

Establishment Slaughter/Processing Data – MPI Supplement – Data Documentation

Overview

These data provide supplemental slaughter and processing information about establishments regulated by the Food Safety and Inspection Service (FSIS), an agency of the U.S. Department of Agriculture (USDA). Additional demographic data are also available in the FSIS Meat, Poultry, and Egg Inspection (MPI) Directory. The Meat, Poultry and Egg Product Inspection Supplement is a listing of establishments and the activities they have performed within the last 360 days that include producing meat, poultry, and/or egg products regulated by FSIS. The MPI is currently available in both file and App formats, and links to the Apps can be found on the FSIS website (<http://www.fsis.usda.gov/mpidirectory>).

Each row in this dataset represents one FSIS regulated establishment. The MPI information reflects establishments in an Active status at the time the data are pulled.

FSIS will continue to provide the MPI Directory file in a PDF format but will now post the machine readable MPI Directory and MPI Supplement files in an open, non-proprietary csv consistent with requirements set by the [Foundations for Evidence-Based Policymaking Act of 2018](#). Additional information can be found on the [FSIS Laboratory Sampling Data web page](#).

All variable names will be in snake_case, which is a naming convention in which all letters are written in lowercase and all spaces are replaced with underscores. This format helps with the readability of variable names and is one of the most popular naming conventions in computing and various programming languages.

Data Dictionary of MPI Supplement

Demographic Variables

- *establishment_number*
 - Definition: A letter/number combination uniquely identifying each establishment.
 - Note: Can be used to merge data from different datasets. Please note that other FSIS datasets may represent this variable as *EstablishmentNumber* with capital letters and no underscores.
 - Each establishment is assigned a number for each FSIS grant of inspection that is currently active or that may have been active in the past. Each number is preceded by a variable prefix to indicate the type of grant.
 - M = Meat
 - P = Poultry
 - I = Imports
 - G = Eggs
 - V = Voluntary
 - Some establishment numbers also have a suffix letter. These letters indicate different establishments.

- Establishments with multiple numbers have multiple grants of inspection. When this happens, the different numbers are joined with a '+’.
- Examples
 - *M1234* – The prefix ‘M’ indicates that the establishment has a meat grant or had a meat grant in the past. The ‘1234’ is the numerical portion that goes with the meat grant.
 - *P1234* – The prefix ‘P’ indicates that the establishment has a poultry grant or had a poultry grant in the past. The ‘1234’ is the numerical portion that goes with the poultry grant.
 - Note: If an establishment has more than one grant, the numerical portions may be the same, but that is not required
 - If establishment *M234* has/had a poultry grant as well, the poultry number might be *P234*, but it could be a different number
 - If *M234* has/had a poultry number that is different than *P234*, (e.g. *M234+P567*), then *P234* is available and could be the number of a different establishment
 - *M1234A* and *M1234B* would be different establishments because they have different suffixes
- Establishment numbers are found on package labels
- *establishment_id*
 - Definition: A unique identifier that is used to identify an establishment across data tables in the FSIS databases
 - This data can be combined with other FSIS datasets using the *establishment_id* variable. Please note that other FSIS datasets may represent this variable as *EstablishmentID* with capital letters and no underscores.
- *establishment_name*
 - Definition: The name of an establishment on the FSIS grant of inspection
- *listeria_alternative*
 - Definition: The variable shows the Listeria Alternative that provides the lowest level of protection for any Ready-To-Eat product produced at the establishment in the past 360 days. The levels are listed below in order from highest level to lowest level:
 - Alternative 1: Use of a post-lethality treatment (which may also be the antimicrobial agent or process) that reduces or eliminates microorganisms on the product AND an antimicrobial agent or process that suppresses or limits the growth of *L. monocytogenes (Lm)*
 - Alternative 2 Choice 1: Use of a post-lethality treatment (which may be an antimicrobial agent) that reduces or eliminates *Lm* on the product
 - Alternative 2 Choice 2: Use of an antimicrobial agent or process that suppresses or limits the growth of *Lm*
 - Alternative 3: Use of sanitation measures only

- More information on the Listeria Alternatives can be found here: [Controlling Listeria monocytogenes in Post-lethality Exposed Ready-to-Eat Meat and Poultry Products | Food Safety and Inspection Service \(usda.gov\)](#)
- *processing_volume_category*
 - Definition: Establishments that produce processed products were grouped into five categories based on aggregated volume of all processed products estimated as total pounds per month:
 - 1 = Less 10,000
 - 2 = Greater than or equal to 10,000 and less than 100,000
 - 3 = Greater than or equal to 100,000 and less than 1,000,000
 - 4 = Greater than or equal to 1,000,000 and less than 10,000,000
 - 5 = Greater than or equal to 10,000,000
 - NULL indicates that an establishment does not produce any processed products
- *slaughter_volume_category*
 - Definition: Establishments that slaughter animals were grouped into five categories based on aggregated head slaughtered for the last 360 days:
 - 1 = Less 1,000
 - 2 = Greater than or equal to 1,000 and less than 10,000
 - 3 = Greater than or equal to 10,000 and less than 100,000
 - 4 = Greater than or equal to 100,000 and less than 10,000,000
 - 5 = Greater than or equal to 10,000,000
 - NULL indicates that the establishment did not slaughter animals in the last 360 days

Grant Status

Before any establishment can produce meat, poultry, or egg products, they must receive a Federal Grant of Inspection (GOI) in order to be inspected by FSIS. The below variables indicate the status of these grants. Please note that this field is reflective of an establishment's current grants. In the supplementary MPI information, the slaughter and processing fields both include a 360-day lookback. It is possible that an establishment, for example, does not have an active Meat Grant, but the supplementary MPI information may show a record of meat slaughter within the past 360 days.

More information on grants can be found here: [Apply for Grant of Inspection | Food Safety and Inspection Service \(usda.gov\)](#)

Slaughter/Processing Grants

- *active_meat_grant*
 - Definition: Indicates if an establishment has an active Meat Grant
- *last_meat_grant_edit_date*
 - Definition: The most recent date on which the grant was edited or changed
- *active_voluntary_grant*

- Definition: Indicates if an establishment has an active Voluntary Approval for Federal Inspection
- *last_voluntary_grant_edit_date*
 - Definition: The most recent date on which the Voluntary Approval for Federal Inspection was edited or changed
- *active_poultry_grant*
 - Definition: Indicates if an establishment has an active Poultry Grant
- *last_poultry_grant_edit_date*
 - Definition: The most recent date on which the grant was edited or changed
- *active_egg_grant*
 - Definition: Indicates if an establishment has an active Egg Product Grant
- *last_egg_grant_edit_date*
 - Definition: The most recent date on which the grant was edited or changed

Cell-Cultured Harvesting and Processing

With the introduction of harvesting and processing cell-cultured meat and poultry products, the grant information of each establishment for these activities will be included. Note that this will not include any species or processing category information pertaining to the products themselves. To start, only the grant information will be provided, which includes the inspection type (Meat, Poultry) and the activity type (Harvest, Processing). Please refer to the following guidance for additional information: [Human Food Made with Cultured Animal Cells | Food Safety and Inspection Service \(usda.gov\)](https://www.usda.gov/food-safety/food-made-with-cultured-animal-cells)

Below are the names of the cell-cultured variables within the MPI Supplement, and each has a similar definition to the grant and edit date variables above:

- *meat_harvest_cell_cultured*
- *meat_harvest_cell_cultured_last_edit_date*
- *meat_further_process_cell_cultured*
- *meat_further_process_cell_cultured_last_edit_date*
- *poultry_harvest_cell_cultured*
- *poultry_harvest_cell_cultured_last_edit_date*
- *poultry_further_process_cell_cultured*
- *poultry_further_process_cell_cultured_last_edit_date*

Inspection Systems

The following variables indicate the inspections systems under which each establishment operates and are separated into Meat and Poultry inspection systems. This documentation provides links to more information concerning the inspection systems.

Meat Inspection Systems

- *inspection_system_head_attached*
- *inspection_system_head_detached*

- *inspection_system_not_specified*
- *inspection_system viscera_tongue_in*
- *inspection_system viscera_tongue_out*
- *inspection_system viscera_truck*
- *inspection_system_nsis*

For information on the meat inspection systems, please refer to the Code of Federal Regulations (CFR) here: [9 CFR § 310.1 - Extent and time of post-mortem inspection; post-mortem inspection staffing standards. - Content Details - CFR-2023-title9-vol2-sec310-1 \(govinfo.gov\)](#)

For more information about the facility requirements for meat slaughter facilities, please refer to the CFR here: [9 CFR 307 - FACILITIES FOR INSPECTION - Content Details - CFR-2023-title9-vol2-part307 \(govinfo.gov\)](#)

Poultry Inspection Systems

- *insepection_system_nti1*
- *inspection_system_nti1_modified*
- *inspection_system_nti2*
- *inspection_system_nti2_modified*
- *inspection_system_sis*
- *inspection_system_nels*
- *inspection_system_traditional*
- *inspection_system_npis*
- *inspection_system_npis_waiver*

For information on the poultry inspection systems, please refer to the CFR here: [9 CFR K - Post Mortem Inspection; Disposition of Carcasses and Parts - Content Details - CFR-2023-title9-vol2-part381-subpartK \(govinfo.gov\)](#)

For more information about the facility requirements for each poultry inspection system, please refer to the CFR here: [9 CFR G - Facilities for Inspection; Overtime and Holiday Service; Billing Establishments - Content Details - CFR-2023-title9-vol2-part381-subpartG \(govinfo.gov\)](#)

Exemptions

Businesses or individuals may, at times, be exempt from federal inspection by FSIS. However, other FSIS regulatory requirements may still need to be met. The following variables are indicators of the exemptions that establishments have applied for and been granted:

Custom/Retail Exemptions

- *meat_exemption_custom_processing*
- *meat_exemption_custom_slaughter*
- *meat_exemption_retail*
- *poultry_exemption_custom_processing*
- *poultry_exemption_custom_slaughter*

- *poultry_exemption_retail*

Custom exemptions allow facilities to operate without federal inspection if they slaughter/process livestock or poultry for the exclusive private use of the livestock or poultry's owner, members of the owner's household, or the owner's nonpaying guests or employees. Retail exemptions cover the operations of types traditionally and usually conducted at retail stores, restaurants, and restaurant central kitchen facilities, exempting these operations from routine federal inspection. More information about custom and retail exemptions can be found at the following CFRs:

[9 CFR 303 - EXEMPTIONS - Content Details - CFR-2023-title9-vol2-part303 \(govinfo.gov\)](#)

[9 CFR 381 - POULTRY PRODUCTS INSPECTION REGULATIONS - Content Details - CFR-2023-title9-vol2-part381 \(govinfo.gov\)](#)

Religious Exemptions

- *meat_exemption_religious*
- *meat_exemption_religious_halal*
- *meat_exemption_religious_kosher*
- *meat_exemption_religious_other*
- *poultry_exemption_religious*
- *poultry_exemption_religious_buddhist*
- *poultry_exemption_religious_confucian*
- *poultry_exemption_religious_islamic*
- *poultry_exemption_religious_kosher*

Official establishments can be exempt from certain requirements when slaughtering or processing meat and poultry products in accordance with religious dietary laws. In addition to the previous CFRs listed, additional information on religious exemptions can be found here:

[U.S.C. Title 21 - FOOD AND DRUGS \(govinfo.gov\)](#)

[Humane Methods of Slaughter Act | Food Safety and Inspection Service \(usda.gov\)](#)

Slaughter and Processing Variables

The slaughter and processing variables included look back 360 days, and each variable reflects activities that occurred within this timeframe. There are more than 200 total variables that all follow the same patterns, so to prevent them from all being listed here, the patterns will be shown and explained. These columns consist of anywhere between one to four parts, and they are always listed in this hierarchical order:

1. **[category]**: Only used by processing; consists of Ready-To-Eat (RTE), Not Ready-To-Eat (NRTE), Raw Intact, and Raw Non-Intact.
2. **[class]**: The class of the processed or slaughtered product; consists of Meat, Poultry, Egg Products, Siluriformes, and Unspecified. The class of Unspecified may occur, for instance, when there is a combination of processed meat and poultry products within the same product.

3. [*species/slaughter_sub_class*]: The species of the processed product, or the slaughter subclass of the slaughtered animal. Can also be Unspecified in certain cases.
4. [*activity*]: Indicates “Slaughter” or “Processing”.

If a variable is missing one of these parts, this means it does not take that part into consideration. For example, the variable *rte_chicken_processing* will specifically indicate if an establishment has processed any RTE Chicken products, but the field *chicken_processing* will indicate if an establishment has processed any chicken products regardless of processing category. A variable can be comprised of any combination of these four parts to indicate the activity of an establishment.

Slaughter Variables

- Definition: Establishments with a “Yes” in one of these variables have slaughtered at least one animal in the category in the last 360 days
- All slaughter variables follow the pattern [*SlaughterSubClass*]*Slaughter* or [*Class*]*Slaughter* except for the first entry below which is simply *Slaughter*:
 - *slaughter*
 - A “Yes” in this field indicates that this establishment has slaughtered at least one animal in the past 360 days
 - *meat_slaughter*
 - A “Yes” in this field indicates that this establishment has slaughtered at least one meat/livestock animal in the past 360 days
 - *poultry_slaughter*
 - A “Yes” in this field indicates that this establishment has slaughtered at least one poultry/ratite animal in the past 360 days
 - [*slaughter_sub_class*]*_slaughter*
 - A “Yes” in one of these possible fields indicates that this establishment has slaughtered the listed animal in the past 360 days

Processed Product Variables

- Definition: Establishments with a “Yes” in one of these variables have had at least one active product with that species/processing category in the last 360 days
- The species which is being processed is often included in the product, but if a species cannot be determined, “Unspecified” will be used
 - *processing*
 - A “Yes” in this field indicates that an establishment has had at least one active product in the past 360 days
 - [*class*]*_processing*
 - Each individual processing class (*Meat, Poultry, Eggs, Siluriformes, Unspecified*)
 - One or more “Yes” values in any specified class will result in a “Yes” for its respective variable

- Example: an establishment that processes beef will have a “Yes” for *meat_processing*
 - *[processing_category]_processing*
 - Each individual processing category (*RTE, NRTE, Raw Non-Intact, Raw Intact*)
 - Any processing by an establishment in one of these categories will result in a “Yes” for its respective category
 - Example: an establishment that processes RTE meat and NRTE poultry products will have a “Yes” for *rte_processing* and *nrt_processing*
 - *[processing_category]_[class]_processing*
 - Combination of processing categories and class
 - A “Yes” in these variables is the result of an establishment processing that specific class in that specific processing category
 - Example: an establishment that processes RTE Poultry will have a “Yes” in *rte_poultry_processing*, in addition to “Yes” values in both the *poultry_processing* and *rte_processing* variables
 - *[species]_processing*
 - Each individual processing species
 - *[processing_category]_[species]_processing*
 - Combination of processing categories and species
 - A “Yes” in these variables is the result of an establishment processing that specific species in that specific processing category

Single Activity Variables

This next set of variables is calculated based on the previous slaughter and processing variables to determine if a specific establishment only partakes in one specific activity. The variable name is indicative of which activities are being assessed, but a description of each is provided below. A NULL value in one of these variables indicates that an establishment may either partake in multiple activities or none of the activities being assessed.

- Slaughter and Processing “Only” Variables
 - *slaughter_or_processing_only*
 - If an establishment only partakes in one of the two activities of slaughtering or processing
 - If an establishment only slaughters, this value will be “Slaughter”. If the establishment only processes, this value will be “Processing”. If the establishment has a record of both or neither, this value will be NULL.
 - *slaughter_only_class*
 - If an establishment slaughters only one class (*Meat or Poultry*)
 - Slaughtering both or neither will result in NULL

- *slaughter_only_species*
 - If an establishment slaughters only one subclass, it will be listed here
 - Slaughtering none or multiple species will result in NULL
- *meat_slaughter_only_species*
 - If an establishment slaughters only one subclass of Meat, regardless if it slaughters any poultry, it will be listed here
 - Establishment only slaughters beef cow, value will be “Beef Cow”
 - Establishment only slaughters chicken, value will be NULL
 - Establishment slaughters beef cow and chicken, value will be “Beef Cow”
 - Establishment slaughters beef cow and market swine, value will be NULL
- *poultry_slaughter_only_species*
 - If an establishment slaughters only one subclass of Poultry, regardless if it slaughters any meat, it will be listed here
 - Establishment only slaughters chicken, value will be “Chicken”
 - Establishment only slaughters beef cow, value will be NULL
 - Establishment slaughters beef cow and chicken, value will be “Chicken”
 - Establishment slaughters chicken and turkey, value will be NULL
- *processing_only_category*
 - If an establishment processes only one category (*RTE, NRTE, Raw Intact, Raw Non-Intact*), it will be listed here
 - Establishment only processes only NRTE beef, value will be “NRTE”
 - Establishment processes only NRTE beef and RTE beef, value will be NULL
- *processing_only_class*
 - If an establishment processes only one species class (*Meat, Poultry, Egg, Siluriformes, Unspecified*), it will be listed here
 - Establishment only processes only NRTE beef, value will be “Meat”
 - Establishment processes only NRTE chicken and RTE turkey, value will be “Poultry”
 - Establishment processes NRTE chicken and RTE beef, value will be NULL
 - This considers the “Unspecified” class
 - Establishment only processes Unspecified products, value will be “Unspecified”

- Establishment processes Unspecified products and beef, value will be NULL
- *processing_only_species*
 - If an establishment processes only one species, it will be listed here
 - This does NOT consider Egg Products or Siluriformes
 - Establishment only processes beef, value will be “Beef”
 - Establishment processes chicken and turkey, value will be NULL
 - Establishment processes beef and Siluriformes, value will be “Beef”
 - This considers the “Unspecified” species, regardless of class
 - Establishment processes only Unspecified poultry, value will be “Unspecified”
 - Establishment processes Unspecified poultry and beef, value will be NULL
 - Establishment processes Unspecified poultry and Unspecified meat, value will be “Unspecified”
- *meat_processing_only_species*
 - If an establishment processes only one species of Meat, regardless if it processes any other class, it will be listed here
 - Establishment only processes beef, value will be “Beef”
 - Establishment only processes chicken, value will be NULL
 - Establishment processes beef and chicken, value will be “Beef”
 - Establishment processes beef and pork, value will be NULL
 - This considers the “Unspecified” species
 - Establishment only processes Unspecified meat, value will be “Unspecified”
 - Establishment processes Unspecified meat and beef, value will be NULL
- *poultry_processing_only_species*
 - If an establishment processes only one species of Poultry, regardless if it processes any other class, it will be listed here
 - Establishment only processes beef, value will be NULL
 - Establishment only processes chicken, value will be “Chicken”
 - Establishment processes beef and chicken, value will be “Chicken”
 - Establishment processes chicken and turkey, value will be NULL
 - This considers the “Unspecified” species
 - Establishment only processes Unspecified poultry, value will be “Unspecified”

- Establishment processes Unspecified poultry and chicken, value will be NULL

Relationship to Other Data

This data can be combined with other FSIS datasets using the *establishment_id* variable. Please note that other FSIS datasets may represent this variable as *EstablishmentID* with capital letters and no underscores.

Notes and Limitations

Data reflect what is recorded in the Public Health Information System (PHIS) by FSIS inspection personnel of the date the report was generated.

NULL values indicate that the specific variable is not available for that record, unless otherwise specified.

Prior Analysis

These data provide additional variables for FSIS regulated establishments that can be used in analysis, in addition to the previous variables provided by the current MPI Directory. Individual variables in this data set have been used in a variety of analyses, and the previous MPI dataset as a whole is available to the public on the FSIS website. This dataset in its new form has not been used previously.