FoodData Central Download Field Descriptions

Download Field Descriptions	Download Descriptions (contains 1 line for each file and field)
Abbreviations	List of abbreviations used in the Field Descriptions tab (for example in the synonyms column)
Conventions	Naming conventions used for naming files and fields (and their rationale)
MS Access queries	List of sample MS Access queries provided in downloadable MS Access database
FNDDS crosswalks	Documentation on what FDC fields the FNDDS data were imported into

Download Field Descriptions

Table / File	Field	Definition of data element	Synonyms (used on user interface only)
	GLOBAL column definitions	**These fields appear in multiple files, and their definition is typically the same unless noted below**	
	fdc_id	Unique permanent identifier of a food in the food table	
	id	Unique permanent identifier of other kinds of data (e.g. nutrients, lab methods, etc.) in their related table	
agricultural_acquisition		**Non-processed foods obtained directly from the location where they are produced**	
	fdc_id	ID of the food in the food table	FDC Source ID
	acquisition_date	The date this food was obtained	
	market_class	The name of the specific kind of this food (eg. "Pinto" for pinto beans)	
	treatment	Any special condition relevant to the production of this food - typically "drought" or "control"	
	state	The state in which this food was produced	
acquisition_sample		**Acquisitions may be blended with other acquisitions to create a sample food, and an acquisition can be used to created more than one sample food. This file stores which acquisitions and sample foods are related to each other.**	
	fdc_id_of_sample_food	ID of the sample food that uses the acquisitioned food	
	fdc_id_of_acquisition_food	ID of the acquisitioned food used in the sample food	

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Table / File	Field	Definition of data element	Synonyms (used on user interface only)
branded_food		**Foods whose nutrient values are typically obtained from food label data provided by food brand owners.**	
	fdc_id	ID of the food in the food table	
	brand_owner	Brand owner for the food	
	gtin_upc	GTIN or UPC code identifying the food. Duplicate codes signify an update to the product, use the publication_date found in the food table to distinguish when each update was published, e.g. the latest publication date will be the most recent update of the product.	GTIN/UPC
	ingredients	The list of ingredients (as it appears on the product label)	
	serving_size	The amount of the serving size when expressed as gram or ml	
	serving_size_unit	The unit used to express the serving size (gram or ml)	
	household_serving_fulltext	amount and unit of serving size when expressed in household units	
	branded_food_category	The category of the branded food, assigned by GDSN or Label Insight	
	data_source	The source of the data for this food. GDSN (for GS1) or LI (for Label Insight).	
	modified_date	This date reflects when the product data was last modified by the data provider, i.e., the manufacturer	
	available_date	This is the date when the product record was available for inclusion in the database.	
	discontinued_date	This is the date when the product was discontinued.	
	market_country	The primary country where the product is marketed.	
food		**Any substance consumed by humans for nutrition, taste and/or aroma**	
	fdc_id	Unique permanent identifier of the food	FDC Source ID (used for acquisition foods)
	foodClass	For internal use only	
	data_type	Type of food data (see Files tab for possible values).	
	description	Description of the food	
	food_category_id	Id of the food category the food belongs to	
	publication_date	Date when the food was published to FoodData Central	Published, Published Date, FDC Published
	scientific_name	The scientific name for the food	
	food_key	A string of characters used to identify both the current and all historical records for a specific food.	

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Table / File	Field	Definition of data element	Synonyms (used on user interface only)
food_attribute		**The value for a generic property of a food**	**More Information (tab), Update Log (tab)**
	id		
	fdc_id	ID of the food this food attribute pertains to	
	seq_num	The order the attribute will be displayed on the released food.	
	food_attribute_type_id	ID of the type of food attribute to which this value is associated for a specific food	
	name	Name of food attribute	Changes (on Update Log)
	value	The actual value of the attribute	
food_attribute_type		**The list of supported attributes associated with a food**	
	id		
	name	Name of the attribute associated with the food - should be displayable to users	
	description	Description of the attribute	
food_calorie_conversion_factor		**The multiplication factors to be used when calculating energy from macronutrients for a specific food**	
	food_nutrient_conversion_factor_id	ID of the related row in the nutrient_conversion_factor table	
	protein_value	The multiplication factor for protein	
	fat_value	The multiplication factor for fat	
	carbohydrate_value	The multiplication factor for carbohydrates	
food_category		**Foods of defined similarity**	
	id		
	code	Food group code	
	description	Description of the food group	

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Table / File	Field	Definition of data element	Synonyms (used on user interface only)
food_component		**A constituent part of a food (e.g. bone is a component of meat)**	
	id		
	fdc_id	ID of the food this food component pertains to	
	name	The kind of component, e.g. bone	
	pct_weight	The weight of the component as a percentage of the total weight of the food	Weight (%)
	is_refuse	Whether the component is refuse, i.e. not edible	Refuse
	gram_weight	The weight of the component in grams	Weight (g)
	data_points	The number of observations on which the measure is based	n
	min_year_acquired	Minimum purchase year of all acquisitions used to derive the component value	Year Acquired
food_fat_conversion_factor		**Factor to calculate total lipid fat (204)**	
	food_nutrient_conversion_factor_id	Id of the related row in the nutrient_conversion_factor table	
	fat_nlea_value	The multiplication factor to convert from fat NLEA (298) to total fat (204)	
food_nutrient		**A nutrient value for a food**	
	id		
	fdc_id	ID of the food this food nutrient pertains to	
	nutrient_id	ID of the nutrient to which the food nutrient pertains	
	amount	Amount of the nutrient per 100g of food. Specified in unit defined in the nutrient table.	Average Amount
	data_points	Number of observations on which the value is based	n
	derivation_id	ID of the food nutrient derivation technique used to derive the value	
	standard_error	Standard error	
	min	The minimum amount	
	max	The maximum amount	
	median	The median amount	
	footnote	Comments on any unusual aspects of the food nutrient. Examples might include why a nutrient value is different than typically expected.	
	min_year_acquired	Minimum purchase year of all acquisitions used to derive the nutrient value	Year Acquired, Initial Year Acquired

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Table / File	Field	Definition of data element	Synonyms (used on user interface only)
food_nutrient_conversion_factor		**Top level type for all types of nutrient conversion factors. A separate row is stored for each of these 3 types of conversion factor.**	
	id		
	fdc_id	ID of the food that this food nutrient conversion factor pertains to	
food_nutrient_derivation		**Procedure indicating how a food nutrient value was obtained**	
	id		
	code	Code used for the derivation (e.g. A means analytical)	
	description	Description of the derivation	Deriv. By
	source_id	ID of the nutrient source associated with the derivation	
food_nutrient_source		**An information source from which we can obtain food nutrient values**	
	id		
	code	Code used for the source (e.g. 4 means calculated or imputed)	
	description	Description of the source	

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Table / File	Field	Definition of data element	Synonyms (used on user interface only)
food_portion		**Discrete amount of food**	**Measures (for foundation or legacy foods), Portions (for survey foods)**
	id		
	fdc_id	ID of the food this food portion pertains to	
	seq_num	The order the measure will be displayed on the released food.	
	amount	The number of measure units that comprise the measure (e.g. if measure is 3 tsp, the amount is 3). Not defined for survey (FNDDS) foods (amount is instead embedded in portion description).	
	measure_unit_id	The unit used for the measure (e.g. if measure is 3 tsp, the unit is tsp). For food types that do not use measure SR legacy foods and survey (FNDDS) foods), a value of '9999' is assigned to this field.	Unit
	portion_description	Foundation foods: Comments that provide more specificity on the measure. For example, for a pizza measure the dissemination text might be 1 slice is 1/8th of a 14 inch pizza"." Survey (FNDDS) foods: The household description of the portion.	Measure Description
	modifier	Foundation foods: Qualifier of the measure (e.g. related to food shape or form) (e.g. melted, crushed, diced). Survey (FNDDS) foods: The portion code. SR legacy foods: description of measures, including the unit of measure and the measure modifier (e.g. waffle round (4" dia)).	
	gram_weight	The weight of the measure in grams	Weight (g)
	data_points	The number of observations on which the measure is based	n
	footnote	Comments on any unusual aspects of the measure. These are released to the public. Examples might include caveats on the usage of a measure, or reasons why a measure gram weight is an unexpected value.	
	min_year_acquired	Minimum purchase year of all acquisitions used to derive the measure value	Year Acquired
food_protein_conversion_factor			
	food_nutrient_conversion_factor_id	Id of the related row in the nutrient_conversion_factor table	
	value	The multiplication factor used to calculate protein from nitrogen	
food_update_log_entry		**Historical record of an update of food data**	
	fdc_id	ID of the food in the food table	
	description	Description of the food	
	publication_date	Date when the food was published to FoodData Central	Published, Published Date

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Table / File	Field	Definition of data element	Synonyms (used on user interface only)
foundation_food		**Foods whose nutrient and food component values are derived primarily by chemical analysis. Foundation data also include extensive underlying metadata, such as the number of samples, the location and dates on which samples were obtained, analytical approaches used, and if appropriate, cultivar, genotype, and production practices.**	
	fdc_id	ID of the food in the food table	
	NDB_number	Unique number assigned for the food, different from fdc_id, assigned in SR	
	footnote	Comments on any unusual aspects. These are released to the public. Examples might include unusual aspects of the food overall.	
input_food		**A food that is an ingredient (for survey (FNDDS) foods) or a source food (for foundation foods or their source foods) to another food.**	**Sources (for foundation foods), Ingredients (for survey foods)**
	id		
	fdc_id	fdc_id of the food that contains the input food	
	fdc_id_of_input_food	fdc_id of the food that is the input food	
	seq_num	The order in which to display the input food	
	amount	The amount of the input food included within this food given in terms of unit	
	sr_code	The SR (aka NDB) code of the SR food that is the ingredient food (used for Survey (FNDDS) foods only)	Ingredient Code
	sr_description	The description of the SR food that is the ingredient food (used for Survey (FNDDS) foods only)	Ingredient Description
	unit	The unit of measure for the amount of the input food that is included within this food (used for Survey (FNDDS) foods only)	Measure
	portion_code	Code that identifies the portion description used to measure the amount of the ingredient (used for Survey (FNDDS) foods only)	
	portion_description	The description of the portion used to measure the amount of the ingredient (used for Survey (FNDDS) foods only)	Portion
	gram_weight	The weight in grams of the input food	Ingredient Weight (g)
	retention_code	A numeric code identifying processing on the input food that may have impacted food nutrient content (used for Survey (FNDDS) foods only)	
	survey_flag	2 = SR description does not match SR code, other values = internal processing codes for FSRG use only	Flag

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Table / File	Field	Definition of data element	Synonyms (used on user interface only)
lab_method		**A chemical procedure used to measure the amount of one or more nutrients in a food**	
	id		
	description	Description of the lab method	
	technique	General chemical analysis approach used by the lab method	
lab_method_code		**A short, sometimes lab-specific, sequence of characters used to identify a lab method**	
	id		
	lab_method_id	ID of the lab method the code refers to	
	code	Value of the method code	
lab_method_nutrient		**A nutrient whose amount can be measured by a lab method**	
	id		
	lab_method_id	ID of the lab method the nutrient is measured by	
	nutrient_id	ID of the nutrient that can be measured by the lab method	
market_acquisition		**A food obtained for chemical analysis.**	
	fdc_id	ID of the food in the food table	FDC Source ID
	brand_description	Brand name description of the food	
	expiration_date	Date the food will expire	
	label_weight	The weight of the food per the product label	
	location	The region in which the food was purchased, e.g. CA1	
	acquisition_date	Date the food was purchased	
	sales_type	The type of establishment in which the food was acquired (e.g. Retail Store, restaurant, farm, etc.)	
	sample_lot_nbr	The lot number of the food	Sample Lot Number
	sell_by_date	Date the food should be sold by	
	store_city	The city where the food was acquired	
	store_name	The name of the store the food is purchased from	
	store_state	The state where the food was acquired	
	upc_code	UPC code for the food. Only applicable for retail products.	

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Table / File	Field	Definition of data element	Synonyms (used on user interface only)
measure_unit		**units for measuring quantities of foods**	
	id		
	name	name of the unit	
	abbreviation	abbreviated name of the unit	
nutrient		**The chemical constituent of a food (e.g. calcium, vitamin E) officially recognized as essential to human health**	
	id		
	name	Name of the nutrient	
	unit_name	The standard unit of measure for the nutrient (per 100g of food)	Unit
	nutrient_nbr	A unique code identifying a nutrient or food constituent	
nutrient_analysis_details		**Info for the nutrient source info shown on the nutrient source popdown window. API only.**	
	sub_sample_id	FDC ID d of the analyzed food	
	amount	Amount of the nutrient	
	lab_method_description	Lab method used to analyze the nutrient	
	lab_method_technique	The overall technique used by the lab method	
	lab_method_link	Link to more info about the lab method	
	nutrient_acquisition_details	FDC ID, purchase date, and purchase state	
nutrient_incoming_name		**A nutrient name used to identify a nutrient in incoming nutrient data**	
	id		
	name	The name used for the incoming nutrient (e.g. if nutrient is Protein, name might be Prot)	
	nutrient_id	The id of the nutrient (in the nutrient file) related to the incoming name. Optional (see is_ignored for more info).	
retention_factor		**definitions are available from: www.ars.usda.gov/SP2UserFiles/Place/12354500/Data/retn/retn06.pdf.**	

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sample_food		**A food that is acquired as a representative sample of the food supply. It may be created from a single acquired food, or from a composite of multiple acquired foods.**	
	fdc_id	ID of the food in the food table	
sr_legacy_food		**Foods from the April 2018 release of the USDA National Nutrient Database for Standard Reference. Nutrient and food component values are derived from chemical analysis and calculation.**	
	fdc_id	ID of the food in the food table	
	NDB_number	Unique number assigned for final food, starts from the minimum number of 100,000	
sub_sample_food		**A portion of a sample food used for the purpose of specific chemical analysis.**	
	fdc_id	ID of the food in the food table	
	fdc_id_of_sample_food	ID of the sample food from which the sub sample originated	
sub_sample_result		**The result of chemical analysis of a lab on a particular sub sample for a particular nutrient**	
	food_nutrient_id	Unique ID for row, same as the food_nutrient ID	
	adjusted_amount	Amount after adjusting for unit	
	lab_method_id	ID of the lab method used to measure the nutrient	
	nutrient_name	The name of the nutrient as supplied by the lab	

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survey_fndds_food		**Foods whose consumption is measured by the What We Eat In America dietary survey component of the National Health and Nutrition Examination Survey (NHANES). Survey nutrient values are usually calculated from Branded and SR Legacy data.**	
	fdc_id	ID of the food in the food table	
	food_code	A unique ID identifying the food within FNDDS	
	wweia_category_number	Unique Identification number for WWEIA food category to which this food is assigned	Food Category
	start_date	Start date indicates time period corresponding to WWEIA data	
	end_date	End date indicates time period corresponding to WWEIA data	
wweia_food_category		**Food categories for fndds**	
	wweia_food_category_code	Unique identification code	
	wweia_food_category_description	Description for a WWEIA Category	

Abbreviation	Meaning
Abbreviations used in data element names	
id	unique identification number
max	minimum
min	minimum
Abbreviations used for API fields	
N/A	Field is not included as it is a reference to a parent element

Convention	Rationale
Lower case	Not all combinations of DBMS/OS are case sensitive. See https://stackoverflow.com/questions/16288586/any-reason-to-still-use-snake-case-for-database-tables-and-columns?rq=1
Words separated by underscores	Spaces are slightly more readable in some contexts, but much less readable in others (e.g. in SQL queries), camel case requires case sensitivity

Data type naming conventions

Boolean fields are valued as Y/N

Food relationship definitions

Relationship type	Example definition
property of a food	ID of the food this food attribute pertains to
subtype of a food	ID of the food in the food table
uses a food	ID of the sample food that uses the acquisitioned food

Query Name	What it retrieves
q_fndds_<FnddsTableName>	FNDDS data in the format origininally used to distribute FNDDS 2013-2014
q_foundation_agricultural_acquisition_sources	Source agricultural acquisitions of foundation foods
q_foundation_agricultural_acquisition_nutrients	Source agricultural acquisition nutrients of foundation foods
q_foundation_market_acquisition_sources	Source market acquisitions of foundation foods
q_foundation_market_acquisition_nutrients	Source market acquisition nutrients of foundation foods
q_foundation_market_acquisition_portions	Source market acquisition portions of foundation foods
q_foundation_market_acquisition_components	Source market acquisition components of foundation foods

FNDDS -> FDC Crosswalk **Data was imported from FNDDS 2017-2018 MS Access database to FDC Access database and CSV files**

Main goal is to document where imported survey (FNDDS) data is stored in FDC

FNDDS Table Name	FNDDS Column Name		FDC Table Name*	FDC Column Name*	FDC Location on Website	Migration Notes
AddFoodDesc	Food code		food_attribute	fdc_id	Food Details -> FDC ID	Used to link to survey_fndds_food . food_code
AddFoodDesc	Seq num		food_attribute	seq_num	Attributes -> Seq num	
AddFoodDesc	Start date		survey_fndds_food	start_date	Food Details -> Start date	
AddFoodDesc	End date		survey_fndds_food	end_date	Food Details -> End date	
AddFoodDesc	Additional food description		food_attribute	value	Attributes -> Additional Description	
DerivDesc	Derivation code		fndds_derivation	Derivation code		
DerivDesc	Derivation description		fndds_derivation	Derivation description		
FNDDSNutVal	Food code		food_nutrient	fdc_id	Food Details -> FDC ID	Used to link to survey_fndds_food . food_code
FNDDSNutVal	Nutrient code		food_nutrient	nutrient_id		Based on nutrient.nutrient_nbr = 'Nutrient code'
FNDDSNutVal	Start date		survey_fndds_food	start_date		
FNDDSNutVal	End date		survey_fndds_food	end_date	Food Details -> End date	
FNDDSNutVal	Nutrient value		food_nutrient	amount	Nutrients - > Amount	
FNDDSRecCount	Full File Name					
FNDDSRecCount	no_of_records					
FNDDSIngred	Food code		input_food	fdc_id	Food Details -> FDC ID	Used to link to survey_fndds_food . food_code
FNDDSIngred	Start date		survey_fndds_food	start_date	Food Details -> Start date	
FNDDSIngred	End date		survey_fndds_food	end_date	Food Details -> End date	
FNDDSIngred	Seq num		input_food	seq_num	Ingredients -> Seq Num	
FNDDSIngred	Ingredient code		input_food	sr_code	Ingredients -> Ingredient Code	
FNDDSIngred	Ingredient description		input_food	sr_description	Ingredients -> Ingredient Description	
FNDDSIngred	Amount		input_food	amount	Ingredients -> Amount	
FNDDSIngred	Measure		input_food	unit	Ingredients -> Measure	
FNDDSIngred	Portion code		input_food	portion_code	Portions -> Portion Code	
FoodPortionDesc	Portion description		input_food	portion_description	Portions -> Portion Description	
FNDDSIngred	Retention code		input_food	retention_code	Ingredients -> Retention Code	
FNDDSIngred	Ingredient weight		input_food	gram_weight	Ingredients -> Ingredient Weight(g)	
FoodPortionDesc	Portion code		food_portion	modifier		
FoodPortionDesc	Start date		survey_fndds_food	start_date	Food Details -> Start date	
FoodPortionDesc	End date		survey_fndds_food	end_date	Food Details -> End date	
FoodPortionDesc	Portion description		food_portion	portion_description	Ingredients -> Portion	
FoodSubcodeLinks	Food code		survey_fndds_food	food_code	Food Details -> Food Code	
FoodSubcodeLinks	Subcode					Used to link to FoodWeights (We only import subcodes into
FoodSubcodeLinks	Start date		survey_fndds_food	start_date	Food Details -> Start date	
FoodSubcodeLinks	End date		survey_fndds_food	end_date	Food Details -> End date	
FoodWeights	Food code		food_portion	fdc_id	Food Details -> FDC ID	Used to link to survey_fndds_food . food_code
FoodWeights	Subcode					See FoodSubcodeLinks . Subcode explanation
FoodWeights	Seq num		food_portion	seq_num	Portions -> Seq num	
FoodWeights	Portion code		food_portion	modifier	Portions -> Portion code	
FoodWeights	Start date		survey_fndds_food	start_date	Food Details -> Start date	
FoodWeights	End date		survey_fndds_food	end_date	Food Details -> End date	
FoodWeights	Portion weight		food_portion	gram_weight	Portions -> Weight (g)	
IngredNutVal	Ingredient code		fndds_ingredient_nutrient_value	Ingredient code		
IngredNutVal	Ingredient description		fndds_ingredient_nutrient_value	Ingredient description		
IngredNutVal	Nutrient code		fndds_ingredient_nutrient_value	Nutrient code		
IngredNutVal	Nutrient value		fndds_ingredient_nutrient_value	Nutrient value		
IngredNutVal	Nutrient value source		fndds_ingredient_nutrient_value	Nutrient value source		
IngredNutVal	FDC ID		fndds_ingredient_nutrient_value	FDC ID		
IngredNutVal	Derivation code		fndds_ingredient_nutrient_value	Derivation code		
IngredNutVal	SR AddMod year		fndds_ingredient_nutrient_value	SR AddMod year		

FNDDS -> FDC Crosswalk **Data was imported from FNDDS 2017-2018 MS Access database to FDC Access database and CSV files**

Main goal is to document where imported survey (FNDDS) data is stored in FDC

FNDDS Table Name	FNDDS Column Name		FDC Table Name*	FDC Column Name*	FDC Location on Website	Migration Notes
IngredNutVal	Foundation year acquired		fndds_ingredient_nutrient_value	Foundation year acquired		
IngredNutVal	Start date		fndds_ingredient_nutrient_value	Start date		
IngredNutVal	End date		fndds_ingredient_nutrient_value	End date		
MainFoodDesc	Food code		survey_fndds_food	food_code	Food Details -> Food Code	
MainFoodDesc	Start date		survey_fndds_food	start_date	Food Details -> Start date	
MainFoodDesc	End date		survey_fndds_food	end_date	Food Details -> End date	
MainFoodDesc	Main food description		food	description	Food Details -> Description	
MainFoodDesc	WWEIA Category number		food_attribute	value	Other Information	Populates wweia_food_category.wweia_category_number
MainFoodDesc	WWEIA Category description		food_attribute	value	Other Information	Populates wweia_food_category.wweia_category_description
MoistAdjust	Food code		food_attribute	fdc_id	Food Details -> FDC ID	Used to link to survey_fndds_food . food_code
MoistAdjust	Start date		survey_fndds_food	start_date	Food Details -> Start date	
MoistAdjust	End date		survey_fndds_food	end_date	Food Details -> End date	
MoistAdjust	Moisture change		food_attribute	value	Attributes -> Adjustments	Example, "Moisture change: -20.0%"
NutDesc	Nutrient code		nutrient	nutrient_nbr		
NutDesc	Nutrient description		nutrient	name		
NutDesc	Tagname					
NutDesc	Unit		nutrient	unit_name		
NutDesc	Decimals					
SubcodeDesc	Subcode					Did not import subCode descriptions other than for subcode=0
SubcodeDesc	Start date		survey_fndds_food	start_date	Food Details -> Start date	
SubcodeDesc	End date		survey_fndds_food	end_date	Food Details -> End date	
SubcodeDesc	Subcode description					
FNDDS_foodcat	food_code		survey_fndds_food	food_code	Food Details -> Food Code	
FNDDS_foodcat	category_number		survey_fndds_food	wweia_category_number		