



# Producer Price Indexes



## PPI Updates Commodity Weight Allocations for the Final Demand–Intermediate Demand Aggregation Structure

### Notice

Effective with the release of January 2021 data on February 17, 2021, the Bureau of Labor Statistics (BLS) updated the weight allocations used to calculate its Final Demand–Intermediate Demand (FD–ID) Producer Price Indexes (PPI). PPI weights continue to be based on shipment values from the 2012 economic census. However, to more accurately reflect recent sales patterns, BLS changed the proportion of these weights allocated to the various FD–ID categories to base them on data published in the 2012 Input–Output (I–O) Accounts from the Bureau of Economic Analysis (BEA). The allocations were previously based on the 2007 I–O Accounts. This update affects all portions of the PPI FD–ID system: final demand indexes, intermediate demand by commodity type indexes, and intermediate demand by production flow indexes.

This notice discusses updates to final demand and intermediate demand by commodity type indexes together and then describes updates to the intermediate demand by production flow indexes.[\[1\]](#)

The allocation update will not change the PPI classification system, reference base, aggregation structure, or historical index data. The update does cause some significant, though not unexpected, shifts in the relative importance of component series in the FD–ID system. Appendix A of this report presents some of these more noteworthy shifts.

### Final Demand and Intermediate Demand by Commodity Type Methodology

The primary data source used in the weight allocations of the PPI commodity FD–ID indexes by commodity type is the Use of commodities by industries, before redefinition table (hereafter known as the use table).[\[2\]](#) The use table shows—for each commodity group—the dollar value (in millions of dollars at producers' prices) used by each industry and final user.

BLS analysts convert these dollar values of use to percentages and sum them to 100 percent for each I–O commodity group. Analysts truncate individual values of less than 0.5 percent and normalize the residual values.

BLS analysts then determine the FD–ID categories that correspond to the uses of each commodity group in the I–O table. Next, analysts analyze each detailed record on the I–O table and assign it to one or more of the detailed FD–ID codes. These assignments combine information about the type of use indicated in the table and informed judgment by BLS analysts relating to definitions of the FD–ID categories. The next section of this article includes these definitions. Only the lowest level FD–ID codes are used in the assignment process. Analysts do not make direct assignments to the higher level FD–ID codes (for example, FD4 Final Demand). These higher level indexes are calculated through aggregation of the lower level FD–ID indexes.

To make the FD–ID assignments, the analyst determines

1. What is the product (transportation service, food, fuel, capital equipment, trade service, unprocessed material input, processed material input, etc.)?
2. In what manner will this product be used by the consuming industry or user? The combined answer to these questions determines the appropriate FD–ID code assignment. Often, the same product will fall into different FD–ID categories, depending on its use. For example, fresh fruit purchased by households is considered a Crude Finished Consumer Food (FD41113), while the same fruit purchased by a food company for canning is considered an Unprocessed Foodstuff and Feedstuff (ID621).

BLS analysts assign FD–ID weight allocations at the PPI 6-digit commodity group level, because this is the level used for building the lowest level FD–ID indexes. In the next step, analysts match the 6-digit PPI codes with I–O codes in the BEA use table, using a concordance between the PPI and the North American Standard Industrial Classification System (NAICS). BEA I–O data are generally classified according to NAICS. BEA provides a concordance between the NAICS and the I–O industry and commodity codes, which further enhances the match. Next, BLS analysts apply the percentage allocations by FD–ID for each PPI 6-digit code to the total value weight of the 6-digit commodity. The resultant products are used in their respective FD–ID aggregations for index calculation. Relative importance weights are then calculated for component 6-digit series in the PPI by FD–ID. [\[3\]](#)

### Final Demand and Intermediate Demand by Commodity Type Structure and Definitions

Type of buyer and type of commodity are two concepts inherent in the Final Demand–Intermediate Demand by Commodity Type categorization.

The two main buyer types are final-demand buyers and intermediate-demand buyers.

- Final-demand buyers include consumers, government, foreigners, and domestic industries that purchase the commodity as capital investment.
- Intermediate demand buyers consist of domestic industries that purchase the commodity as an input to production, excluding capital investment.

The four main type of commodities are unprocessed goods, processed goods, services, and construction.

- Unprocessed goods are goods that have undergone no fabrication. For PPI purposes, unprocessed goods can be subject to picking, sorting, washing, packing, or transporting.
- Processed goods include goods that have been subjected to a treatment or series of treatments that in some way alters the initial physical nature or function of the goods. Mixing goods or assembling components is considered processing because, though the good itself is not changed, its function or usefulness is altered
- Services include trade services; transportation and warehousing services; and services excluding trade, transportation, and warehousing. Trade services encompass both wholesale and retail. The PPI views wholesalers and retailers as suppliers of distributive services (rather than as suppliers of goods), because little, if any, transformation of these goods takes place. This approach implies that the output of a wholesale or retail trade establishment is represented by the difference between its selling price of a good and the acquisition price for that same item. Gross margin prices, as collected by PPI, reflect the value added by the establishment for services such as marketing, storing, and displaying goods in convenient locations and making the goods easily available for customers to purchase. Transportation services include transportation of passengers, transportation of cargo, services related to transportation, and warehousing and storage of goods. Services less trade, transportation, and warehousing include all other types of services, such as health care services, professional services, financial services, entertainment services, etc.

- Construction encompasses the creation and maintenance and repair of buildings or other engineering projects.

The Final Demand–Intermediate Demand (by commodity type) system consists of five major portions differentiated by the type of commodity and class of buyer. The five major FD–ID categories are processed goods for intermediate demand; unprocessed goods for intermediate demand; services for intermediate demand; construction for intermediate demand, and final demand.

- Processed goods for intermediate demand include fabricated goods purchased by businesses as inputs to production, excluding capital investment.
- Unprocessed goods for intermediate demand are goods that have undergone no fabrication and are purchased by businesses as inputs to production.
- Services for intermediate demand include trade services; transportation and warehousing services; and services less trade, transportation, and warehousing purchased by businesses as inputs to production.
- Construction for intermediate demand includes maintenance and repair construction purchased by businesses.
- Final demand include all types of commodities (goods, services, and construction) consumed as personal consumption, by government, by businesses as capital investment, and as exports.

The full Final Demand–Intermediate Demand by Commodity Type structure is provided below. Direct weight allocations are made to the FD–ID categories which are italicized. Definitions of the detailed indexes follow the listing of their respective structure.

### Structure of Processed Goods for Intermediate Demand

**Table 1**

Index Code	Title
<b>ID61</b>	Processed Goods for Intermediate Demand
<b>ID611</b>	Materials and Components for Manufacturing
<b>ID6111</b>	Materials for Manufacturing
<b>ID61111</b>	Materials for Food Manufacturing
<b>ID61112</b>	Materials for Nondurable Manufacturing
<b>ID61113</b>	Materials for Durable Manufacturing
<b>ID6112</b>	Components for Manufacturing
<b>ID61121</b>	Components for Nondurable Manufacturing
<b>ID61122</b>	Components for Durable Manufacturing
<b>ID612</b>	Materials and Components for Construction
<b>ID6121</b>	Materials for Construction
<b>ID6122</b>	Components for Construction
<b>ID613</b>	Processed Fuels and Lubricants for Intermediate Demand
<b>ID6131</b>	Processed Fuels and Lubricants for Manufacturing Industries
<b>ID6132</b>	Processed Fuels and Lubricants for Nonmanufacturing Industries
<b>ID614</b>	Containers for Intermediate Demand
<b>ID615</b>	Supplies for Intermediate Demand
<b>ID6151</b>	Supplies to Manufacturing Industries
<b>ID6152</b>	Supplies to Nonmanufacturing Industries
<b>ID61521</b>	Supplies to Nonmanufacturing Industries, Feeds
<b>ID61522</b>	Supplies to Nonmanufacturing Industries, Other than Feeds

### Definitions of Processed Goods for Intermediate Demand

[Skip Definitions»](#)

#### **ID61111 MATERIALS FOR FOOD MANUFACTURING**

contains partially processed food products that must undergo further preparation before reaching the final customer. Examples of materials for food manufacturing include milk products, canned or frozen fruits and vegetables, processed sugars, and certain chemicals.

#### **ID61112 MATERIALS FOR NONDURABLE MANUFACTURING**

contains partially processed products that will undergo further preparation or usage in the manufacture of goods which have a life expectancy of less than 3 years. Examples of materials for nondurables manufacturing include cotton yarn used for shirts and woodpulp used to make paper.

#### **ID61113 MATERIALS FOR DURABLE MANUFACTURING**

contains partially processed products that will undergo further preparation or usage in the manufacture of goods that have a life expectancy of more than 3 years. Examples of materials for durable manufacturing include textile materials, lumber, metals, and cement.

#### **ID61121 COMPONENTS FOR NONDURABLE MANUFACTURING**

includes products, such as buttons and springs that are completely finished except for installation or assembly into a larger nondurable item. Nondurable goods are considered to have a life expectancy of less than 3 years.

#### **ID61122 COMPONENTS FOR DURABLE MANUFACTURING**

includes products, such as pumps, valves, and fittings that are completely finished except for installation or assembly into a larger durable item. Durable goods are considered to have a life expectancy of 3 years or more.

#### **ID6121 MATERIALS FOR CONSTRUCTION**

includes partially finished products that will undergo further preparation into a construction product. This usage is specifically defined in the I-O tables. Examples include lumber, concrete pipe, and architectural coatings.

#### **ID6122 COMPONENTS FOR CONSTRUCTION**

includes completely finished products that will undergo installation into a construction product. This usage is specifically defined in the I–O tables. Examples include metal doors and water heaters.

#### **ID6131 PROCESSED FUELS AND LUBRICANTS FOR MANUFACTURING INDUSTRIES**

includes fuel and related products used in manufacturing industries to generate heat and power and for lubrication. Examples include industrial electric power, industrial natural gas, gasoline, diesel fuel, and greases and oils.

#### **ID6132 PROCESSED FUELS AND LUBRICANTS FOR NONMANUFACTURING INDUSTRIES**

includes fuel and related products used in nonmanufacturing industries to generate heat and power and for lubrication. Examples include commercial electric power, commercial natural gas, jet fuel, diesel fuel, and greases and oils.

#### **ID614 CONTAINERS FOR INTERMEDIATE DEMAND**

contains paper, wood, plastic, metal, and glass receptacles used to ease the transport of unwieldy items.

#### **ID6151 SUPPLIES TO MANUFACTURING INDUSTRIES**

includes products consumed in the manufacturing industries during the course of production or distribution of other items but not physically incorporated in those items. These products are distinguished from capital equipment in that they are not amortized. Examples of supplies for manufacturing industries include plastic packaging, small cutting tools, and machinery.

#### **ID61521 SUPPLIES TO NONMANUFACTURING INDUSTRIES, FEEDS**

includes feed products consumed by animals in the livestock industry. Examples of manufactured animal feeds include poultry feed, hog feed, vegetable cakes, and meal fee.

#### **ID61522 SUPPLIES TO NONMANUFACTURING INDUSTRIES, OTHER THAN FEEDS**

includes products used in the nonmanufacturing sector other than the animal feed industry, which are consumed during the course of production or distribution of other items but not physically incorporated in those items. Examples include sedatives for hospitals, tires, motor vehicle parts for auto repair shops, and photographic supplies.

### **Structure of Unprocessed Goods for Intermediate Demand**

**Table 2**

<b>ID62</b>	<b>Unprocessed Goods for Intermediate Demand</b>
<b>ID621</b>	Unprocessed Foodstuffs and Feedstuffs
<b>ID622</b>	Unprocessed Nonfood Materials
<b>ID6221</b>	Unprocessed Nonfood Materials, Except Fuel
<b>ID62211</b>	Unprocessed Nonfood Materials, Except Fuel to Manufacturing Industries
<b>ID62212</b>	Unprocessed Nonfood Materials, Except Fuel to Nonmanufacturing Industries
<b>ID6222</b>	Unprocessed Fuel
<b>ID62221</b>	Unprocessed Fuel to Manufacturing Industries
<b>ID62222</b>	Unprocessed Fuel to Nonmanufacturing Industries

### **Definitions of Unprocessed Goods for Intermediate Demand**

[Skip Definitions »](#)

#### **ID621 UNPROCESSED FOODSTUFFS AND FEEDSTUFFS**

contains basic agricultural products that will undergo some processing prior to becoming completed food products, as well agricultural products consumed directly by the agricultural sector. Examples include fresh fruit that will be canned or raw corn consumed by livestock as animal feed. Other examples would be cattle, hogs, or chickens intended for slaughter, or raw cane sugar that will be refined.

#### **ID62211 UNPROCESSED NONFOOD MATERIALS, EXCEPT FUEL TO MANUFACTURING INDUSTRIES**

contains minerals, agricultural products, and scrap materials that are intended to be used in a manufacturing process other than manufacturing of foods. Raw cotton that will be turned into yarn, or aluminum base scrap that will end up as refined aluminum, are examples of this category. Crude petroleum is contained in this grouping rather than in Crude Fuels, because it is not used as a fuel in its crude state; it can be used as a raw material in manufacturing (for example, synthetic rubber or pharmaceuticals). Also included in the category are agricultural inputs to manufactures of pet foods and alcoholic beverages.

#### **ID62212 UNPROCESSED NONFOOD MATERIALS, EXCEPT FUEL TO NONMANUFACTURING INDUSTRIES**

includes products such as sand, gravel, and crushed stone primarily used in the construction industry.

#### **ID62221 UNPROCESSED FUEL TO MANUFACTURING INDUSTRIES**

contains unrefined energy sources, specifically coal and natural gas, used to generate heat and power in manufacturing industries.

#### **ID62222 UNPROCESSED FUEL TO NONMANUFACTURING INDUSTRIES**

includes coal and natural gas used to generate heat and power in nonmanufacturing industries.

### **Structure of Services for Intermediate Demand**

[Skip Table »](#)

**Table 3**

<b>Index Code</b>	<b>Title</b>
<b>ID63</b>	Services for Intermediate Demand
<b>ID631</b>	Services less Trade, Transportation, and Warehousing for Intermediate Demand
<b>ID6311</b>	Services less Trade, Transportation, and Warehousing for Manufacturing Industries
<b>ID6312</b>	Services less Trade, Transportation, and Warehousing for Nonmanufacturing Industries
<b>ID632</b>	Transportation and Warehousing Services for Intermediate Demand
<b>ID6321</b>	Transportation of Passengers for Intermediate Demand
<b>ID63211</b>	Transportation of Passengers for Manufacturing Industries
<b>ID63212</b>	Transportation of Passengers for Nonmanufacturing Industries
<b>ID6322</b>	Transportation and Warehousing of Goods for Intermediate Demand
<b>ID63221</b>	Transportation of Goods for Manufacturing Industries
<b>ID63222</b>	Transportation of Goods for Nonmanufacturing Industries
<b>ID633</b>	Trade Services for Intermediate Demand
<b>ID6331</b>	Trade Services for Manufacturing Industries
<b>ID6332</b>	Trade Services Nonmanufacturing Industries

### **Definitions of Services for Intermediate Demand**

[Skip Definitions »](#)

**ID6311 SERVICES LESS TRADE, TRANSPORTATION, AND WAREHOUSING FOR MANUFACTURING INDUSTRIES**

includes services used by the manufacturing sector other than trade and transportation services. Examples include manufacturing services, such as contract work on textiles and metal coating and allied services, as well as other types of services, including engineering services, truck rental, and software publishing.

**ID6312 SERVICES LESS TRADE, TRANSPORTATION, AND WAREHOUSING FOR NONMANUFACTURING INDUSTRIES**

includes services used by nonmanufacturing sectors other than trade and transportation services. Financial services, legal services, architectural services, consulting services, and telecommunication services are examples.

**ID63211 TRANSPORTATION OF PASSENGERS FOR MANUFACTURING INDUSTRIES**

**ID63212 TRANSPORTATION OF PASSENGERS FOR NONMANUFACTURING INDUSTRIES**

composed of business travel services, including railroad and airline passenger services, purchased by nonmanufacturing industries.

**ID63221 TRANSPORTATION OF GOODS FOR MANUFACTURING INDUSTRIES**

includes shipping, services related to shipping, and warehousing services for goods sold to manufacturing industries. Examples include pipeline transportation of petroleum products, long-distance motor carrying, and rail transportation of freight and mail.

**ID63222 TRANSPORTATION OF GOODS FOR NONMANUFACTURING INDUSTRIES**

includes shipping, services related to shipping, and warehousing services for goods sold to nonmanufacturing industries. Examples include U.S. Postal Service, air transportation of freight, courier and messenger services, and marine cargo handling.

**ID6331 TRADE SERVICES FOR MANUFACTURING INDUSTRIES**

contains retail and wholesale trade services for goods sold to manufacturing industries. For PPI purposes, trade services are a margin service, measured as the difference between selling and acquisition price of the good. Parts and supplies for machinery and equipment wholesaling; metals, mineral, and ores wholesaling; and paper and plastics wholesaling are examples of trade services for manufacturing industries.

**ID6332 TRADE SERVICES FOR NONMANUFACTURING INDUSTRIES**

contains retail and wholesale trade services for goods sold to nonmanufacturing industries. For PPI purposes, trade services are a margin service, measured as the difference between selling and acquisition price of the good. Examples include hardware and building materials and supplies retailing, chemicals and allied products wholesaling, and automotive parts retailing.

**Structure of Construction for Intermediate Demand**

[Skip Table »](#)

**Table 4**

Index Code	Title
ID64	Construction for Intermediate Demand

**Definitions of Construction for Intermediate Demand**

[Skip Definitions »](#)

**ID64 CONSTRUCTION FOR INTERMEDIATE DEMAND**

includes maintenance and repair construction purchased by businesses as inputs to construction. Note that all new construction is defined as capital investment and is included under final demand.

**Structure of Final Demand**

[Skip Table »](#)

**Table 5**

Index Code	Title
FD4	Final Demand
FD41	Final Demand Goods
FD411	Final Demand Foods
FD4111	Finished Consumer Foods
FD41112	Finished Consumer Foods, Processed
FD41113	Finished Consumer Foods, Crude
FD4112	Government Purchased Foods
FD4113	Foods for Export
FD412	Final Demand Energy
FD4121	Finished Consumer Energy Goods
FD4122	Government Purchased Energy
FD4123	Energy for Export
FD413	Final Demand Goods less Foods and Energy
FD4131	Finished Goods less Foods and Energy
FD41311	Finished Consumer Goods less Foods and Energy
FD413111	Nondurable Consumer Goods less Foods and Energy
FD413112	Durable Consumer Goods
FD41312	Private Capital Equipment
FD413121	Private Capital Equipment for Manufacturing Industries
FD413122	Private Capital Equipment for Nonmanufacturing Industries
FD4132	Government Purchased Goods Excluding Foods and Energy
FD41321	Government Purchased Goods Excluding Foods, Energy, and Capital Equipment
FD41322	Government Purchased Capital Equipment
FD4133	Goods for Export excluding Foods and Energy
FD42	Final Demand Services
FD421	Final Demand Services less Trade, Transportation, and Warehousing

Index Code	Title
FD4211	Finished Services less Trade, Transportation, and Warehousing
FD42111	Finished Consumer Services less Trade, Transportation, and Warehousing
FD42112	Private Capital Investment Services less Trade, Transportation, and Warehousing
FD4212	Government Purchased Services less Trade, Transportation, and Warehousing
FD42121	Government Purchased Services less Trade, Transportation, and Warehousing excluding Capital Investment
FD42122	Government Purchased Capital Investment Services less Trade, Transportation, and Warehousing
FD4213	Services for Export less Trade, Transportation, and Warehousing
FD422	Final Demand Transportation and Warehousing Services
FD4221	Transportation of Passengers for Final Demand
FD42211	Transportation of Private Passengers
FD42212	Transportation of Government Passengers
FD42213	Transportation of Passengers for Export
FD4222	Transportation and Warehousing of Goods for Final Demand
FD42221	Transportation and Warehousing of Finished Goods
FD422211	Transportation and Warehousing of Personal Consumption Goods
FD422212	Transportation and Warehousing of Private Capital Equipment
FD42222	Transportation and Warehousing of Government Purchased Goods
FD42223	Transportation and Warehousing of Exports
FD423	Final Demand Trade Services
FD4231	Trade of Finished Goods
FD42311	Trade of Personal Consumption Goods
FD42312	Trade of Private Capital Equipment
FD4232	Trade of Government Purchased Goods
FD42321	Trade of Government Purchased Goods Excluding Capital Equipment
FD42322	Trade of Government Purchased Capital Equipment
	Trade of Exports
FD43	Final Demand Construction
FD431	Construction for Private Capital Investment
FD432	Construction for Government

## Definitions of Final Demand

[Skip Definitions »](#)

### FD41112 FINISHED CONSUMER FOODS, PROCESSED

contains prepared food products that go directly to the consumer. Examples of processed finished foods include bread, packaged fluid milk and related products, candy and nuts, and carbonated drinks.

### FD41112 FINISHED CONSUMER FOODS, CRUDE

contains basic food products such as fresh fruits and vegetables that are used in an unprocessed state by the consumer.

### FD4112 GOVERNMENT PURCHASED FOODS

includes both processed and unprocessed foods purchased by government.

### FD4113 FOODS FOR EXPORT

includes both processed and unprocessed foods sold as export. Examples include oilseeds, corn, and beef and veal.

### FD4121 FINISHED CONSUMER ENERGY GOODS

made up of energy goods, such as residential electric power, residential natural gas, gasoline, and home heating oil, purchased by consumers.

### FD4122 GOVERNMENT PURCHASED ENERGY

includes energy goods purchased by the government. Examples of government purchased energy goods are jet fuel and diesel fuel.

### FD4123 ENERGY FOR EXPORT

composed of energy goods sold as exports. Jet fuel, gasoline, and diesel fuel are examples of exported energy goods.

### FD413111 NONDURABLE CONSUMER GOODS LESS FOODS AND ENERGY

contains nonfood and non-energy products ready for final consumption, with a life expectancy of less than 3 years. Examples include alcoholic beverages, women's apparel, and cigarettes.

### FD413112 DURABLE CONSUMER GOODS

contains nonfood and non-energy products ready for final consumption, with a life expectancy of more than 3 years. Examples include furniture, passenger cars, and appliances.

### FD413121 PRIVATE CAPITAL EQUIPMENT FOR MANUFACTURING INDUSTRIES

contains products that will undergo no further processing and are used to manufacture or transport other goods in the manufacturing sector. These products are distinguished by the fact that they are amortized over their useful lives and are identified in the I-O tables as Gross Private Fixed Investment. Examples of capital equipment for the manufacturing industry include industrial molds, motor trucks, tractors, and conveying equipment.

### FD413122 PRIVATE CAPITAL EQUIPMENT FOR NONMANUFACTURING INDUSTRIES

contains products that undergo no further processing and are used in the operation of nonmanufacturing industries. These products are distinguished by the fact that they are amortized over their useful lives and are identified in the I-O tables as Gross Private Fixed Investment. Examples of this category include telephone and telegraph equipment, office furniture, passenger cars bought by leasing companies, and civilian aircraft.

### FD41321 GOVERNMENT PURCHASED GOODS EXCLUDING FOODS, ENERGY, AND CAPITAL EQUIPMENT

includes government-purchased durable and nondurable goods other than foods, energy, and capital equipment.

### FD41322 GOVERNMENT PURCHASED CAPITAL EQUIPMENT

contains products that undergo no further processing and are used in the operation of the government. These products are distinguished by the fact that they are amortized over their useful lives and are identified in the I-O tables as Gross Government Fixed Investment. Examples include military aircraft, and search, detection,

navigation, and guidance systems and equipment.

**FD4133 GOODS FOR EXPORT EXCLUDING FOODS AND ENERGY**

composed of unprocessed and processed goods, other than foods and energy, sold as exports. Raw cotton, chemicals, and civilian aircraft are examples of goods for export excluding foods and energy.

**FD42111 FINISHED CONSUMER SERVICES LESS TRADE, TRANSPORTATION, AND WAREHOUSING**

includes services other than trade and transportation services purchased by consumers, such as telecommunication services, medical care, insurance, and lodging.

**FD42112 PRIVATE CAPITAL INVESTMENT SERVICES LESS TRADE, TRANSPORTATION, AND WAREHOUSING**

composed of services other than trade, transportation, and warehousing services identified in the I–O tables as Gross Private Fixed Investment. Examples include engineering services, support activities for oil and gas operations, and system software publishing.

**FD42121 GOVERNMENT PURCHASED SERVICES LESS TRADE, TRANSPORTATION, AND WAREHOUSING EXCLUDING CAPITAL INVESTMENT**

includes government-purchased services other than trade, transportation, warehousing, and capital investment services. Examples are legal services and telecommunications services.

**FD42122 GOVERNMENT PURCHASED CAPITAL INVESTMENT SERVICES LESS TRADE, TRANSPORTATION, AND WAREHOUSING**

composed of government-purchased services other than trade, transportation, and warehousing identified in the I–O tables as Gross Government Fixed Investment. Examples include software publishing and information technology support services.

**FD4213 SERVICES FOR EXPORT LESS TRADE, TRANSPORTATION, AND WAREHOUSING**

includes services sold by domestic producers to foreigners other than trade, transportation, and warehousing services. Engineering services and securities, brokerage, and investment advice are examples.

**FD42211 TRANSPORTATION OF PRIVATE PASSENGERS**

includes consumer travel services, such as airline passenger services and rail transportation of passengers.

**FD42212 TRANSPORTATION OF GOVERNMENT PASSENGERS**

includes government-purchased travel services.

**FD42213 TRANSPORTATION OF PASSENGERS FOR EXPORT**

composed of travel services sold as exports. An example is airline passenger services.

**FD42221 TRANSPORTATION AND WAREHOUSING OF PERSONAL CONSUMPTION GOODS**

includes shipping, services related to shipping, and warehousing services for goods eventually sold to consumers. Examples of transportation and warehousing of personal consumption goods are long distance motor carrying, deep sea water transportation of freight, and U.S. Postal Service.

**FD42222 TRANSPORTATION AND WAREHOUSING OF PRIVATE CAPITAL EQUIPMENT**

includes shipping, services related to shipping, and warehousing services for goods sold as capital investment. This use category is identified in the I–O tables as Gross Private Fixed Investment.

**FD42223 TRANSPORTATION AND WAREHOUSING OF GOVERNMENT PURCHASED GOODS**

includes shipping, services related to shipping, and warehousing services for goods sold to government.

**FD42223 TRANSPORTATION AND WAREHOUSING OF EXPORTS**

includes shipping, services related to shipping, and warehousing services for goods sold as exports.

**FD42311 TRADE OF PERSONAL CONSUMPTION GOODS**

composed of retail and wholesale trade services for goods sold to manufacturing industries. For PPI purposes, trade services are a margin service, measured as the difference between selling and acquisition price of a good. Examples of personal consumption trade services are apparel wholesaling, food and alcohol retailing, and automotive fuels and lubricant retailing.

**FD42312 TRADE OF PRIVATE CAPITAL EQUIPMENT**

includes retail and wholesale trade services for goods sold as capital equipment. Machinery and equipment wholesaling, furnishings wholesaling, and automotive retailing represent examples of private capital equipment trade services.

**FD42321 TRADE OF GOVERNMENT PURCHASED GOODS EXCLUDING CAPITAL EQUIPMENT**

composed of retail and wholesale trade services for goods sold to government other than capital equipment. For PPI purposes, trade services are a margin service, measured as the difference between selling and acquisition price of the good. Examples include chemicals and allied products wholesaling and parts and supplies for machinery wholesaling.

**FD42322 TRADE OF GOVERNMENT PURCHASED CAPITAL EQUIPMENT**

includes retail and wholesale trade services for goods sold to government as capital equipment. For PPI purposes, trade services are a margin service, measured as the difference between selling and acquisition price of a good. Examples of trade of government purchased capital investment are machinery and equipment wholesaling and furnishing wholesaling.

**FD4233 TRADE OF EXPORTS**

includes retail and wholesale trade services for goods sold as exports. For PPI purposes, trade services are a margin service, measured as the difference between selling and acquisition price of the good. Examples include machinery and equipment wholesaling and alcohol wholesaling.

**FD431 CONSTRUCTION FOR PRIVATE CAPITAL INVESTMENT**

includes construction identified in the I–O tables as Gross Private Fixed Investment. All new construction is identified in the I–O tables as fixed investment. Examples include new office building construction, new industrial building construction, and new healthcare building construction.

**FD432 CONSTRUCTION FOR GOVERNMENT**

composed of all construction purchased by the government. New school building construction and maintenance and repair of nonresidential buildings are examples of construction for government.

## Intermediate Demand by Production Flow Methodology

The intermediate demand by production flow portion of the FD-ID system reorganizes into four stages of production the same set of intermediate demand commodities included in the intermediate demand by commodity type portion of the system. The stages are developed such that commodities in one stage are used as inputs to produce commodities in the next stage. The stage-based treatment of intermediate demand allows data users to study price transmission relationships between the intermediate stages of production as well as the relationship to final demand.

To construct the intermediate demand by production flow indexes, a five-step procedure is followed. The procedure utilizes both BEA Make of commodities by industries and Use of commodities by industries, before redefinition tables. Both tables are included in the Benchmark Input-Output Accounts of the United States, 2012, published by BEA. As stated earlier, Use of commodities by industries, before redefinition shows "for each commodity" the dollar value (in millions of dollars at producers' prices) used by each industry and final user. The Make of commodities by industries table indicates the dollar value (in millions of dollars at producers' prices) of each commodity made by each industry.

The first step in the procedure is to determine the total production of each industry in the economy. In general, industries are classified as primary producers of specific goods or services; however, industries may also be secondary producers of other goods or services. A firm classified in the automobile industry, for example, produces primarily automobiles, but the same firm may also produce and sell additional commodities, such as car parts, scrap metal, or car rentals. These additional commodities are classified as secondary production. The first step therefore requires determining both the primary production and secondary production of each industry in the economy. The 2012 BEA Make of commodities by industries table was used for this purpose.

The second step is to ascertain where the total output of each industry is consumed. This step requires determining, for each industry, the portion of the industry output consumed as final demand and the portion consumed as intermediate demand. For the intermediate-demand portion, determining which specific industries are consuming the industry's output also is required. BEA 2012 Use of commodities by industries, before redefinition data were employed to make this determination.

The third step in developing stages is to assign industries to stages of production. Within a stage-based system, transactions can be classified as forward flow, backflow, or internal flow. Forward flow occurs when an industry sells its output to an industry classified in a forward stage of production (to be used as an input) or to final demand. Internal flow occurs when an industry sells its output to be used as an input by another industry classified within the same stage of production. Backflow occurs when an industry sells its output to be used as an input by an industry classified in an earlier stage of production in the system. To successfully develop a forward-flowing system of price change, industries should be assigned to stages in a manner that minimizes backflow and internal flow while maximizing forward flow within the system. Towards this end, PPI assigned all industries included in the BEA I-O tables to stages in a manner that attempted to maximize net forward flow of the system. Net forward flow is defined as:

- Forward flow occurs when an industry sells its output to an industry classified in a forward stage of production (to be used as an input) or to final demand.
- Internal flow occurs when an industry sells its output to be used as an input by another industry classified within the same stage of production.
- Backflow occurs when an industry sells its output to be used as an input by an industry classified in an earlier stage of production in the system.

**Net forward flow = (forward shipments of the industry stage + inputs received from previous stages of process) - (backward shipments of the industry stage + inputs received from forward stages of process)**

The PPI program implements a two-step procedure to attempt to maximize net forward flow. In the first step, a set of rules is used to assign industries to stages and select the appropriate number of stages for the system. The system that the PPI program eventually chose is a four-stage system. The set of rules used to assign industries to the four stages is summarized as follows:

- Assign industry to stage 4 if shipments sold to final demand  $\geq$  75 percent of industry production.
- Assign industry to stage 3 if shipments sold to final demand and to stage 4  $\geq$  65 percent of industry production and shipments sold to final demand < 75 percent of production.
- Assign industry to stage 2 if shipments sold to final demand, to stage 4, and to stage 3  $\geq$  65 percent of industry production; and shipments sold to final demand and to stage 4 < 65 percent of production; and shipments sold to final demand < 75 percent.
- Assign industry to stage 1 if it does not meet the conditions of stage 4, 3, or 2.

Before selecting the number of stages and set of rules just described, the PPI program examined many different sets of rules and numbers of stages. It eventually chose the aforementioned system because it maximized net forward flow as compared with other sets of rules examined. [\[4\]](#)

After the assignment of industries to stages by use of the aforementioned rules, the second step in the procedure to maximize net forward flow was to examine the effects on net forward flow of moving individual industries to stages other than that to which they were originally assigned. In cases in which there were substantial gains to net forward flow, industries were left in the new stage.

The PPI production-flow-based system exhibits strong forward flow and little backflow: 83.3 percent of transactions in the system are forward flowing, 5.6 percent are back flowing, and 11.1 percent are internally flowing.

The fourth step in constructing the production-flow-based intermediate demand indexes is to determine the commodities to be included and weights to be used in the intermediate demand indexes. The four main indexes in the production flow system are

- stage 1 intermediate demand,
- stage 2 intermediate demand,
- stage 3 intermediate demand, and
- stage 4 intermediate demand.

These indexes track prices for the inputs consumed by industries in each of the four stages of production. They do not track prices for the output produced by industries in each of the four stages of production. For example, the stage 4 intermediate demand index tracks price change for inputs consumed by industries included in the fourth stage of production. Recall that industries classified in the fourth stage of production mostly produce goods sold to final demand. The stage 4 intermediate demand index therefore measures price change in the inputs to production of industries that produce primarily final-demand commodities.

The BEA Use of commodities by industries, before redefinition table is used to determine the set of commodities consumed by industries in each of the four stages. The use table indicates the commodities consumed by industries in terms of BEA I-O codes. Since FD-ID indexes are constructed from 6-digit PPI commodity group level indexes, BEA I-O codes are matched to 6-digit PPI codes through use of a concordance between the PPI commodity codes and BEA I-O data. In the end, through the BEA use table and the PPI/I-O concordance, the set of 6-digit PPI commodities consumed by each stage is determined, and these are the commodities that compose

each of the four stages of intermediate demand included in the production flow model. The final step in developing the production flow indexes is to convert the indexes from gross weighted indexes to net weighted indexes. Net weighting is accomplished by removing transactions in which an input is both produced and consumed within a given stage. Net weighting eliminates multiple counting of price change from the production flow price indexes. Net weights are developed using both the BEA Use of commodities by industries and Make of commodities by industries tables.

[Appendix B, Table 1](#) presents the updated industry stage assignments based on 2007 I-O data. [Appendix B, Table 2](#) presents shifts in industry stage assignments between 2002 and 2007 I-O data.

[Skip Appendix »](#)

## Appendix A

[Skip Table »](#)

### Appendix A. Noteworthy Relative Importance Shifts in Final Demand and Intermediate Demand by Commodity Type - Final Demand

Title	Index code	Relative importance shift to final demand		
		Previous	Updated	Difference
<b>Final Demand Goods</b>				
Corn	012202	0.132	0.059	0.073
Prepared bituminous coal and lignite	051209	0.014	0.081	-0.067
Unleaded regular gasoline	057104	0.960	1.024	-0.064
Unleaded regular gasoline	057104	0.960	1.024	-0.064
Trucks, truck tractors, & bus chassis 14,000 lb or less, incl. minivans & suvs	141105	1.452	1.389	0.063
<b>Final Demand Services</b>				
Long-distance motor carrying	301202	1.799	1.688	0.111
Affiliate agreements, programming sales, and retransmission fees for cable and broadcast tv	351101	0.216	0.333	-0.117
Internet advertising sales, excluding Internet advertising sold by print publishers	365101	0.130	0.026	0.104
Securities brokerage, dealing, and investment advice	401101	0.574	0.785	-0.211
Portfolio management	402101	1.540	2.391	-0.851
Life insurance	411101	0.276	0.439	-0.163
Annuities	412101	0.345	0.550	-0.205
Administrative and general management consulting services	454101	0.171	0.307	-0.136
Food wholesaling	578101	1.006	0.897	0.109
Other commodities wholesaling	579101	1.871	1.725	0.146

### Appendix A. Noteworthy Relative Importance Shifts in Final Demand and Intermediate Demand by Commodity Type - Processed Goods

Title	Index code	Relative importance shift to final demand		
		Previous	Updated	Difference
<b>Processed Goods for Intermediate Demand</b>				
Malt beverages	026101	0.108	0.229	0.121
Pet food	029402	0.096	0.211	0.115
Unleaded regular gasoline	057104	1.521	1.223	-0.298
Primary basic organic chemicals	061401	1.798	1.613	-0.185
Other basic organics	061403	2.709	2.840	0.131
Pharmaceuticals acting on the central nervous system and the sense organs	063802	0.219	0.126	-0.093
Plastic packaging products	072A01	1.098	0.981	-0.117
Sanitary paper products, including stock	091501	0.485	0.297	-0.188
Integrated microcircuits	117839	0.413	0.512	0.099
Other aircraft parts and equipment	142501	0.666	0.771	0.105

### Appendix A. Noteworthy Relative Importance Shifts in Final Demand and Intermediate Demand by Commodity Type - Unprocessed Goods

Title	Index code	Relative importance shift to final demand		
		Previous	Updated	Difference
<b>Unprocessed Goods for Intermediate Demand</b>				
Fresh vegetables, except potatoes	011302	0.627	0.451	-0.176
Wheat	012101	1.584	1.769	0.185
Corn	012202	5.507	6.855	1.348
Raw cotton	015101	0.581	0.747	0.166
Oilseeds	018301	4.694	3.679	-1.015
Prepared bituminous coal and lignite	051209	5.106	3.864	-1.242
Natural gas	053101	12.497	12.774	0.277
Crude petroleum (domestic production)	056101	15.145	16.285	1.140
Corrugated recyclable paper	091203	1.053	0.651	-0.402
Copper and nickel ores	102102	1.210	0.960	-0.250

### Appendix A. Noteworthy Relative Importance Shifts in Final Demand and Intermediate Demand by Commodity Type - Services

Title	Index code	Relative importance shift to final demand		
		Previous	Updated	Difference
<b>Services for Intermediate Demand</b>				
Affiliate agreements, programming sales, and retransmission fees for cable and broadcast tv	351101	0.919	0.631	-0.288
Internet advertising sales, excluding Internet advertising sold by print publishers	365101	0.496	0.816	0.320
Cellular phone and other wireless telecommunication services	372101	1.022	1.307	0.285
Securities brokerage, dealing, and investment advice	401101	2.666	2.244	-0.422
Portfolio management	402101	4.855	2.832	-2.023
Life insurance	411101	0.440	0.000	-0.440
Annuities	412101	0.551	0.000	-0.551
Temporary help services	463101	3.183	3.525	0.342
Co-employment staffing services	463201	2.771	3.048	0.277
Food wholesaling	578101	1.753	2.006	0.253

# Appendix B

## Intermediate Demand by Production Flow Assignments

The following table presents the final industry stage assignments of the PPI production flow model on the basis of 2012 BEA I–O data. Stage 1 includes 65 industries, stage 2 contains 76 industries, stage 3 includes 125 industries, and stage 4 contains 133 industries.

[← Return to text](#)

### Appendix B1. Intermediate Demand by Production Flow Stage Assignments

Stage 1	
BEA Code	BEA Title
113000	Forestry and logging
115000	Support activities for agriculture and forestry
211000	Oil and gas extraction
212100	Coal mining
212230	Copper, nickel, lead, and zinc mining
230301	Nonresidential maintenance and repair
311119	Other animal food manufacturing
321100	Sawmills and wood preservation
321910	Millwork
322110	Pulp mills
322130	Paperboard mills
323120	Support activities for printing
325110	Petrochemical manufacturing
325120	Industrial gas manufacturing
325130	Synthetic dye and pigment manufacturing
325180	Other Basic Inorganic Chemical Manufacturing
325320	Pesticide and other agricultural chemical manufacturing
325520	Adhesive manufacturing
325910	Printing ink manufacturing
326130	Laminated plastics plate, sheet (except packaging), and shape manufacturing
327400	Lime and gypsum product manufacturing
327992	Ground or treated mineral and earth manufacturing
331200	Steel product manufacturing from purchased steel
331313	Alumina refining and primary aluminum production
331314	Secondary smelting and alloying of aluminum
331410	Nonferrous Metal (except Aluminum) Smelting and Refining
331420	Copper rolling, drawing, extruding and alloying
331490	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding and alloying
332600	Spring and wire product manufacturing
332710	Machine shops
332800	Coating, engraving, heat treating and allied activities
334610	Manufacturing and reproducing magnetic and optical media
335991	Carbon and graphite product manufacturing
424700	Petroleum and petroleum products
425000	Wholesale electronic markets and agents and brokers
482000	Rail transportation
486000	Pipeline transportation
515200	Cable and other subscription programming
524200	Insurance agencies, brokerages, and related activities
532400	Commercial and industrial machinery and equipment rental and leasing
541100	Legal services
541200	Accounting, tax preparation, bookkeeping, and payroll services
541400	Specialized design services
541512	Computer systems design services
541610	Management consulting services
541800	Advertising, public relations, and related services
550000	Management of companies and enterprises
561100	Office administrative services
561300	Employment services
561400	Business support services
561600	Investigation and security services
561700	Services to buildings and dwellings
561900	Other support services
711200	Spectator sports
711500	Independent artists, writers, and performers
811300	Commercial and industrial machinery and equipment repair and maintenance
811400	Personal and household goods repair and maintenance
1111A0	Oilseed farming
2122A0	Iron, gold, silver, and other metal ore mining
2123A0	Other nonmetallic mineral mining and quarrying
48A000	Scenic and sightseeing transportation and support activities for transportation
52A000	Monetary authorities and depository credit intermediation
54151A	Other computer related services, including facilities management
5416A0	Environmental and other technical consulting services
5419A0	All other miscellaneous professional, scientific, and technical services
Stage 2	
BEA Code	BEA Title
111900	Other crop farming
112120	Dairy cattle and milk production

<b>Stage 1</b>	
<b>112300</b>	Poultry and egg production
<b>212310</b>	Stone mining and quarrying
<b>221100</b>	Electric power generation, transmission, and distribution
<b>221200</b>	Natural gas distribution
<b>311224</b>	Soybean and other oilseed processing
<b>313100</b>	Fiber, yarn, and thread mills
<b>313200</b>	Fabric mills
<b>313300</b>	Textile and fabric finishing and fabric coating mills
<b>321200</b>	Veneer, plywood, and engineered wood product manufacturing
<b>322120</b>	Paper mills
<b>322210</b>	Paperboard container manufacturing
<b>322220</b>	Paper Bag and Coated and Treated Paper Manufacturing
<b>322299</b>	All other converted paper product manufacturing
<b>323110</b>	Printing
<b>324110</b>	Petroleum refineries
<b>324190</b>	Other petroleum and coal products manufacturing
<b>325211</b>	Plastics material and resin manufacturing
<b>325310</b>	Fertilizer manufacturing
<b>325510</b>	Paint and coating manufacturing
<b>326110</b>	Plastics packaging materials and unlaminated film and sheet manufacturing
<b>326140</b>	Polystyrene foam product manufacturing
<b>327310</b>	Cement manufacturing
<b>327910</b>	Abrasive product manufacturing
<b>327993</b>	Mineral wool manufacturing
<b>331110</b>	Iron and steel mills and ferroalloy manufacturing
<b>331510</b>	Ferrous metal foundries
<b>331520</b>	Nonferrous metal foundries
<b>332114</b>	Custom roll forming
<b>332119</b>	Metal crown, closure, and other metal stamping (except automotive)
<b>332320</b>	Ornamental and architectural metal products manufacturing
<b>332500</b>	Hardware manufacturing
<b>332720</b>	Turned product and screw, nut, and bolt manufacturing
<b>332913</b>	Plumbing fixture fitting and trim manufacturing
<b>332991</b>	Ball and roller bearing manufacturing
<b>332996</b>	Fabricated pipe and pipe fitting manufacturing
<b>332999</b>	Other fabricated metal manufacturing
<b>333413</b>	Industrial and commercial fan and blower and air purification equipment manufacturing
<b>333612</b>	Speed changer, industrial high-speed drive, and gear manufacturing
<b>333613</b>	Mechanical power transmission equipment manufacturing
<b>334413</b>	Semiconductor and related device manufacturing
<b>334418</b>	Printed circuit assembly (electronic assembly) manufacturing
<b>334512</b>	Automatic environmental control manufacturing
<b>335920</b>	Communication and energy wire and cable manufacturing
<b>484000</b>	Truck transportation
<b>491000</b>	Postal service
<b>492000</b>	Couriers and messengers
<b>493000</b>	Warehousing and storage
<b>511110</b>	Newspaper publishers
<b>511120</b>	Periodical Publishers
<b>512100</b>	Motion picture and video industries
<b>515100</b>	Radio and television broadcasting
<b>519130</b>	Internet publishing and broadcasting and Web search portals
<b>533000</b>	Lessors of nonfinancial intangible assets
<b>541300</b>	Architectural, engineering, and related services
<b>561200</b>	Facilities support services
<b>562000</b>	Waste management and remediation services
<b>811200</b>	Electronic and precision equipment repair and maintenance
<b>1111B0</b>	Grain farming
<b>1121A0</b>	Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming
<b>112A00</b>	Animal production, except cattle and poultry and eggs
<b>3252A0</b>	Synthetic rubber and artificial and synthetic fibers and filaments manufacturing
<b>3259A0</b>	All other chemical product and preparation manufacturing
<b>33131B</b>	Aluminum product manufacturing from purchased aluminum
<b>33211A</b>	All other forging, stamping, and sintering
<b>33441A</b>	Other electronic component manufacturing
<b>423A00</b>	Other durable goods merchant wholesalers
<b>424A00</b>	Other nondurable goods merchant wholesalers
<b>5111A0</b>	Directory, mailing list, and other publishers
<b>522A00</b>	Nondepository credit intermediation and related activities
<b>5241XX</b>	Insurance carriers, except direct life
<b>5310RE</b>	Other real estate
<b>S00101</b>	Federal electric utilities
<b>S00102</b>	Other federal government enterprises
<b>S00202</b>	State and local government electric utilities
<b>Stage 3</b>	
<b>BEA Code</b>	BEA Title
<b>111300</b>	Fruit and tree nut farming
<b>111400</b>	Greenhouse, nursery, and floriculture production
<b>114000</b>	Fishing, hunting and trapping

Stage 1	
221300	Water, sewage and other systems
230302	Residential maintenance and repair
311210	Flour milling and malt manufacturing
311221	Wet corn milling
311225	Fats and oils refining and blending
311300	Sugar and confectionery product manufacturing
311513	Cheese manufacturing
311514	Dry, condensed, and evaporated dairy product manufacturing
311520	Ice cream and frozen dessert manufacturing
311615	Poultry processing
311700	Seafood product preparation and packaging
311920	Coffee and tea manufacturing
311930	Flavoring syrup and concentrate manufacturing
311940	Seasoning and dressing manufacturing
312140	Distilleries
314110	Carpet and rug mills
314120	Curtain and linen mills
314900	Other textile product mills
322230	Stationery product manufacturing
322291	Sanitary paper product manufacturing
324121	Asphalt paving mixture and block manufacturing
324122	Asphalt shingle and coating materials manufacturing
325190	Other basic organic chemical manufacturing
325411	Medicinal and botanical manufacturing
325413	In-vitro diagnostic substance manufacturing
325414	Biological product (except diagnostic) manufacturing
326120	Plastics pipe, pipe fitting, and unlaminated profile shape manufacturing
326150	Urethane and other foam product (except polystyrene) manufacturing
326160	Plastics bottle manufacturing
326190	Other plastics product manufacturing
326210	Tire manufacturing
326220	Rubber and plastics hoses and belting manufacturing
326290	Other rubber product manufacturing
327100	Clay product and refractory manufacturing
327200	Glass and glass product manufacturing
327320	Ready-mix concrete manufacturing
327330	Concrete pipe, brick, and block manufacturing
327390	Other concrete product manufacturing
327991	Cut stone and stone product manufacturing
327999	Miscellaneous nonmetallic mineral products
332200	Cutlery and handtool manufacturing
332310	Plate work and fabricated structural product manufacturing
332410	Power boiler and heat exchanger manufacturing
332420	Metal tank (heavy gauge) manufacturing
332430	Metal can, box, and other metal container (light gauge) manufacturing
333318	Other commercial and service industry machinery manufacturing
333414	Heating equipment (except warm air furnaces) manufacturing
333415	Air conditioning, refrigeration, and warm air heating equipment manufacturing
333618	Other engine equipment manufacturing
333993	Packaging machinery manufacturing
334118	Computer terminals and other computer peripheral equipment manufacturing
334210	Telephone apparatus manufacturing
334290	Other communications equipment manufacturing
334514	Totalizing fluid meter and counting device manufacturing
334515	Electricity and signal testing instruments manufacturing
335110	Electric lamp bulb and part manufacturing
335120	Lighting fixture manufacturing
335228	Other major household appliance manufacturing
335312	Motor and generator manufacturing
335313	Switchgear and switchboard apparatus manufacturing
335314	Relay and industrial control manufacturing
335911	Storage battery manufacturing
335930	Wiring device manufacturing
335999	All other miscellaneous electrical equipment and component manufacturing
336211	Motor vehicle body manufacturing
336310	Motor vehicle gasoline engine and engine parts manufacturing
336320	Motor vehicle electrical and electronic equipment manufacturing
336350	Motor vehicle transmission and power train parts manufacturing
336360	Motor vehicle seating and interior trim manufacturing
336370	Motor vehicle metal stamping
336390	Other Motor Vehicle Parts Manufacturing
336412	Aircraft engine and engine parts manufacturing
336413	Other aircraft parts and auxiliary equipment manufacturing
337110	Wood kitchen cabinet and countertop manufacturing
337215	Showcase, partition, shelving, and locker manufacturing
339112	Surgical and medical instrument manufacturing
339113	Surgical appliance and supplies manufacturing
339114	Dental equipment and supplies manufacturing
339116	Dental laboratories

Stage 1	
339940	Office supplies (except paper) manufacturing
339950	Sign manufacturing
339990	All other miscellaneous manufacturing
423100	Motor vehicle and motor vehicle parts and supplies
423400	Professional and commercial equipment and supplies
423600	Household appliances and electrical and electronic goods
423800	Machinery, equipment, and supplies
424200	Drugs and druggists'sundries
424400	Grocery and related product wholesalers
441000	Motor vehicle and parts dealers
444000	Building material and garden equipment and supplies dealers
481000	Air transportation
485000	Transit and ground passenger transportation
511200	Software publishers
512200	Sound recording industries
517110	Wired telecommunications carriers
517210	Wireless telecommunications carriers (except satellite)
518200	Data processing, hosting, and related services
523900	Other financial investment activities
532100	Automotive equipment rental and leasing
541511	Custom computer programming services
541920	Photographic services
561500	Travel arrangement and reservation services
621500	Medical and diagnostic laboratories
621900	Other ambulatory health care services
721000	Accommodation
812300	Dry-cleaning and laundry services
31151A	Fluid milk and butter manufacturing
31161A	Animal (except poultry) slaughtering, rendering, and processing
3219A0	All other wood product manufacturing
33291A	Valve and fittings other than plumbing
33351B	Cutting and machine tool accessory, rolling mill, and other metalworking machinery manufacturing
33399B	Fluid power process machinery
3363A0	Motor vehicle steering, suspension component (except spring), and brake systems manufacturing
33641A	Propulsion units and parts for space vehicles and guided missiles
33721A	Office furniture and custom architectural woodwork and millwork manufacturing
5191A0	News syndicates, libraries, archives and all other information services
523A00	Securities and commodity contracts intermediation and brokerage
532A00	General and consumer goods rental
711A00	Promoters of performing arts and sports and agents for public figures
722A00	All other food and drinking places
S00201	State and local government passenger transit
S00203	Other state and local government enterprises
Stage 4	
BEA Code	BEA Title
111200	Vegetable and melon farming
213111	Drilling oil and gas wells
233210	Health care structures
233230	Manufacturing structures
233240	Power and communication structures
233262	Educational and vocational structures
233411	Single-family residential structures
233412	Multifamily residential structures
311111	Dog and cat food manufacturing
311230	Breakfast cereal manufacturing
311410	Frozen food manufacturing
311420	Fruit and vegetable canning, pickling, and drying
311810	Bread and bakery product manufacturing
311910	Snack food manufacturing
311990	All other food manufacturing
312110	Soft drink and ice manufacturing
312120	Breweries
312130	Wineries
312200	Tobacco product manufacturing
315000	Apparel manufacturing
316000	Leather and allied product manufacturing
325412	Pharmaceutical preparation manufacturing
325610	Soap and cleaning compound manufacturing
325620	Toilet preparation manufacturing
333111	Farm machinery and equipment manufacturing
333112	Lawn and garden equipment manufacturing
333120	Construction machinery manufacturing
333130	Mining and oil and gas field machinery manufacturing
333242	Semiconductor machinery manufacturing
333314	Optical instrument and lens manufacturing
333316	Photographic and photocopying equipment manufacturing
333511	Industrial mold manufacturing
333514	Special tool, die, jig, and fixture manufacturing
333517	Machine tool manufacturing

<b>Stage 1</b>	
<b>333611</b>	Turbine and turbine generator set units manufacturing
<b>333912</b>	Air and gas compressor manufacturing
<b>333920</b>	Material handling equipment manufacturing
<b>333991</b>	Power-driven handtool manufacturing
<b>333994</b>	Industrial process furnace and oven manufacturing
<b>334111</b>	Electronic computer manufacturing
<b>334112</b>	Computer storage device manufacturing
<b>334220</b>	Broadcast and wireless communications equipment
<b>334300</b>	Audio and video equipment manufacturing
<b>334510</b>	Electromedical and electrotherapeutic apparatus manufacturing
<b>334511</b>	Search, detection, and navigation instruments manufacturing
<b>334513</b>	Industrial process variable instruments manufacturing
<b>334516</b>	Analytical laboratory instrument manufacturing
<b>334517</b>	Irradiation apparatus manufacturing
<b>335210</b>	Small electrical appliance manufacturing
<b>335221</b>	Household cooking appliance manufacturing
<b>335222</b>	Household refrigerator and home freezer manufacturing
<b>335224</b>	Household laundry equipment manufacturing
<b>335311</b>	Power, distribution, and specialty transformer manufacturing
<b>335912</b>	Primary battery manufacturing
<b>336111</b>	Automobile manufacturing
<b>336112</b>	Light truck and utility vehicle manufacturing
<b>336120</b>	Heavy duty truck manufacturing
<b>336212</b>	Truck trailer manufacturing
<b>336213</b>	Motor home manufacturing
<b>336214</b>	Travel trailer and camper manufacturing
<b>336411</b>	Aircraft manufacturing
<b>336414</b>	Guided missile and space vehicle manufacturing
<b>336500</b>	Railroad rolling stock manufacturing
<b>336611</b>	Ship building and repairing
<b>336612</b>	Boat building
<b>336991</b>	Motorcycle, bicycle, and parts manufacturing
<b>336992</b>	Military armored vehicle, tank, and tank component manufacturing
<b>336999</b>	All other transportation equipment manufacturing
<b>337121</b>	Upholstered household furniture manufacturing
<b>337122</b>	Nonupholstered wood household furniture manufacturing
<b>337127</b>	Institutional furniture manufacturing
<b>337900</b>	Other furniture related product manufacturing
<b>339115</b>	Ophthalmic goods manufacturing
<b>339910</b>	Jewelry and silverware manufacturing
<b>339920</b>	Sporting and athletic goods manufacturing
<b>339930</b>	Doll, toy, and game manufacturing
<b>445000</b>	Food and beverage stores
<b>446000</b>	Health and personal care stores
<b>447000</b>	Gasoline stations
<b>448000</b>	Clothing and clothing accessories stores
<b>452000</b>	General merchandise stores
<b>454000</b>	Nonstore retailers
<b>483000</b>	Water transportation
<b>511130</b>	Book publishers
<b>524113</b>	Direct life insurance carriers
<b>525000</b>	Funds, trusts, and other financial vehicles
<b>541700</b>	Scientific research and development services
<b>541940</b>	Veterinary services
<b>611100</b>	Elementary and secondary schools
<b>621100</b>	Offices of physicians
<b>621200</b>	Offices of dentists
<b>621300</b>	Offices of other health practitioners
<b>621400</b>	Outpatient care centers
<b>621600</b>	Home health care services
<b>622000</b>	Hospitals
<b>624100</b>	Individual and family services
<b>624400</b>	Child day care services
<b>711100</b>	Performing arts companies
<b>712000</b>	Museums, historical sites, zoos, and parks
<b>713100</b>	Amusement parks and arcades
<b>713200</b>	Gambling industries (except casino hotels)
<b>713900</b>	Other amusement and recreation industries
<b>722110</b>	Full-service restaurants
<b>722211</b>	Limited-service restaurants
<b>811100</b>	Automotive repair and maintenance
<b>812100</b>	Personal care services
<b>812200</b>	Death care services
<b>812900</b>	Other personal services
<b>813100</b>	Religious organizations
<b>814000</b>	Private households
<b>21311A</b>	Other support activities for mining
<b>2332A0</b>	Office and commercial structures
<b>2332C0</b>	Transportation structures and highways and streets

Stage 1	
2332D0	Other nonresidential structures
2334A0	Other residential structures
3118A0	Cookie, cracker, pasta, and tortilla manufacturing
33299A	Ammunition, arms, ordnance, and accessories manufacturing
33329A	Other industrial machinery manufacturing
33391A	Pump and pumping equipment manufacturing
33399A	Other general purpose machinery manufacturing
33451A	Watch, clock, and other measuring and controlling device manufacturing
33712N	Other household nonupholstered furniture
4B0000	All other retail
517A00	Satellite, telecommunications resellers, and all other telecommunications
531HSO	Owner-occupied housing
531HST	Tenant-occupied housing
611A00	Junior colleges, colleges, universities, and professional schools
611B00	Other educational services
623A00	Nursing and community care facilities
623B00	Residential mental health, substance abuse, and other residential care facilities
624A00	Community food, housing, and other relief services, including rehabilitation services
813A00	Grantmaking, giving, and social advocacy organizations
813B00	Civic, social, professional, and similar organizations

To examine industry shifts resulting from the FD-ID allocations update, the following table compares industry stage assignments, based 2007 I-O data, with the current assignments, based on 2012 I-O data.

[Skip Table »](#)

**Table B2. 2012 Versus 2007 Stage Assignments for Comparable Industries**

BEA Code	BEA Industry	2012 Assignment	2007 Assignment
1111A0	Oilseed farming	1	1
1111B0	Grain farming	2	3
111200	Vegetable and melon farming	4	4
111300	Fruit and tree nut farming	3	3
111400	Greenhouse, nursery, and floriculture production	3	3
111900	Other crop farming	2	2
112120	Dairy cattle and milk production	2	2
1121A0	Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	2	2
112300	Poultry and egg production	2	2
112A00	Animal production, except cattle and poultry and eggs	2	2
113000	Forestry and logging	1	1
114000	Fishing, hunting and trapping	3	3
115000	Support activities for agriculture and forestry	1	1
211000	Oil and gas extraction	1	1
212100	Coal mining	1	1
212230	Copper, nickel, lead, and zinc mining	1	1
2122A0	Iron, gold, silver, and other metal ore mining	1	1
212310	Stone mining and quarrying	2	2
2123A0	Other nonmetallic mineral mining and quarrying	1	2
213111	Drilling oil and gas wells	4	4
21311A	Other support activities for mining	4	4
221100	Electric power generation, transmission, and distribution	2	2
221200	Natural gas distribution	2	2
221300	Water, sewage and other systems	3	3
230301	Nonresidential maintenance and repair	1	1
230302	Residential maintenance and repair	3	3
233210	Health care structures	4	4
233230	Manufacturing structures	4	4
233240	Power and communication structures	4	4
233262	Educational and vocational structures	4	4
2332A0	Office and commercial structures	4	4
2332C0	Transportation structures and highways and streets	4	NA
2332D0	Other nonresidential structures	4	NA
233411	Single-family residential structures	4	4
233412	Multifamily residential structures	4	4
2334A0	Other residential structures	4	4
311111	Dog and cat food manufacturing	4	4
311119	Other animal food manufacturing	1	1
311210	Flour milling and malt manufacturing	3	3
311221	Wet corn milling	3	2
311224	Soybean and other oilseed processing	2	NA
311225	Fats and oils refining and blending	3	2
311230	Breakfast cereal manufacturing	4	4
311300	Sugar and confectionery product manufacturing	3	3
311410	Frozen food manufacturing	4	4
311420	Fruit and vegetable canning, pickling, and drying	4	4
311513	Cheese manufacturing	3	3
311514	Dry, condensed, and evaporated dairy product manufacturing	3	3
31151A	Fluid milk and butter manufacturing	3	3
311520	Ice cream and frozen dessert manufacturing	3	3
311615	Poultry processing	3	3

BEA Code	BEA Industry	2012 Assignment	2007 Assignment
31161A	Animal (except poultry) slaughtering, rendering, and processing	3	3
311700	Seafood product preparation and packaging	3	3
311810	Bread and bakery product manufacturing	4	4
3118A0	Cookie, cracker, pasta, and tortilla manufacturing	4	4
311910	Snack food manufacturing	4	4
311920	Coffee and tea manufacturing	3	3
311930	Flavoring syrup and concentrate manufacturing	3	3
311940	Seasoning and dressing manufacturing	3	3
311990	All other food manufacturing	4	4
312110	Soft drink and ice manufacturing	4	4
312120	Breweries	4	4
312130	Wineries	4	4
312140	Distilleries	3	3
312200	Tobacco product manufacturing	4	4
313100	Fiber, yarn, and thread mills	2	2
313200	Fabric mills	2	2
313300	Textile and fabric finishing and fabric coating mills	2	2
314110	Carpet and rug mills	3	4
314120	Curtain and linen mills	3	4
314900	Other textile product mills	3	2
315000	Apparel manufacturing	4	4
316000	Leather and allied product manufacturing	4	4
321100	Sawmills and wood preservation	1	1
321200	Veneer, plywood, and engineered wood product manufacturing	2	2
321910	Millwork	1	2
3219A0	All other wood product manufacturing	3	2
322110	Pulp mills	1	1
322120	Paper mills	2	3
322130	Paperboard mills	1	1
322210	Paperboard container manufacturing	2	2
322220	Paper Bag and Coated and Treated Paper Manufacturing	2	2
322230	Stationery product manufacturing	3	3
322291	Sanitary paper product manufacturing	3	3
322299	All other converted paper product manufacturing	2	2
323110	Printing	2	1
323120	Support activities for printing	1	1
324110	Petroleum refineries	2	2
324121	Asphalt paving mixture and block manufacturing	3	3
324122	Asphalt shingle and coating materials manufacturing	3	3
324190	Other petroleum and coal products manufacturing	2	2
325110	Petrochemical manufacturing	1	1
325120	Industrial gas manufacturing	1	1
325130	Synthetic dye and pigment manufacturing	1	1
325180	Other Basic Inorganic Chemical Manufacturing	1	1
325190	Other basic organic chemical manufacturing	3	3
325211	Plastics material and resin manufacturing	2	1
3252A0	Synthetic rubber and artificial and synthetic fibers and filaments manufacturing	2	2
325310	Fertilizer manufacturing	2	1
325320	Pesticide and other agricultural chemical manufacturing	1	1
325411	Medicinal and botanical manufacturing	3	3
325412	Pharmaceutical preparation manufacturing	4	4
325413	In-vitro diagnostic substance manufacturing	3	3
325414	Biological product (except diagnostic) manufacturing	3	3
325510	Paint and coating manufacturing	2	2
325520	Adhesive manufacturing	1	1
325610	Soap and cleaning compound manufacturing	4	2
325620	Toilet preparation manufacturing	4	4
325910	Printing ink manufacturing	1	1
3259A0	All other chemical product and preparation manufacturing	2	3
326110	Plastics packaging materials and unlaminated film and sheet manufacturing	2	2
326120	Plastics pipe, pipe fitting, and unlaminated profile shape manufacturing	3	2
326130	Laminated plastics plate, sheet (except packaging), and shape manufacturing	1	1
326140	Polystyrene foam product manufacturing	2	2
326150	Urethane and other foam product (except polystyrene) manufacturing	3	3
326160	Plastics bottle manufacturing	3	2
326190	Other plastics product manufacturing	3	2
326210	Tire manufacturing	3	3
326220	Rubber and plastics hoses and belting manufacturing	3	2
326290	Other rubber product manufacturing	3	2
327100	Clay product and refractory manufacturing	3	2
327200	Glass and glass product manufacturing	3	2
327310	Cement manufacturing	2	2
327320	Ready-mix concrete manufacturing	3	3
327330	Concrete pipe, brick, and block manufacturing	3	3
327390	Other concrete product manufacturing	3	3
327400	Lime and gypsum product manufacturing	1	2
327910	Abrasive product manufacturing	2	2
327991	Cut stone and stone product manufacturing	3	3
327992	Ground or treated mineral and earth manufacturing	1	1

BEA Code	BEA Industry	2012 Assignment	2007 Assignment
327993	Mineral wool manufacturing	2	2
327999	Miscellaneous nonmetallic mineral products	3	2
331110	Iron and steel mills and ferroalloy manufacturing	2	1
331200	Steel product manufacturing from purchased steel	1	1
331313	Alumina refining and primary aluminum production	1	NA
331314	Secondary smelting and alloying of aluminum	1	1
33131B	Aluminum product manufacturing from purchased aluminum	2	1
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	1	NA
331420	Copper rolling, drawing, extruding and alloying	1	1
331490	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding and alloying	1	1
331510	Ferrous metal foundries	2	2
331520	Nonferrous metal foundries	2	2
332114	Custom roll forming	2	2
332119	Metal crown, closure, and other metal stamping (except automotive)	2	NA
33211A	All other forging, stamping, and sintering	2	2
332200	Cutlery and handtool manufacturing	3	2
332310	Plate work and fabricated structural product manufacturing	3	2
332320	Ornamental and architectural metal products manufacturing	2	2
332410	Power boiler and heat exchanger manufacturing	3	3
332420	Metal tank (heavy gauge) manufacturing	3	3
332430	Metal can, box, and other metal container (light gauge) manufacturing	3	2
332500	Hardware manufacturing	2	2
332600	Spring and wire product manufacturing	1	2
332710	Machine shops	1	1
332720	Turned product and screw, nut, and bolt manufacturing	2	2
332800	Coating, engraving, heat treating and allied activities	1	1
332913	Plumbing fixture fitting and trim manufacturing	2	3
33291A	Valve and fittings other than plumbing	3	2
332991	Ball and roller bearing manufacturing	2	2
332996	Fabricated pipe and pipe fitting manufacturing	2	2
332999	Other fabricated metal manufacturing	2	NA
33299A	Ammunition, arms, ordnance, and accessories manufacturing	4	4
333111	Farm machinery and equipment manufacturing	4	4
333112	Lawn and garden equipment manufacturing	4	4
333120	Construction machinery manufacturing	4	4
333130	Mining and oil and gas field machinery manufacturing	4	4
333242	Semiconductor machinery manufacturing	4	NA
33329A	Other industrial machinery manufacturing	4	4
333314	Optical instrument and lens manufacturing	4	4
333316	Photographic and photocopying equipment manufacturing	4	NA
333318	Other commercial and service industry machinery manufacturing	3	NA
333413	Industrial and commercial fan and blower and air purification equipment manufacturing	2	NA
333414	Heating equipment (except warm air furnaces) manufacturing	3	3
333415	Air conditioning, refrigeration, and warm air heating equipment manufacturing	3	3
333511	Industrial mold manufacturing	4	4
333514	Special tool, die, jig, and fixture manufacturing	4	4
333517	Machine tool manufacturing	4	NA
33351B	Cutting and machine tool accessory, rolling mill, and other metalworking machinery manufacturing	3	2
333611	Turbine and turbine generator set units manufacturing	4	4
333612	Speed changer, industrial high-speed drive, and gear manufacturing	2	2
333613	Mechanical power transmission equipment manufacturing	2	2
333618	Other engine equipment manufacturing	3	3
333912	Air and gas compressor manufacturing	4	3
33391A	Pump and pumping equipment manufacturing	4	3
333920	Material handling equipment manufacturing	4	3
333991	Power-driven handtool manufacturing	4	4
333993	Packaging machinery manufacturing	3	4
333994	Industrial process furnace and oven manufacturing	4	4
33399A	Other general purpose machinery manufacturing	4	4
33399B	Fluid power process machinery	3	2
334111	Electronic computer manufacturing	4	4
334112	Computer storage device manufacturing	4	3
334118	Computer terminals and other computer peripheral equipment manufacturing	3	NA
334210	Telephone apparatus manufacturing	3	2
334220	Broadcast and wireless communications equipment	4	4
334290	Other communications equipment manufacturing	3	3
334300	Audio and video equipment manufacturing	4	4
334413	Semiconductor and related device manufacturing	2	2
334418	Printed circuit assembly (electronic assembly) manufacturing	2	2
33441A	Other electronic component manufacturing	2	2
334510	Electromedical and electrotherapeutic apparatus manufacturing	4	4
334511	Search, detection, and navigation instruments manufacturing	4	4
334512	Automatic environmental control manufacturing	2	3
334513	Industrial process variable instruments manufacturing	4	4
334514	Totalizing fluid meter and counting device manufacturing	3	3
334515	Electricity and signal testing instruments manufacturing	3	4
334516	Analytical laboratory instrument manufacturing	4	4
334517	Irradiation apparatus manufacturing	4	4
33451A	Watch, clock, and other measuring and controlling device manufacturing	4	4

BEA Code	BEA Industry	2012 Assignment	2007 Assignment
334610	Manufacturing and reproducing magnetic and optical media	1	1
335110	Electric lamp bulb and part manufacturing	3	3
335120	Lighting fixture manufacturing	3	3
335210	Small electrical appliance manufacturing	4	4
335221	Household cooking appliance manufacturing	4	4
335222	Household refrigerator and home freezer manufacturing	4	4
335224	Household laundry equipment manufacturing	4	4
335228	Other major household appliance manufacturing	3	3
335311	Power, distribution, and specialty transformer manufacturing	4	3
335312	Motor and generator manufacturing	3	2
335313	Switchgear and switchboard apparatus manufacturing	3	3
335314	Relay and industrial control manufacturing	3	2
335911	Storage battery manufacturing	3	2
335912	Primary battery manufacturing	4	4
335920	Communication and energy wire and cable manufacturing	2	2
335930	Wiring device manufacturing	3	3
335991	Carbon and graphite product manufacturing	1	1
335999	All other miscellaneous electrical equipment and component manufacturing	3	4
336111	Automobile manufacturing	4	4
336112	Light truck and utility vehicle manufacturing	4	4
336120	Heavy duty truck manufacturing	4	4
336211	Motor vehicle body manufacturing	3	3
336212	Truck trailer manufacturing	4	4
336213	Motor home manufacturing	4	4
336214	Travel trailer and camper manufacturing	4	4
336310	Motor vehicle gasoline engine and engine parts manufacturing	3	3
336320	Motor vehicle electrical and electronic equipment manufacturing	3	2
336350	Motor vehicle transmission and power train parts manufacturing	3	3
336360	Motor vehicle seating and interior trim manufacturing	3	3
336370	Motor vehicle metal stamping	3	3
336390	Other Motor Vehicle Parts Manufacturing	3	3
3363A0	Motor vehicle steering, suspension component (except spring), and brake systems manufacturing	3	3
336411	Aircraft manufacturing	4	4
336412	Aircraft engine and engine parts manufacturing	3	3
336413	Other aircraft parts and auxiliary equipment manufacturing	3	3
336414	Guided missile and space vehicle manufacturing	4	4
33641A	Propulsion units and parts for space vehicles and guided missiles	3	3
336500	Railroad rolling stock manufacturing	4	3
336611	Ship building and repairing	4	4
336612	Boat building	4	4
336991	Motorcycle, bicycle, and parts manufacturing	4	4
336992	Military armored vehicle, tank, and tank component manufacturing	4	2
336999	All other transportation equipment manufacturing	4	4
337110	Wood kitchen cabinet and countertop manufacturing	3	3
337121	Upholstered household furniture manufacturing	4	4
337122	Nonupholstered wood household furniture manufacturing	4	4
337127	Institutional furniture manufacturing	4	4
33712N	Other household nonupholstered furniture	4	NA
337215	Showcase, partition, shelving, and locker manufacturing	3	3
33721A	Office furniture and custom architectural woodwork and millwork manufacturing	3	3
337900	Other furniture related product manufacturing	4	4
339112	Surgical and medical instrument manufacturing	3	3
339113	Surgical appliance and supplies manufacturing	3	3
339114	Dental equipment and supplies manufacturing	3	3
339115	Ophthalmic goods manufacturing	4	4
339116	Dental laboratories	3	3
339910	Jewelry and silverware manufacturing	4	4
339920	Sporting and athletic goods manufacturing	4	4
339930	Doll, toy, and game manufacturing	4	4
339940	Office supplies (except paper) manufacturing	3	3
339950	Sign manufacturing	3	3
339990	All other miscellaneous manufacturing	3	3
423100	Motor vehicle and motor vehicle parts and supplies	3	NA
423400	Professional and commercial equipment and supplies	3	NA
423600	Household appliances and electrical and electronic goods	3	NA
423800	Machinery, equipment, and supplies	3	NA
423A00	Other durable goods merchant wholesalers	2	NA
424200	Drugs and druggists'sundries	3	NA
424400	Grocery and related product wholesalers	3	NA
424700	Petroleum and petroleum products	1	NA
424A00	Other nondurable goods merchant wholesalers	2	NA
425000	Wholesale electronic markets and agents and brokers	1	NA
441000	Motor vehicle and parts dealers	3	4
444000	Building material and garden equipment and supplies dealers	3	NA
445000	Food and beverage stores	4	4
446000	Health and personal care stores	4	NA
447000	Gasoline stations	4	NA
448000	Clothing and clothing accessories stores	4	NA
452000	General merchandise stores	4	4

BEA Code	BEA Industry	2012 Assignment	2007 Assignment
454000	Nonstore retailers	4	NA
481000	Air transportation	3	3
482000	Rail transportation	1	1
483000	Water transportation	4	3
484000	Truck transportation	2	3
485000	Transit and ground passenger transportation	3	3
486000	Pipeline transportation	1	1
48A000	Scenic and sightseeing transportation and support activities for transportation	1	1
491000	Postal service	2	1
492000	Couriers and messengers	2	1
493000	Warehousing and storage	2	1
4B0000	All other retail	4	NA
511110	Newspaper publishers	2	1
511120	Periodical Publishers	2	2
511130	Book publishers	4	4
5111A0	Directory, mailing list, and other publishers	2	1
511200	Software publishers	3	4
512100	Motion picture and video industries	2	2
512200	Sound recording industries	3	3
515100	Radio and television broadcasting	2	1
515200	Cable and other subscription programming	1	1
517110	Wired telecommunications carriers	3	2
517210	Wireless telecommunications carriers (except satellite)	3	3
517A00	Satellite, telecommunications resellers, and all other telecommunications	4	2
518200	Data processing, hosting, and related services	3	1
519130	Internet publishing and broadcasting and Web search portals	2	1
5191A0	News syndicates, libraries, archives and all other information services	3	3
522A00	Nondepository credit intermediation and related activities	2	2
523900	Other financial investment activities	3	3
523A00	Securities and commodity contracts intermediation and brokerage	3	1
524113	Direct life insurance carriers	4	NA
5241XX	Insurance carriers, except direct life	2	NA
524200	Insurance agencies, brokerages, and related activities	1	1
525000	Funds, trusts, and other financial vehicles	4	4
52A000	Monetary authorities and depository credit intermediation	1	2
531HSO	Owner-occupied housing	4	NA
531HST	Tenant-occupied housing	4	NA
531ORE	Other real estate	2	NA
532100	Automotive equipment rental and leasing	3	2
532400	Commercial and industrial machinery and equipment rental and leasing	1	1
532A00	General and consumer goods rental	3	3
533000	Lessors of nonfinancial intangible assets	2	1
541100	Legal services	1	1
541200	Accounting, tax preparation, bookkeeping, and payroll services	1	1
541300	Architectural, engineering, and related services	2	2
541400	Specialized design services	1	1
541511	Custom computer programming services	3	4
541512	Computer systems design services	1	2
54151A	Other computer related services, including facilities management	1	1
541610	Management consulting services	1	1
5416A0	Environmental and other technical consulting services	1	1
541700	Scientific research and development services	4	4
541800	Advertising, public relations, and related services	1	1
541920	Photographic services	3	3
541940	Veterinary services	4	4
5419A0	All other miscellaneous professional, scientific, and technical services	1	1
550000	Management of companies and enterprises	1	1
561100	Office administrative services	1	1
561200	Facilities support services	2	1
561300	Employment services	1	1
561400	Business support services	1	1
561500	Travel arrangement and reservation services	3	2
561600	Investigation and security services	1	1
561700	Services to buildings and dwellings	1	1
561900	Other support services	1	1
562000	Waste management and remediation services	2	2
611100	Elementary and secondary schools	4	4
611A00	Junior colleges, colleges, universities, and professional schools	4	4
611B00	Other educational services	4	4
621100	Offices of physicians	4	4
621200	Offices of dentists	4	4
621300	Offices of other health practitioners	4	4
621400	Outpatient care centers	4	4
621500	Medical and diagnostic laboratories	3	4
621600	Home health care services	4	4
621900	Other ambulatory health care services	3	3
622000	Hospitals	4	4
623A00	Nursing and community care facilities	4	4
623B00	Residential mental health, substance abuse, and other residential care facilities	4	4

BEA Code	BEA Industry	2012 Assignment	2007 Assignment
624100	Individual and family services	4	4
624400	Child day care services	4	4
624A00	Community food, housing, and other relief services, including rehabilitation services	4	4
711100	Performing arts companies	4	4
711200	Spectator sports	1	1
711500	Independent artists, writers, and performers	1	1
711A00	Promoters of performing arts and sports and agents for public figures	3	2
712000	Museums, historical sites, zoos, and parks	4	4
713100	Amusement parks and arcades	4	4
713200	Gambling industries (except casino hotels)	4	4
713900	Other amusement and recreation industries	4	4
721000	Accommodation	3	4
722110	Full-service restaurants	4	4
722211	Limited-service restaurants	4	4
722A00	All other food and drinking places	3	4
811100	Automotive repair and maintenance	4	4
811200	Electronic and precision equipment repair and maintenance	2	2
811300	Commercial and industrial machinery and equipment repair and maintenance	1	1
811400	Personal and household goods repair and maintenance	1	2
812100	Personal care services	4	4
812200	Death care services	4	4
812300	Dry-cleaning and laundry services	3	3
812900	Other personal services	4	4
813100	Religious organizations	4	4
813A00	Grantmaking, giving, and social advocacy organizations	4	4
813B00	Civic, social, professional, and similar organizations	4	1
814000	Private households	4	4
S00101	Federal electric utilities	2	2
S00102	Other federal government enterprises	2	2
S00201	State and local government passenger transit	3	3
S00202	State and local government electric utilities	2	2
S00203	Other state and local government enterprises	3	3

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## Footnotes

[1] For a detailed description of the FD-ID system as well as other information pertaining to the system, please visit <https://www.bls.gov/ppi/fd-id/ppi-final-demand-intermediate-demand-aggregation-system.htm>. [↩](#)

[2] This table is found in Benchmark Input-Output Accounts of the United States, 2012, published by BEA at <https://www.bea.gov/industry/input-output-accounts-data>. [↩](#)

[3] In many cases, the same commodity is purchased by different buyer types, so commodities are often included in several FD-ID indexes. For example, regular gasoline is purchased for personal consumption, export, government use, and business use. The PPI program publishes only one commodity index for regular gasoline, reflecting sales to all types of buyers. It is this index that is used in all FD-ID aggregations, regardless of whether the gasoline is sold for personal consumption, as an export, to government, or to businesses, with differences accounted for in the applicable weights to each aggregate FD or ID index. In some cases, buyer type is an important price determining characteristic and results in commodity indexes being created on that basis. For example, within the PPI category for loan services, separate indexes for consumer loans and business loans were constructed. In this case, the commodity index for consumer loans would be included in the final-demand index, and the commodity index for business loans would fall under intermediate demand. [↩](#)

[4] For a detailed description of the methodology used to develop the PPI production flow model, see <http://www.bls.gov/ppi/fd-id/2002-bea-data-analysis-for-the-development-of-the-experimental-ppi-aggregation-system.pdf>. [↩](#)

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