specified (N/S) 2 = Frozen 3 = Dried 4 = Canned 5 = Cured, pickled, smoked, salted
Cooking_Method	Cooking method	0 = Not specified 1 = Baked 2 = Boiled 3 = Fried 4 = Fried or Baked 5 = Boiled or baked
Intake	Intake, in grams	--
Intake_BW	Intake, in grams per kilogram body weight (g/kg bw)	--
[1] "--"= not applicable, as the values are not codes, they correspond directly to the field description		

Appendix B
Control Statistics

This file contains descriptive/"control" statistics for the variables shown in Tables A.1 through A.5 in Appendix A.The SAS PROC MEANS procedure was used to generate thislisting which includes a count of records with non-missingvalues (N) for each variable in each record type, the unweightedmean of all values, and the minimum, maximum, and sum of eachvariable across all records. The statistics were computed across all records in each file. The SAS program used togenerate this listing is provided at the end of this appendix.

The user should note that these statistics are <u>not</u> population estimates. They are unweighted, were computed using all values of each variable, and, as such, they are simplya point of comparison for the user to be able to check that any downloaded files are complete and correct.

Table B.1:Control Statistics for WWEIA 2005-10 Demographic Data

Filename: WWEIA_Demo_0510.csv

Variable	Label	N	Mean	Minimum	Maximum	Sum
SEQN	Respondent sequence number	28358	46727.4	31127.0	62160.0	1325095488.0
SDDSRVYR	Data Release Number	28358	5.0	4.0	6.0	142195.0
RIDSTATR	Interview/Examination Status	28358	2.0	2.0	2.0	56716.0
RIDEXMON	Six month time period	28358	1.5	1.0	2.0	43236.0
RIAGENDR	Gender	28358	1.5	1.0	2.0	42636.0
RIDAGEYR	Age at Screening Adjudicated - Recode	28358	31.2	0.0	85.0	884104.0
RIDAGEMN	Age in Months - Recode	27508	361.2	0.0	1019.0	9935615.0
RIDEXPRG	Pregnancy Status at Exam - Recode	5522	1.9	1.0	3.0	10696.0
RIDAGEEX	Exam Age in Months - Recode	27480	361.9	0.0	1019.0	9944293.0
RIDRETH1	Race/Ethnicity - Recode	28358	2.8	1.0	5.0	78335.0
SDMVPSU	Masked Variance Pseudo-PSU	28358	1.5	1.0	3.0	43172.0
SDMVSTRA	Masked Variance Pseudo-Stratum	28358	66.1	44.0	89.0	1874962.0
DMDHHSIZ	Total number of people in the Household	28358	3.8	1.0	7.0	107949.0
BMXWT	Weight (kg)	28114	62.1	2.6	371.0	1746212.8
BMXHT	Standing Height (cm)	25837	156.4	79.1	204.1	4041201.2
BMXRECUM	Recumbent Length (cm)	3569	81.1	45.0	116.6	289498.9
BMXBMI	Body Mass Index (kg/m**2)	25808	25.6	11.7	130.2	661750.5
BMXWT_IMPUTE	Imputed Body weight in Kg	28358	62.2	2.6	371.0	1762833.7
BMXHT_IMPUTE	Imputed Height in cm	28358	149.7	45.0	204.1	4246046.3
bmxbmi_impute	Imputed BMI Kg/m^2	28358	25.0	8.7	130.2	708154.9
RHQ200	Now breastfeeding a child?	489	1.8	1.0	2.0	867.0
WTDRD1	Dietary day one sample weight	28358	31409.0	587.8	338460.2	890696706.7
WT6_DAY1	6 year dietary one day sample weight	28358	10469.7	195.9	112820.1	296898902.2
WTDR2D	Dietary two-day sample weight	24673	36100.1	790.5	419692.0	890696706.7
WT6_2DAY	6 year dietary two day sample weight	24673	12033.4	263.5	139897.3	296898902.2

YEAR	Frequency
2005-2006	9349
2007-2008	9255
2009-2010	9754

Table B.2: Control Statistics for WWEIA 2005-10 Water Consumption Data
Filename: DRTOT_0510.csv

Variable	Label	N	Mean	Minimum	Maximum	Sum
SEQN	Respondent sequence number	59930	46683.6	31127.0	62160.0	2797746068.0
WTDRD1	Dietary day one sample weight	56716	31409.0	587.8	338460.2	1781393413.3
WTDR2D	Dietary two-day sample weight	49346	36100.1	790.5	419692.0	1781393413.3
WT6_DAY1		56716	10469.7	195.9	112820.1	593797804.4
WT6_2DAY		49346	12033.4	263.5	139897.3	593797804.4
DAYCODE		59930	1.5	1.0	2.0	89895.0
DRDRSTZ	Dietary recall status	59930	1.5	1.0	5.0	88405.0
DREXMER	Interviewer ID code	53592	41.4	10.0	97.0	2218424.0
DRABF	Breast-fed infant (either day)	56716	2.0	1.0	2.0	112518.0
DRDINT	Number of days of intake	56716	1.9	1.0	2.0	106062.0
DRDAY	Intake day of the week	53592	3.9	1.0	7.0	207201.0
DRLANG	Language respondent used mostly	53964	1.2	1.0	4.0	62928.0
DRMNRSP	Main respondent for this interview	52998	1.4	1.0	99.0	74119.0
DRHELPD	Helped in responding for this interview	52950	11.6	1.0	99.0	615359.0
DR_320	Total plain water drank yesterday (gm)	53031	690.6	0.0	16116.0	36622130.4
DR_330	Total tap water drank yesterday (gm)	53031	386.5	0.0	16116.0	20495206.3
DRBWATR	Total bottled water drank yesterday (gm)	53031	304.1	0.0	11376.0	16126924.1
DRTWS	Tap water source	53590	6.0	1.0	99.0	320161.0

YEAR	Frequency
2005-2006	19900
2007-2008	19524
2009-2010	20506

Table B.3: Control Statistics for WWEIA 2005-10 Food Consumption Data

Filename: DRIFF_0510.csv file

Variable	Label	N	Mean	Minimum	Maximum	Sum
SEQN	Respondent sequence number	826267	46584.5	31127.0	62160.0	38491242551
WTDRD1	Dietary day one sample weight	826267	33294.9	587.8	338460.2	27510444393
WTDR2D	Dietary two-day sample weight	771154	37894.9	790.5	419692.0	29222802452
WT6_DAY1		826267	11098.3	195.9	112820.1	9170148131.2
WT6_2DAY		771154	12631.6	263.5	139897.3	9740934150.7
DRILINE	Food/Individual component number	826267	9.5	1.0	62.0	7819513.0
DAYCODE		826267	1.5	1.0	2.0	1208900.0
DRDRSTZ	Dietary recall status	826267	1.0	1.0	4.0	858487.0
DREXMER	Interviewer ID code	826267	41.3	10.0	97.0	34125707.0
DRABF	Breast-fed infant (either day)	826267	2.0	1.0	2.0	1641448.0
DRDINT	Number of days of intake	826267	1.9	1.0	2.0	1597421.0
DRDAY	Intake day of the week	826267	3.9	1.0	7.0	3185808.0
DRLANG	Language respondent used mostly	826267	1.2	1.0	4.0	959223.0
DRCCMNM	Combination food number	826267	1.1	0.0	16.0	887440.0
DRCCMTX	Combination food type	826267	4.3	0.0	90.0	3572829.0
DR_020	Time of eating occasion (HH:MM)	826267	51152.0	0.0	86340.0	42265210080
DR_030Z	Name of eating occasion	826267	4.6	1.0	91.0	3801536.0
DRFS	Source of food	776594	2.6	1.0	99.0	2049327.0
DR_040Z	Did you eat this meal at home?	820895	1.3	1.0	9.0	1065346.0
DRIFDCD	USDA food code	826267	59373974.8	11000000.0	94300100.0	4.9058756E13
DRMC	Modification code	826267	4716.0	0.0	207526.0	3896650898.0
DRIGRMS	Grams	821494	169.9	0.0	9840.0	139531355.1

YEAR	Frequency
2005-2006	279091
2007-2008	267044
2009-2010	280132

Table B.4: Control Statistics for FCID Recipe Database

Filename: Recipes_WWEIA_FCID.csv file

Variable	Label	N	Mean	Minimum	Maximum	Sum
Food_Code	Food_Code	129863	47134965.1	11000000.0	94300100.0	6.121088E12
Mod_Code	Mod_Code	129863	72397.0	0.0	207526.0	9401691787.0
Ingredient_Num	Ingredient_Num	129863	9.0	1.0	55.0	1168539.0
FCID_Code	FCID_Code	129823	2778479440.7	101050000.0	9500397000.0	3.6071054E14
Cooked_Status	Cooked_Status	129823	4.0	1.0	9.0	525677.0
Food_Form	Food_Form	129823	1.2	0.0	5.0	155975.0
Cooking_Method	Cooking_Method	129823	0.7	0.0	5.0	95719.0
Commodity_Weight		129823	8.7	0.0	354.2	1125692.8
CSFII_9498_IND		129773	0.8	0.0	1.0	101521.0
WWEIA_9904_IND		129773	0.5	0.0	1.0	65686.0
WWEIA_0510_IND		129773	0.6	0.0	1.0	79200.0

Table B.5: Control Statistics for Commodity Specific Food Consumption - Detailed
Filename: Commodity_CSFFCM_Intake_0510.csv file

Variable	Label	N	Mean	Minimum	Maximum	Sum
SEQN	Respondent sequence number	3499503	46645.9	31127.0	62160.0	163237307217
DAYCODE		3499503	1.5	1.0	2.0	5087475.0
DRABF	Breast-fed infant (either day)	3499503	2.0	1.0	2.0	6979007.0
FCID_Code	FCID_Code	3499503	2872373735.7	101050000.0	9500397000.0	1.0051608E16
Cooked_Status	Cooked_Status	3499503	2.8	1.0	9.0	9752092.0
Food_Form	Food_Form	3499503	1.6	0.0	5.0	5475424.0
Cooking_Method	Cooking_Method	3499503	0.7	0.0	5.0	2335215.0
Intake		3499503	32.6	0.0	16116.0	113988205.3
Intake_BW		3499503	0.7	0.0	380.5	2489172.7

SAS Code for Control Statistics

```sas
%let path = F:\Dietary_NHANES;

*===> reading data into SAS;

Procimportdatafile = "&path\WWEIA_Demo_0510.csv" replace
       out = WWEIA_Demo_0510;
       getnames = yes;
run;

Procimportdatafile = "&path\DRTOT_0510.csv" replace
       out = DRTOT_0510;
       getnames = yes;
run;

Procimportdatafile = "&path\DRIFF_0510.csv" replace
       out = DRIFF_0510;
       getnames = yes;
run;


data WWEIA_Demo_0510;
set  WWEIA_Demo_0510;
RHQ200_R = input (RHQ200,1.);
drop RHQ200;
run;

data WWEIA_Demo_0510;
set WWEIA_Demo_0510 (rename = ( RHQ200_R = RHQ200));
run;



odsrtffile = "Control_Statistics for data in WWEIA_Demo_0510.rtf";

*===> create control statistics;

Procmeansdata = WWEIA_Demo_0510 NMeanMinMaxsummaxdec=1;
       title"Control Statistics for data in WWEIA_Demo_0510.csv file";
run;title;
Procfreqdata = WWEIA_Demo_0510; table YEAR/nopercentnocumnorow; run;

odsrtfclose ;

odsrtffile = "Control_Statistics for water consumption data.rtf";

Procmeansdata = DRTOT_0510 NMeanMinMaxsummaxdec=1;
       title"Control Statistics for data in DRTOT_0510.csv file";
run;title;
Procfreqdata = DRTOT_0510; table YEAR/nopercentnocumnorow; run;

odsrtfclose ;
odsrtffile = "Control_Statistics for food consumption data.rtf";
Procmeansdata = DRIFF_0510 NMeanMinMaxsummaxdec=1;
       title"Control Statistics for data in DRIFF_0510.csv file";
run;title;
Procfreqdata = DRIFF_0510; table YEAR/nopercentnocumnorow; run;

odsrtfclose ;


        *===> These statements need to be changed to reflect new FCID;


        Procmeansdata = Recipes_WWEIA_FCID NMeanMinMaxsummaxdec=1;
                title"Control Statistics for data in Recipes_WWEIA_FCID.csv file";
```

```
run;title;

Procmeansdata = Commodity_CSFFCM_Intake_0510NMeanMinMaxsummaxdec=1;
       title"Control Statistics for data in Commodity_CSFFCM_Intake_0510.csv file";
run;
```