# FREIGHT ANALYSIS FRAMEWORK VERSION 4 User's Guide for Release 4.0

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For

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And
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U.S. Department of Transportation

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#### 1 Basic Definitions

#### 1.1 Mode of Transportation

Same as FAF3, FAF4 includes the seven modes of transportation from the Commodity Flow Survey (CFS) plus an extra category involving imports. Table 1 in Section 3 below provides a summary and brief description of each mode. Specifically,

- <u>Domestic Modes</u> are the modes used between domestic origins and destinations, modes used between zones of entry and domestic destination for imports, and modes used between domestic origins and zones of exit for exports.
- <u>Foreign Modes</u> comprise the mode of arrival to zones of entry for imports or mode of departure from zones of exit for exports; they do not include modes used in foreign countries to and from foreign ports and airports.

Note about Multiple Modes and Mail: FAF3 and the CFS use Multiple Modes and Mail rather than intermodal to represent commodities that move by more than one mode. Intermodal typically refers to containerized cargo that moves between ship and surface modes or between truck and rail, and repeated efforts to identify containerized cargo in the CFS have proved unsuccessful. Shipments reported as Multiple Modes can include anything from containerized cargo to coal moving from mine to railhead by truck and rail to harbor. The "Mail" component recognizes that shippers who use parcel delivery services typically do not know what modes were involved after the shipment was picked up.

#### 1.2 Type of Commodity

Commodities are classified at the 2-digit level of the Standard Classification of Transported Goods (SCTG), which is summarized in Table 2. A complete description of these categories and their constituent parts can be found at

https://bhs.econ.census.gov/bhs/cfs/Commodity%20Code%20Manual%20(CFS-1200).pdf.

#### 1.3 Geography

To minimize potential confusion between geography-related terms, the following convention is used in this document.

- Origin The beginning of a freight movement regardless of geography
  - o Domestic Origin
    - For domestic freight movement, the FAF region or state where a freight movement begins
    - For imports, the FAF region or state where a freight movement begins the domestic portion of the trip (see Zone of Entry)
    - For exports, the FAF region or state where a freight movement begins the domestic portion of the trip
  - o Foreign Origin For imports, the foreign region where a freight movement begins
- Destination The ending of a freight movement regardless of geography

- o Domestic Destination
  - For domestic freight movements, the FAF region or state where a freight movement ends
  - For imports, the FAF region or state where a freight movement ends the domestic portion of the trip
  - For exports, the FAF region or state where a freight movement ends the domestic portion of the trip (see Zone of Exit)
- o Foreign Destination For exports, the foreign region where a freight movement ends
- FAF Region The 132 domestic regions defined in Table 3.
- <u>State</u> The 50 States and Washington, D.C.
- <u>Foreign Region</u> The 8 international regions defined in Table 4 were based on information obtained from the United Nations Statistics Division. Specific countries included in each region can be found at the United Nations site.
- Zone of Entry This is the FAF region or state where an import enters the United States. This term refers to the entire region or state and does not limit the entry to any single location. This replaces the term "international gateway" used previously.
- Zone of Exit This is the FAF region or state where an export leaves the United States.
  This term refers to the entire region or state and does not limit the exit to any single location.

#### 1.4 Origin-Destination-Commodity-Mode Database

FAF4 data sets are available at the FAF4 domestic region level and the state level, both provided in Microsoft Access and Comma Separated Values (CSV) formats. Specifically,

#### **FAF Regional Database**

FAF4 domestic region level datasets and products provide information for states, state portions of large metropolitan areas, and remainders of states as listed in Table 3. Metropolitan areas consist of Metropolitan Statistical Areas or Consolidated Statistical Areas as defined by the Office of Management and Budget. When a metropolitan area is entirely within a state or when a state's portion of a multi-state metropolitan area is large enough to support the sampling procedures in the CFS, the area becomes a separate FAF region. Small single-state metropolitan areas and small portions of a multi-state metropolitan area are part of the State or Remainder of State. Different from FAF3, ten (metropolitan area type) CFS Areas were added for FAF4 and details of changes can be found at US Census CFS website.

#### **State Level Database**

The state-level datasets and products include information for the 50 States and the District of Columbia.

#### 2 Accessing FAF4 Data

FAF4 can be accessed via links from the <u>Federal Highway Administration (FHWA)</u> or the <u>Bureau of Transportation Statistics (BTS)</u>. Users can download the FAF4 regional origin-destination-commodity-mode (ODCM) dataset directly from these websites or be connected to the Data Extraction Tool for customized databases.

#### 2.1 Data Extraction Tool

The <u>FAF4 Data Extraction Tool</u> is a web-based interface that allows FAF users to select specific categories of data, through easy-to-use pull-down menus, to create customized subsets of FAF4 data. The resulting selection (output of the tool) can be saved as a CSV file and used for further analysis by the user. Note that, you can click on a column heading of the resulting table shown on the screen to reorder the displayed values by that selected variable (column). A second click on the same variable heading will reverse the ranking order. As in the FAF3, there are four types of trade data options to select from; they are Total Flows, Domestic Flows, Import Flows, and Export Flows. The pull-down menu selections provided under each option are slightly different. To make multiple selections from a menu, hold the control key while making a selection (by clicking on the menu item).

#### **Total Flows**

This option allows users to select data associates with freight moved between domestic origins and domestic destinations and includes both domestic and foreign shipments. For import shipments, the origin of the flow is zone of entry (the FAF region or state of entry), and for export shipments, the destination of the flow is zone of exit (the FAF region or state of exit). Mode of transportation for Total Flows is the mode used within domestic regions or states.

#### Pull-down menu categories are:

- *Years*: For FAF4.0, only 2012 option is active. As future FAF4 products are developed and become available, selection of other years will be activated and results will be provided for each year selected.
- *Origin*: Select from "Combined National Total", "Origin State-Specific info", or "Origin FAF Zone-Specific info" to obtain data on associate shipments by at the desired domestic-origin geography
  - o *Combine National Total* is not origin specific; it provides the total of freight movements to, from, and within the United States.
  - o *Origin State-Specific info* allows selections from another pull-down menu to the 50 States and Washington, D.C. You can then select All, one, or multiple States.
  - Origin FAF Zone-Specific info shows a pull-down menu for the 132 FAF regions.
     You can then select All, one, or multiple regions. For ease of use, two options are provided for the listing of FAF regions, one by state name (as used in the FAF3) and another by alphabetical order of the FAF zone name.

- *Destination*: As with Origin, you can select "Combine National Total", "Destination State-Specific info", or "Destination FAF Zone-Specific info" to obtain data on associate shipments by the desired domestic-destination geography.
  - o *Combine National Total* is not destination specific; it provides the total freight movements to, from and within the United States.
  - o *Destination State-Specific info* allows selections from the pull -down menu to the 50 States and Washington, D.C. You can select All, one, or multiple States.
  - o Destination FAF Zone-Specific info shows the pull-down menu to the 132 FAF regions. You can select All, one, or multiple regions. As with the origin selection, two options are provided for the listing of FAF regions, one by state name (as used in the FAF3) and another by alphabetical order of the FAF zone name.
- *Measure*: The options are "Select All", "Tons", "Ton-miles", or "Values". Note that the estimate for "Ton-miles" is not yet available thus this option is inactive at the current time.
- *Commodity*: Select from "Combine Total", "Select All" or click one or multiple individual commodities for specific commodity selections.
  - o Combine Total is not commodity specific and provides total freight moved.
  - o Select All provides data by each selected commodity individually.
  - Click on a specific commodity (or select multiple commodities) shows data associated with selected commodity only (or selected commodities individually, if multiple selections were made).
- *Domestic Mode*: Select from "Combine Total", "Select All" or pick desired one or multiple choices of individual modes.
  - o Combine Total is not mode specific and provides total freight moved by all modes.
  - o Select All provides data for freight moved by all seven modes individually.
  - o *Click on specific mode(s)* gives data on total freight volume by the selected mode(s) individually.

Once all desired selections are completed, click the **Submit** button and the results will be shown on the screen with an option to download to a CSV file.

#### **Domestic Flows**

This option allows users to select data associates with freight moved between domestic origins and domestic destinations. No foreign trade flows are included and the mode of transportation is the mode used within and between domestic regions or states. Selection categories are identical to Total Flows and include the following menus: Years, Origin, Destination, Measure, Commodity, and Mode. Only domestic shipments are considered under this type of flows. Same as above, once desired selections are completed; click on the *Submit* button to display the results and generate the customized dataset.

#### **Import Flows**

This option enables users to select data associate with freight moved from foreign origins to domestic destinations. Geographies for this type of flow data include Foreign Origin (eight zones), U.S. Entry Region (zone of entry), and Domestic Destination. Mode of transportation provided in this option consists of two parts: (1) foreign mode used between a foreign origin zone and a zone of entry in the U.S. and (2) domestic mode used between the zone of entry and its domestic destination. Data selection categories include:

- *Years*: For FAF4.0, only 2012 option is active. As future FAF4 products are developed and become available, selection of other years will be activated and results will be provided for each year selected.
- *Foreign Origin*: Select from options "Combine Total", "Select All", or one or multiple foreign origin zones.
  - o *Combine Total* is not origin specific; the option presents the total volume of freight entering the United States.
  - o Select All provides total volume of freight originated from the eight foreign regions individually.
- *U.S. Entry Region*: This represents the region where the port of entry is located. Select from options of "Combine National Total", "State-Specific info", or "FAF Zone-Specific info (sort by state)", or "FAF Zone-Specific info (sort by alphabetical order)". This represents "domestic origin" of the imported goods.
  - o *Combine National Total* is not zone specific; it shows total freight entering the United States though all ports of entry.
  - o *State-Specific* gives additional options in the pull-down menu to the 50 States and Washington, D.C. You can select All, one, or multiple States.
  - o FAF Zone-Specific gives the options in a pull down menu to the 132 FAF Regions. You can then select All, one, or multiple regions.
- *Foreign Mode*: This is the mode used between a foreign region and the U.S. region of entry for the imported goods. Selection includes "Combine Total", "Select All", and the option to choose one or multiple individual modes.
  - Combine Total is not mode specific; it provides data for total freight volume moved from the selected Foreign Origin to the selected zone of entry (i.e., U.S. Entry Region).
  - o Select All provides data on freight volumes moved by all seven modes individually.
- *Measure*: The options are "Select All", "Tons", "Ton-miles", or "Values". Note that the estimate for "Ton-miles" is not yet available thus this option is inactive at the current time.
- *Domestic Destination*: This represents the domestic destination of imported goods. One can make selections from the options: "Combine National Total", "State-Specific info", "FAF Zone-Specific info (sort by state), or "FAF Zone-Specific info (sort ty alphabetical order)".

- o *Combine National Total* is not destination-specific; the data shows aggregated total freight imported to the United States.
- o *State-Specific info* gives the options in a pull-down menu to the 50 States and Washington, DC. You can then select All, one, or multiple States to obtain associated data records.
- o FAF Zone-Specific info gives the options in the pull-down menu to the 132 FAF Regions. You can then select All, one, or multiple regions.
- *Commodity*: Select from "Combine Total", "Select All" or click one or multiple individual commodities for specific commodity selections.
  - o Combine Total is not commodity specific and provides total freight moved.
  - o Select All provides data by each selected commodity individually.
  - Click on a specific commodity (or select multiple commodities) shows data associated with selected commodity only (or selected commodities individually, if multiple selections were made).
- **Domestic Mode**: This is the mode used in moving imported goods from the "U.S. Entry Region" to its domestic destination. Options provided are "Combine Total", "Select All" or click on 1 or multiple individual modes to make selections.
  - o *Combine Total* is not mode specific and provides aggregated total freight moved for all modes combined.
  - o Select All provides data for freight moved by each of the eight domestic modes (including "no domestic mode") individually.

Once all desired selections are completed, click the **Submit** button and the results will be shown on the screen with an option to download to a CSV file.

#### **Export Flows**

This option enables users to select data associate with freight moved from domestic origins to foreign destinations. Geographies for this type of flow data include Domestic Origin, U.S. Exit Region (zone of exit), and Foreign Destination (8 foreign zones). Mode of transportation provided in this option consists of two parts: (1) domestic mode used between the domestic origin of the shipment and its zone of exit, and (2) foreign mode used between the zone of exit and foreign destination. Data selection categories include:

- Years: For FAF4.0, only 2012 option is active. As future FAF4 products are developed and become available, selection of other years will be activated and results will be provided for each year selected.
- **Measure**: The options are "Select All", "Tons", "Ton-miles", or "Values". Note that the estimate for "Ton-miles" is not yet available thus this option is inactive at the current time.
- **Domestic Origin**: This represents the domestic origin of exported goods. One can make selections from the options: "Combine National Total", "State-Specific info", "FAF Zone-Specific info (sort by state), or "FAF Zone-Specific info (sort ty alphabetical order)".

- o *Combine National Total* is not origin-specific; the data shows aggregated total freight exported from the United States.
- o *State-Specific info* gives the options in a pull-down menu to the 50 States and Washington, DC. You can then select All, one, or multiple States to obtain associated data records.
- o FAF Zone-Specific info gives the options in the pull-down menu to the 132 FAF Regions. You can then select All, one, or multiple regions.
- U.S. Exit Region: This represents the region where the port of exit is located. Select from options of "Combine National Total", "State-Specific info", or "FAF Zone-Specific info (sort by state)", or "FAF Zone-Specific info (sort by alphabetical order)". This represents "domestic destination" of the exported goods.
  - o *Combine National Total* is not zone specific; it shows total freight leaving the United States though all ports of exit.
  - o *State-Specific* gives additional options in the pull-down menu to the 50 States and Washington, D.C. You can select All, one, or multiple States.
  - FAF Zone-Specific gives the options in a pull down menu to the 132 FAF Regions. You can then select All, one, or multiple regions.
- **Domestic Mode**: This is the mode used in moving exported goods from domestic origin to its "U.S. Exit Region". Options provided are "Combine Total", "Select All" or click on 1 or multiple individual modes to make selections.
  - o *Combine Total* is not mode specific and provides aggregated total freight moved for all modes combined.
  - o Select All provides data for freight moved by each of the seven domestic modes individually.
- **Foreign Destination**: Select from options "Combine Total", "Select All", or one or multiple foreign destination zones.
  - o *Combine Total* is not destination specific; the option presents the total volume of freight leaving the United States.
  - Select All provides total volume of freight terminated in the eight foreign regions individually.
- **Commodity**: Select from "Combine Total", "Select All" or click one or multiple individual commodities for specific commodity selections.
  - o Combine Total is not commodity specific and provides total freight moved.
  - o Select All provides data by each selected commodity individually.
  - Click on a specific commodity (or select multiple commodities) shows data associated with selected commodity only (or selected commodities individually, if multiple selections were made).
- **Foreign Mode**: This is the mode used between a foreign destination region and the U.S. region of exit for the exported goods. Selection includes "Combine Total", "Select All", and the option to choose one or multiple individual modes.
  - o *Combine Total* is not mode specific; it provides data for total freight volume moved from the selected zone of exit (i.e., U.S. Exit Region) to the selected Foreign Destination.

 Select All provides data on freight volumes moved by all seven modes individually.

Once you have completed your selections, click the **Submit** button and the results will be provided on the screen with an option to download to a CSV file.

# A NOTE OF CAUTION about determining value and tons for an individual region or state

The Data Extraction Tool (DET) was designed to aid users in selecting customized subsets of FAF 4 database (which includes over 1.7 million records) for further analysis or uses in other applications. That is, instead of downloading the rather large database, users can select specific records of interests, or obtain data at higher aggregated levels as needed.

Caution should be exercised when using this online tool to generate summary "tabulations," however. As an example, when using the DET to generate a combined total flow for domestic shipments originated from Kansas (i.e., Kansas to all states), the results produced from DET include (1) freight that is moving within the region (e.g., Kansas to Kansas), and (2) all freight leaving the region (e.g., Kansas to all other states). Therefore, if you want to identify only the freight that is moving out of a specific region, you will need to perform two separate "tabulation" processes. First, identify the totals for shipments moving from the desired origin (or to a destination). Second, obtain the within-region total by selecting the region or state of interest as both the origin and destination, and then subtract those results from the total results obtained in the first tabulation step.

#### 2.2 Summary Statistics

FAF4 includes several pre-generated data products providing commonly used statistics. Statistics reports are typically Excel spreadsheets, which can be opened, viewed, and saved or downloaded for later processing.

Specifically, a series of Excel worksheets were generated using total flows that moved between domestic origins and destinations, including both domestic and foreign shipments. The foreign shipments represent flows between the region of entry and destination state for imported shipments and flows between the origin state and region of exit for exported shipments. Modes of transportation provided in these tables are the modes used within domestic regions. Four worksheets are available for the FAF4 base-year 2012, including the following:

- Shipments within, from, and to state by mode by value/weight
- Shipments within, from and to state by commodity by value/weight
- Top ten commodities shipped within, from, and to state by value/weight
- Top trade partners by state by value/weight

The worksheets contain a spreadsheet for each measure and its corresponding percentage of the total measure that is accessed by clicking on the appropriate tab at the bottom of the Excel

worksheet. Note that "Million Dollars" is the unit of measure for value and "thousand tons" is the unit of measure for weight. These worksheets contain pivot tables that filter and format FAF data into easily readable and printable tables. When a worksheet is first opened, it defaults to the value spreadsheet for Alabama. Any table heading that has a small icon to the right of it has a filter that allows you to change what is displayed by clicking on the icon and checking the desired box(s) in the drop-down menu. You should be aware that these filters do not carry over from spreadsheet to spreadsheet and you will need to enter them for each one.

# **3** Code Tables and Data Dictionary

**Table 1 FAF Modes** 

Code	Mode	Description
1	Truck	Includes private and for-hire truck.  Does not include truck that is part of <b>Multiple Modes and Mail</b> or truck moves in conjunction with domestic air cargo.
2	Rail	Includes any common carrier or private railroad.  Does not include rail that is part of Multiple Modes and Mail.
3	Water	Includes shallow draft, deep draft, Great Lakes and intra-port shipments.  Does not include water that is part of <b>Multiple Modes and Mail</b> .
4	Air (includes truck-air)	Includes shipments move by air or a combination of truck and air in commercial or private aircraft. Includes air freight and air express. In the case of imports and exports by air, domestic moves by ground to and from the port of entry or exit are categorized with <b>Truck</b> .
5	Multiple Modes and Mail	Includes shipments by multiple modes and by parcel delivery services, U.S. Postal Service, or couriers (capped at 150 pounds). This category is not limited to containerized or trailer-on-flatcar shipments.
6	Pipeline	Includes crude petroleum, natural gas, and product pipelines.  Note: Does include flows from offshore wells to land which are counted as <b>Water</b> moves by the U.S. Army Corps of Engineers.  Does not include pipeline that is part of <b>Multiple Modes and Mail</b> .
7	Other and Unknown	Includes movements not elsewhere classified such as flyaway aircraft, and shipments for which the mode cannot be determined.
8	No Domestic Mode	Includes shipments that have an international mode, but no domestic mode and is limited to import shipments of crude petroleum transferred directly from inbound ships to a U.S. refinery at the zone of entry. This is done to ensure a proper accounting of import flows, while avoiding assigning flows to the domestic transportation network that do not use it.

# **Table 2 FAF Commodity Codes**

Code	Commodity Description		
01	Animals and Fish (live)		
02	Cereal Grains (includes seed)		
03	Agricultural Products (excludes Animal Feed, Cereal Grains, and Forage Products)		
04	Animal Feed, Eggs, Honey, and Other Products of Animal Origin		
05	Meat, Poultry, Fish, Seafood, and Their Preparations		
06	Milled Grain Products and Preparations, and Bakery Products		
07	Other Prepared Foodstuffs, Fats and Oils		
08	Alcoholic Beverages and Denatured Alcohol		
09	Tobacco Products		
10	Monumental or Building Stone		
11	Natural Sands		
12	Gravel and Crushed Stone (excludes Dolomite and Slate)		
13	Other Non-Metallic Minerals not elsewhere classified		
14	Metallic Ores and Concentrates		
15	Coal		
16	Crude Petroleum		
17	Gasoline, Aviation Turbine Fuel, and Ethanol (includes Kerosene, and Fuel Alcohols)		
18	Fuel Oils (includes Diesel, Bunker C, and Biodiesel)		
19	Other Coal and Petroleum Products, not elsewhere classified		
20	Basic Chemicals		
21	Pharmaceutical Products		
22	Fertilizers		
23	Other Chemical Products and Preparations		
24	Plastics and Rubber		
25	Logs and Other Wood in the Rough		
26	Wood Products		
27	Pulp, Newsprint, Paper, and Paperboard		
28	Paper or Paperboard Articles		
29	Printed Products		
30	Textiles, Leather, and Articles of Textiles or Leather		
31	Non-Metallic Mineral Products		
32	Base Metal in Primary or Semi-Finished Forms and in Finished Basic Shapes		
33	Articles of Base Metal		
34	Machinery		
35	Electronic and Other Electrical Equipment and Components, and Office Equipment		
36	Motorized and Other Vehicles (includes parts)		
37	Transportation Equipment, not elsewhere classified		
38	Precision Instruments and Apparatus		
39	Furniture, Mattresses and Mattress Supports, Lamps, Lighting Fittings, and Illuminated Signs		
40	Miscellaneous Manufactured Products		
41	Waste and Scrap (excludes of agriculture or food, see 041xx)		
43	Mixed Freight		
99	Commodity unknown		

# **Table 3 FAF Domestic Regions**

Distringham-Hoover-Talladega, AL CFS Area	Code	FAF Region*	State	State/Remainder of State which includes Part of this CMA*	Type of Region**
O19	011 Birmingham-Hoover-Talladega, AL CFS Area A		AL		С
O20	012	Mobile-Daphne-Fairhope, AL CFS Area	AL		С
O41	019	Remainder of Alabama	AL		R
042         Tucson-Nogales, AZ CFS Area         AZ         R           049         Remainder of Arizona         AZ         R           050         Remainder of Arkansas         AR         S           061         Los Angeles-Long Beach, CA CFS Area         CA         C           062         Sacramento-Roseville, CA CFS Area         CA         C           063         San Diego-Carlsbad-San Marcos, CA CFS Area         CA         M           064         San Jose-San Francisco-Oakland, CA CFS Area         CA         C           065         Fresno-Madera, CA CFS Area         CA         C           066         Remainder of California         CA         R           081         Denver-Aurora, CO CFS Area         CO         R           089         Remainder of Colorado         CO         R           091         Hartford-West Hartford-East Hartford, CT CFS Area         CT         M           092         Remainder of Connecticut         CT         CT         R           101         Philadelphia-Reading-Camden, PA-NJ-DE-MD CFS Area (CT Part)         DE         PA, NJ, MD         C           110         Philadelphia-Reading-Camden, PA-NJ-DE-MD WY         DC         VA, MD, WV         SM <td< td=""><td>020</td><td>Alaska</td><td>AK</td><td></td><td>S</td></td<>	020	Alaska	AK		S
049   Remainder of Arizona   AZ   R	041	Phoenix-Mesa-Glendale, AZ CFS Area	AZ		M
DSO	042	Tucson-Nogales, AZ CFS Area	ΑZ		С
061         Los Angeles-Long Beach, CA CFS Area         CA         C           062         Sacramento-Roseville, CA CFS Area         CA         C           063         San Diego-Carlsbad-San Marcos, CA CFS Area         CA         C           064         San Jose-San Francisco-Oakland, CA CFS Area         CA         C           065         Fresno-Madera, CA CFS Area         CA         C           069         Remainder of California         CA         R           081         Denver-Aurora, CO CFS Area         CO         C           089         Remainder of Colorado         CO         R           091         Hartford-West Hartford-East Hartford, CT CFS Area         CT         M           092         Remainder of Connecticut         CT         M           093         Remainder of Connecticut         CT         R           101         Philadelphia-Reading-Camden, PA-NJ-DE-MD CFS Area (CT Part)         DE         PA, NJ, MD         C           109         Remainder of Delaware         DE         PA, NJ, MD         C           111         Vashington-Arlington-Alexandria, DC-VA-MD-WV         CFS Area (DC Part)         DC         VA, MD, WV         SM           121         Jacksonville-St. Marys-Palatka, FL-GA CFS Area (FL Pa	049	Remainder of Arizona	AZ		R
062         Sacramento-Roseville, CA CFS Area         CA         C           063         San Diego-Carlsbad-San Marcos, CA CFS Area         CA         M           064         San Jose-San Francisco-Oakland, CA CFS Area         CA         C           065         Fresno-Madera, CA CFS Area         CA         C           069         Remainder of California         CA         R           081         Denver-Aurora, CO CFS Area         CO         C           089         Remainder of Colorado         CO         R           091         Hartford-West Hartford-East Hartford, CT CFS Area         CT         M           092         New York-Newark, NY-NJ-CT-PA CFS Area (CT Part)         CT         NY, NY, PA         C           099         Remainder of Connecticut         CT         R         R           101         Area (DE Part)         DE         PA, NJ, MD         C           102         Remainder of Delaware         DE         PA, NJ, MD         C           111         Mashington-Arlington-Alexandria, DC-VA-MD-WV CFS Area (DE Part)         DC         VA, MD, WV         SM           121         Jacksonville-St. Marys-Palatka, FL-GA CFS Area (FL Part)         FL         GA         C           122         Miam	050	Remainder of Arkansas	AR		S
San Diego-Carlsbad-San Marcos, CA CFS Area   CA   M	061	Los Angeles-Long Beach, CA CFS Area	CA		С
064         San Jose-San Francisco-Oakland, CA CFS Area         CA         C           065         Fresno-Madera, CA CFS Area         CA         C           069         Remainder of California         CA         R           081         Denver-Aurora, CO CFS Area         CO         C           089         Remainder of Colorado         CO         R           091         Hartford-West Hartford-East Hartford, CT CFS Area         CT         M           092         New York-Newark, NY-NJ-CT-PA CFS Area (CT Part)         CT         NY, NY, PA         C           099         Remainder of Connecticut         CT         R         R           101         Philadelphia-Reading-Camden, PA-NJ-DE-MD CFS Area (CT Part)         DE         PA, NJ, MD         C           109         Remainder of Delaware         DE         R         R           111         Washington-Arlington-Alexandria, DC-VA-MD-WV CFS Area (DC Part)         DC         VA, MD, WV         SM           121         Jacksonville-St. Marys-Palatka, FL-GA CFS Area (FL Part)         FL         GA         C           122         Miami-Fort Lauderdale-Port St. Lucie, FL CFS Area         FL         C         C           123         Orlando-Deltona-Daytona Beach, FL CFS Area         FL	062	Sacramento-Roseville, CA CFS Area	CA		С
O65   Fresno-Madera, CA CFS Area   CA   C	063	San Diego-Carlsbad-San Marcos, CA CFS Area	CA		M
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081Denver-Aurora, CO CFS AreaCOC089Remainder of ColoradoCOR091Hartford-West Hartford-East Hartford, CT CFS AreaCTM092New York-Newark, NY-NJ-CT-PA CFS Area (CT Part)CTNY, NY, PAC099Remainder of ConnecticutCTR101Philadelphia-Reading-Camden, PA-NJ-DE-MD CFS Area (DE Part)DEPA, NJ, MDC109Remainder of DelawareDER111Washington-Arlington-Alexandria, DC-VA-MD-WV CFS Area (DC Part)DCVA, MD, WVSM121Jacksonville-St. Marys-Palatka, FL-GA CFS Area (FL Part)FLGAC122Miami-Fort Lauderdale-Port St. Lucie, FL CFS AreaFLC123Orlando-Deltona-Daytona Beach, FL CFS AreaFLC124Tampa-St. Petersburg-Clearwater, FL CFS AreaFLM129Remainder of FloridaFLR131Atlanta-Athens-Clarke County-Sandy Springs, GA CFS AreaGAC132Savannah-Hinesville-Statesboro, GA CFS AreaGAC139Remainder of GeorgiaGAR151Urban Honolulu, HI CFS AreaHIM159Remainder of HawaiiHIR160IdahoIDIN, WIS171Chicago-Naperville, IL-IN-WI CFS Area (IL Part)ILMO172St. Louis-St. Charles-Farmington, MO-IL CFS AreaIIMOC	065	Fresno-Madera, CA CFS Area	CA		С
081Denver-Aurora, CO CFS AreaCOC089Remainder of ColoradoCOR091Hartford-West Hartford-East Hartford, CT CFS AreaCTM092New York-Newark, NY-NJ-CT-PA CFS Area (CT Part)CTNY, NY, PAC099Remainder of ConnecticutCTR101Philadelphia-Reading-Camden, PA-NJ-DE-MD CFS Area (DE Part)DEPA, NJ, MDC109Remainder of DelawareDER111Washington-Arlington-Alexandria, DC-VA-MD-WV CFS Area (DC Part)DCVA, MD, WVSM121Jacksonville-St. Marys-Palatka, FL-GA CFS Area (FL Part)FLGAC122Miami-Fort Lauderdale-Port St. Lucie, FL CFS AreaFLC123Orlando-Deltona-Daytona Beach, FL CFS AreaFLC124Tampa-St. Petersburg-Clearwater, FL CFS AreaFLM129Remainder of FloridaFLR131Atlanta-Athens-Clarke County-Sandy Springs, GA CFS AreaGAC132Savannah-Hinesville-Statesboro, GA CFS AreaGAC139Remainder of GeorgiaGAR151Urban Honolulu, HI CFS AreaHIM159Remainder of HawaiiHIR160IdahoIDIN, WIS171Chicago-Naperville, IL-IN-WI CFS Area (IL Part)ILMO172St. Louis-St. Charles-Farmington, MO-IL CFS AreaIIMOC	069	Remainder of California	CA		R
Martford-West Hartford-East Hartford, CT CFS Area   CT	081		CO		С
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Part   C1   NY, NY, PA   C2	091	Hartford-West Hartford-East Hartford, CT CFS Area	СТ		M
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Philadelphia-Reading-Camden, PA-NJ-DE-MD CFS Area (DE Part)   DE   PA, NJ, MD   C	099	·	СТ		R
Remainder of Delaware   DE		Philadelphia-Reading-Camden, PA-NJ-DE-MD CFS		PA, NJ, MD	С
CFS Area (DC Part)  121	109		DE		R
121Jacksonville-St. Marys-Palatka, FL-GA CFS Area (FL Part)FLGAC122Miami-Fort Lauderdale-Port St. Lucie, FL CFS AreaFLC123Orlando-Deltona-Daytona Beach, FL CFS AreaFLC124Tampa-St. Petersburg-Clearwater, FL CFS AreaFLM129Remainder of FloridaFLR131Atlanta-Athens-Clarke County-Sandy Springs, GA CFS AreaGAC132Savannah-Hinesville-Statesboro, GA CFS AreaGAC139Remainder of GeorgiaGAR151Urban Honolulu, HI CFS AreaHIM159Remainder of HawaiiHIR160IdahoIDIN, WIS171Chicago-Naperville, IL-IN-WI CFS Area (IL Part)ILC172St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL Part)ILMOC		Washington-Arlington-Alexandria, DC-VA-MD-WV		VA, MD, WV	SM
123 Orlando-Deltona-Daytona Beach, FL CFS Area 124 Tampa-St. Petersburg-Clearwater, FL CFS Area 129 Remainder of Florida 131 Atlanta-Athens-Clarke County-Sandy Springs, GA CFS Area 132 Savannah-Hinesville-Statesboro, GA CFS Area 139 Remainder of Georgia GA 151 Urban Honolulu, HI CFS Area 151 Urban Honolulu, HI CFS Area 159 Remainder of Hawaii 150 Idaho 151 ID IN, WI 150 Idaho 151 Chicago-Naperville, IL-IN-WI CFS Area (IL Part) 152 St. Louis-St. Charles-Farmington, MO-IL CFS Area 153 IL MO 154 MO 155 MO 165 MO 176 Chicago-Naperville, IL-IN-WI CFS Area 177 IL MO 178 MO 179 MO 180 MO 18	121	Jacksonville-St. Marys-Palatka, FL-GA CFS Area (FL	FL	GA	С
124Tampa-St. Petersburg-Clearwater, FL CFS AreaFLM129Remainder of FloridaFLR131Atlanta-Athens-Clarke County-Sandy Springs, GA CFS AreaGAC132Savannah-Hinesville-Statesboro, GA CFS AreaGAC139Remainder of GeorgiaGAR151Urban Honolulu, HI CFS AreaHIM159Remainder of HawaiiHIR160IdahoIDIN, WIS171Chicago-Naperville, IL-IN-WI CFS Area (IL Part)ILC172St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL Part)ILMOC	122	Miami-Fort Lauderdale-Port St. Lucie, FL CFS Area	FL		С
129Remainder of FloridaFLR131Atlanta-Athens-Clarke County-Sandy Springs, GA CFS AreaGAC132Savannah-Hinesville-Statesboro, GA CFS AreaGAC139Remainder of GeorgiaGAR151Urban Honolulu, HI CFS AreaHIM159Remainder of HawaiiHIR160IdahoIDIN, WIS171Chicago-Naperville, IL-IN-WI CFS Area (IL Part)ILC172St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL Part)ILMOC	123	Orlando-Deltona-Daytona Beach, FL CFS Area	FL		С
Atlanta-Athens-Clarke County-Sandy Springs, GA CFS Area  GA CS Savannah-Hinesville-Statesboro, GA CFS Area GA CS Remainder of Georgia GA CS	124	Tampa-St. Petersburg-Clearwater, FL CFS Area	FL		M
CFS Area  CFS Area  GA  CS  Savannah-Hinesville-Statesboro, GA CFS Area  GA  CS  Remainder of Georgia  GA  R  151  Urban Honolulu, HI CFS Area  HI  SR  HI  R  160  Idaho  ID  IN, WI  SS  171  Chicago-Naperville, IL-IN-WI CFS Area (IL Part)  St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL MO)  CC  CS  CS  CS  CS  R  HI  CS  R  CS  ID  IN, WI  CC  CC  IT  IL  MO  CC  CC  CC  CC  CC  CC  CC  CC  CC	129	Remainder of Florida	FL		R
132Savannah-Hinesville-Statesboro, GA CFS AreaGAC139Remainder of GeorgiaGAR151Urban Honolulu, HI CFS AreaHIM159Remainder of HawaiiHIR160IdahoIDIN, WIS171Chicago-Naperville, IL-IN-WI CFS Area (IL Part)ILC172St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL Part)ILMOC	131	, , , ,	GA		С
139Remainder of GeorgiaGAR151Urban Honolulu, HI CFS AreaHIM159Remainder of HawaiiHIR160IdahoIDIN, WIS171Chicago-Naperville, IL-IN-WI CFS Area (IL Part)ILC172St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL Part)ILMOC	132		GA		С
151 Urban Honolulu, HI CFS Area HI M 159 Remainder of Hawaii HI R 160 Idaho ID IN, WI S 171 Chicago-Naperville, IL-IN-WI CFS Area (IL Part) IL C 172 St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL Part) IL MO C		·	+		
159Remainder of HawaiiHIR160IdahoIDIN, WIS171Chicago-Naperville, IL-IN-WI CFS Area (IL Part)ILC172St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL Part)ILMOC					
160IdahoIDIN, WIS171Chicago-Naperville, IL-IN-WI CFS Area (IL Part)ILC172St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL Part)ILMOC			-		
171 Chicago-Naperville, IL-IN-WI CFS Area (IL Part) IL C  172 St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL Part) IL MO C				IN, WI	
172 St. Louis-St. Charles-Farmington, MO-IL CFS Area (IL Part) IL MO					
		St. Louis-St. Charles-Farmington, MO-IL CFS Area		МО	С
	179	Remainder of Illinois	IL		R

Code	FAF Region*	State	State/Remainder of State which includes Part of this CMA*	Type of Region**
181	Chicago-Naperville, IL-IN-WI CFS Area (IN Part)	IN	IL, WI	С
182	Indianapolis-Carmel-Muncie, IN CFS Area	IN	,	С
183	Fort Wayne-Huntington-Auburn, IN CFS Area	IN		С
189	Remainder of Indiana	IN		R
190	Remainder of Iowa	IA		S
201	Kansas City-Overland Park-Kansas City, MO-KS CFS Area (KS Part)	KS	МО	С
202	Wichita-Arkansas City-Winfield, KS CFS Area	KS		С
209	Remainder of Kansas	KS		R
211	Cincinnati-Wilmington-Maysville, OH-KY-IN CFS Area (KY Part)	KY	OH, IN	С
212	Louisville/Jefferson County-Elizabethtown-Madison, KY-IN CFS Area (KY Part)	KY	IN	С
219	Remainder of Kentucky	KY		R
221	Baton Rouge, LA CFS Area	LA		M
222	Lake Charles, LA CFS Area	LA		M
223	New Orleans-Metairie-Hammond, LA-MS CFS Area (LA Part)	LA	MS	С
229	Remainder of Louisiana	LA		R
230	Remainder of Maine	ME		S
241	Baltimore-Columbia-Towson, MD CFS Area			M
242	Washington-Arlington-Alexandria, DC-VA-MD-WV CFS Area (MD Part)	MD MD	DC, VA, WV	M
249	Remainder of Maryland	MD		R
251	Boston-Worcester-Providence, MA-RI-NH-CT CFS Area (MA Part)	MA	RI, NH, CT	С
259	Remainder of Massachusetts			R
261	Detroit-Warren-Ann Arbor, MI CFS Area	MA MI		C
262	Grand Rapids-Wyoming-Muskegon, MI CFS Area	MI		С
269	Remainder of Michigan	MI		R
271	Minneapolis-St. Paul, MN-WI CFS Area (MN Part)	MN	WI	C
279	Remainder of Minnesota	MN		R
280	Remainder of Mississippi	MS		S
291	Kansas City-Overland Park-Kansas City, MO-KS CFS Area (MO Part)	МО	KS	C
292	St Louis St Charles Farmington MO II CES Area		IL	С
299	Remainder of Missouri	MO		R
300				S
311	Omaha-Council Rluffe-Fremont NF-IA CFS Area		IA	С
319	Remainder of Nebraska	NE		R
321	Las Vegas-Henderson, NV-AZ CFS Area (NV Part)	NV	AZ	C
329	Remainder of Nevada	NV		R

Code	FAF Region*	State	State/Remainder of State which includes Part of this CMA*	Type of Region**
Boston-Worcester-Providence, MA-RI-NH-CT CFS Area (NH Part)		NH	MA, RI, CT	С
339	Remainder of New Hampshire	NH		R
341	New York-Newark, NY-NJ-CT-PA CFS Area (NJ Part)	NJ	NY, CT, PA	С
342	Philadelphia-Reading-Camden, PA-NJ-DE-MD CFS Area (NJ Part)	NJ	PA, DE, MD	С
350	Remainder of New Mexico	NM		S
361	Albany-Schenectady, NY CFS Area	NY		С
362	Buffalo-Cheektowaga, NY CFS Area	NY		C
363	New York-Newark, NY-NJ-CT-PA CFS Area (NY Part)	NY	NJ, CT, PA	С
364	Rochester-Batavia-Seneca Falls, NY CFS Area	NY		C
369	Remainder of New York	NY		R
371	Charlotte-Concord, NC-SC CFS Area (NC Part)	NC	SC	C
372	Greensboro-Winston-Salem-High Point, NC CFS Area	NC		C
373	Raleigh-Durham-Chapel Hill, NC CFS Area	NC		C
379	Remainder of North Carolina	NC		R
380	Remainder of North Dakota	ND		S
391	Cincinnati-Wilmington-Maysville, OH-KY-IN CFS Area (OH Part)	ОН	KY, IN	С
392	Cleveland-Akron-Canton, OH CFS Area	ОН		С
393	Columbus-Marion-Zanesville, OH CFS Area	ОН		С
394	Dayton-Springfield-Sidney, OH CFS Area	ОН		С
399	Remainder of Ohio	ОН		R
401	Oklahoma City-Shawnee, OK CFS Area	OK		С
402	Tulsa-Muskogee-Bartlesville, OK CFS Area	OK		С
409	Remainder of Oklahoma	OK		R
411	Portland-Vancouver-Salem, OR-WA CFS Area (OR Part)	OR	WA	С
419	Remainder of Oregon	OR		R
421	Philadelphia-Reading-Camden, PA-NJ-DE-MD CFS Area (PA Part)	PA	NJ, DE, MD	С
422	Pittsburgh-New Castle-Weirton, PA-OH-WV CFS Area (PA Part)	PA	OH, WV	С
423	New York-Newark, NY-NJ-CT-PA CFS Area (PA Part)	PA	NY, NJ, CT	С
429	Remainder of Pennsylvania	PA		R
441	Boston-Worcester-Providence, MA-RI-NH-CT CFS Area (RI Part)		MA, NH, CT	SM
451	Charleston-North Charleston-Summerville SC CES			M
452	Greenville-Spartanburg-Anderson, SC CFS Area	SC		С
459 Remainder of South Carolina		SC		R

Code	FAF Region*	State	State/Remainder of State which includes Part of this CMA*	Type of Region**
460	460 Remainder of South Dakota S			S
471	Memphis, TN-MS-AR CFS Area (TN Part)	TN	MS, AR	С
472	Nashville-Davidson-Murfreesboro, TN CFS Area	TN		С
473	Knoxville-Morristown-Sevierville, TN CFS Area	TN		C
479	Remainder of Tennessee	TN		R
481	Austin-Round Rock, TX CFS Area	TX		M
482	Beaumont-Port Arthur, TX CFS Area	TX		M
483	Corpus Christi-Kingsville-Alice, TX CFS Area	TX		С
484	Dallas-Fort Worth, TX-OK CFS Area (TX Part)	TX	OK	С
485	El Paso-Las Cruces, TX-NM CFS Area (TX Part)	TX	NM	С
486	Houston-The Woodlands, TX CFS Area	TX		C
487	Laredo, TX CFS Area	TX		M
488	San Antonio-New Braunfels, TX CFS Area	TX		M
489	Remainder of Texas	TX		R
491	Salt Lake City-Provo-Orem, UT CFS Area	UT		С
499	Remainder of Utah	UT		R
500	Remainder of Vermont	VT		S
511	Richmond, VA CFS Area	VA		M
512	Virginia Beach-Norfolk, VA-NC CFS Area (VA Part)	VA	NC	C
513	Washington-Arlington-Alexandria, DC-VA-MD-WV CFS Area (VA Part)	VA	DC, MD, WV	M
519	Remainder of Virginia	VA		R
531	Seattle-Tacoma, WA CFS Area	WA		С
532	Portland-Vancouver-Salem, OR-WA CFS Area (WA Part)	WA	OR	С
539	Remainder of Washington	WA		R
540	Remainder of West Virginia			S
551	551 Milwaukee-Racine-Waukesha, WI CFS Area			С
559	Remainder of Wisconsin	WI		R
560	560 Remainder of Wyoming			S

<sup>\*</sup> Many census metropolitan area (CMA) boundaries cross more than one state. Major subareas of a CMA are defined as separate FAF regions, one for each state. Small subareas of a CMA are included with the State or Rest of State region identified in this field.

C: Combined Statistical Area (CSA)

M: Metropolitan Statistical Area (MSA)

R: Rest of State-everything in a state that is not included in a CSA or MSA (RoS)

S: State that does not include a CSA or MSA

SM: Whole state is part of MSA

<sup>\*\*</sup>Type of Region codes:

### **Table 4 FAF Foreign Regions**

Code	FAF Region
801	Canada
802	Mexico
803	Rest of Americas
804	Europe
805	Africa
806	SW & Central
	Asia
807	Eastern Asia
808	SE Asia &
	Oceania

## **Table 5 Data Dictionary for FAF Dataset**

Field	Description	Codes	Comment
fr_orig	Foreign region origin	Table 4	Imports: Foreign origin
dms_org	Domestic region origin		Domestic: Origin Zone
		Table 3	Imports: Zone of entry
			Exports: Origin Zone
dms_orgst	Domestic state origin	FIPS code	Domestic: Origin State
			Imports: State of entry
			Exports: Origin State
dms_dest	Domestic region destination		Domestic: Destination Zone
		Table 3	Imports: Destination Zone
			Exports: Zone of exit
dms_destst	Domestic state destination	FIPS code	Domestic: Destination State
			Imports: Destination State
			Exports: State of exit
fr_dest	Foreign region destination	Table 4	Exports: Foreign destination
fr_inmode	Foreign inbound mode	Table 1	Imports: Mode from foreign origin to zone of
			entry
dms_mode	Domestic mode	Table 1	Domestic: Mode
			Imports: Mode from Zone of entry to
			destination
			Exports: Mode from origin to zone of exit
fr_outmode	Foreign outbound mode	Table 1	Exports: Mode from zone of exit to foreign
			destination
sctg2	Commodity		
		Table 2	
trade_type	Type of trade	1 Domestic	
		Only	
		2 Import	
		3 Export	
value_2012	Value in \$million		Value in 2012 nominal dollars
tons_2012	Weight in thousand tons		