Appendix A- Inventory of Freight Data Sources

Disclaimer

Due to the large amount of content relating to the identified freight databases, this document provides merely a snapshot of information about each database to guide users on where to find information. Readers are advised to refer to the original source for additional materials and content that may have been excluded from this document.

Some of the information provided may also be outdated. Readers are encouraged to visit the S.H.I.F.T. website for more recent updates.

Database descriptions and related information are taken directly from source to ensure consistency between information being reported in the dictionary and information provided by the original source. Sentences and paragraphs may be rephrased to improve clarity. References and links to all databases are provided to assist users in identifying the location of the original source of information.

Database descriptions and related information taken directly from the source are formatted thusly to distinguish those paragraphs from original text.
A 1. Air Carrier Statistics

Overview

The Air Carrier Statistics database contains domestic and international air carrier traffic information of certificated U.S. air carriers and foreign air carriers having at least one point of service in the United States or one of its territories. Also known as the T-100 data bank, U.S. air carriers report monthly air carrier traffic information using Form T-100 and foreign carriers report monthly air carrier traffic information using Form T-100(f).1

Coverage

Large certificated carriers holding Certificates of Public Convenience and Necessity issued by the U.S. Department of Transportation authorizing the performance of air transportation with annual operating revenues of $20 million or more.1

Availability

First Year: 1990
Last Year: Current
Frequency: Monthly
Pre-1990 data exists in Air Carrier Summary Data.2

Uses

1. To determine air traffic patterns
2. To determine carrier market shares
3. To determine passenger, freight, and mail cargo flow by air1

Data Tables

Two parent traffic databases are available on the TranStats website - Air Carrier Statistics Form 41 Traffic (U.S. Carriers Only) and Air Carrier Statistics Form 41 Traffic (All Carriers). The difference between the two databases is that one contains information on only U.S. certificated air carriers and the other contains information on both U.S. and foreign certificated air carriers. Each database contains six T-100 tables providing air traffic data.

In market data, a passenger, freight, and/or mail is “enplaned” and counted only once from origin to destination as long as he/she/it remains on the same flight number. If the flight number changes a new market begins. In segment data, a passenger or air cargo is counted for each leg of the trip from origin to destination. Therefore, the numbers in the segment data will tend to be higher than those in the market data.

(except for international flights).³

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Carrier Statistics (Form 41 Traffic) – U.S. Carriers</strong></td>
<td></td>
</tr>
<tr>
<td>These tables in this database provide domestic market, domestic non-stop segment, international market, international non-stop segment, combined table for domestic and international market, and combined table for domestic and international non-stop segment data reported by certificated U.S. air carriers.</td>
<td></td>
</tr>
<tr>
<td>1. T-100 Domestic Market (U.S. Carriers)</td>
<td>1990 – current</td>
</tr>
<tr>
<td>2. T-100 Domestic Segment (U.S. Carriers)</td>
<td>1990 – current</td>
</tr>
<tr>
<td>3. T-100 International Market (U.S. Carriers Only)</td>
<td>1990 – current</td>
</tr>
<tr>
<td>4. T-100 International Segment (U.S. Carriers Only)</td>
<td>1990 – current</td>
</tr>
<tr>
<td>5. T-100 Combined Market (U.S. Carriers Only)</td>
<td>1990 – current</td>
</tr>
<tr>
<td>6. T-100 Combined Segment (U.S. Carriers Only)</td>
<td>1990 – current</td>
</tr>
<tr>
<td><strong>Air Carrier Statistics (Form 41 Traffic) – All Carriers</strong></td>
<td></td>
</tr>
<tr>
<td>These tables in this database provide domestic market, domestic non-stop segment, international market, international non-stop segment, combined table for domestic and international market, and combined table for domestic and international non-stop segment data reported by certificated U.S. air and foreign carriers.</td>
<td></td>
</tr>
<tr>
<td>7. T-100 Domestic Market (All Carriers)</td>
<td>1990 – current</td>
</tr>
<tr>
<td>8. T-100 Domestic Segment (All Carriers)</td>
<td>1990 – current</td>
</tr>
<tr>
<td>9. T-100 International Market (All Carriers)</td>
<td>1990 – current</td>
</tr>
<tr>
<td>10. T-100 International Segment (All Carriers)</td>
<td>1990 – current</td>
</tr>
<tr>
<td>11. T-100 Combined Market (All Carriers)</td>
<td>1990 – current</td>
</tr>
<tr>
<td>12. T-100 Combined Segment (All Carriers)</td>
<td>1990 – current</td>
</tr>
</tbody>
</table>

Data Collection Methods and Limitations

According to 14 CFR 241.21, large certificated air carrier subject to the Federal Aviation Act of 1958 are required to file with the BTS, monthly, quarterly, semiannually, and annually BTS Form 41 Reports of financial and operating statistics unless waiver has been made by the Civil Aeronautics Board.⁴

Additional information on data collection and reporting is available in Title 14 Chapter 11 Subchapter A Part 241.⁵

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⁵ http://www.law.cornell.edu/cfr/text/14/241
References

- Website
  - http://www.transtats.bts.gov/DATABASES.ASP?Mode_ID=1

- Data Dictionaries and Glossary Terms
  - Data dictionaries and field definitions are available for each table
  - TranStats Glossary
    http://www.transtats.bts.gov/DATABASES.ASP?Mode_ID=1

- Related Publications
  - Uniform System Of Accounts and Reports for Large Certificated Air Carriers
    http://www.law.cornell.edu/cfr/text/14/241
  - Frequently Asked Questions
    https://ntl.custhelp.com/app/answers/detail/a_id/398

Data Provider and Contact

Data Provider Agency: U.S. Department of Transportation
Research and Innovative Technology Administration
Bureau of Transportation Statistics

Contact: Office of Airline Information
BTS TranStats Customer Support
Phone: (800) 853-1351
Email: ritainfo@dot.gov
A 2. Annual Survey of Manufacturers

Overview

The Annual Survey of Manufacturers (ASM) is the key intercensal measure of manufacturing activity, products, and location for the public and private sectors. The ASM provides the best current measure of current U.S. manufacturing industry outputs, inputs, and operating status, and is the primary basis for updates of the Longitudinal Research Database (LRD). Census Bureau staff and academic researchers with sworn agent status use the LRD for micro data analysis.\(^6\)

ASM provides statistics on employment, payroll, worker hours, payroll supplements, cost of materials, selected operating expenses, value added by manufacturing, capital expenditures, inventories, and energy consumption. It also provides estimates of value of shipments for 1,384 classes of manufactured products.\(^6\)

Coverage

Manufacturing establishments with one or more paid employees or non-employers that use leased employees for manufacturing are classified in North American Industry Classification System (NAICS) sectors 31–33.\(^6\)

Availability

First Year: 2005
Last Year: 2010
Frequency: Conducted annually, except for years ending in 2 and 7, at which time ASM statistics are included in the manufacturing sector of the Economic Census.

Uses\(^6\)

1. The Bureau of Economic Analysis uses ASM data to prepare annual updates of the gross national product (GNP) and GNP weight deflators, the annual input-output tables, and the private inventories and producer’s equipment and software components of the gross domestic product (GDP).

2. The Bureau of Labor Statistics uses ASM data to calculate annual productivity series, update producer price indexes, and calculate weights when new components are added.

3. The Federal Reserve Board uses ASM data to prepare the Index of Industrial Production.

4. The International Trade Administration designs and evaluates the export development program and evaluates and forecasts future industrial activity.

5. The Census Bureau benchmarks current data on manufacturing shipments and inventories.

6. State and local agencies use ASM data for economic policymaking and forecasting.

Data Tables

The ASM data is provided by the U.S. Census Bureau in four datasets, each of which is available for download on the American FactFinder system.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>This file represents total manufacturing establishments’ statistics at</td>
<td></td>
</tr>
<tr>
<td>the three-, four-, five-, and six-digit NAICS levels at the national</td>
<td></td>
</tr>
<tr>
<td>level.</td>
<td></td>
</tr>
<tr>
<td>This file represents shipments statistics for the 471 six-digit NAICS</td>
<td></td>
</tr>
<tr>
<td>product groups and approximately 1,384 seven-digit NAICS product classes</td>
<td></td>
</tr>
<tr>
<td>at the national level.</td>
<td></td>
</tr>
<tr>
<td>This file represents manufacturing establishments’ statistics at the</td>
<td></td>
</tr>
<tr>
<td>three- and four-digit NAICS levels for each state.</td>
<td></td>
</tr>
<tr>
<td>States and States</td>
<td></td>
</tr>
<tr>
<td>This file represents supplemental manufacturing establishments’ statistics at the two-digit NAICS levels for each state and contains additional fields such as total end of year inventories, finished goods inventories, and materials and supplies inventories not found in the Statistics for All Manufacturing by State.</td>
<td></td>
</tr>
</tbody>
</table>

Data Collection Methods and Limitations

The ASM includes approximately 50,000 establishments selected from the census universe of 328,500 manufacturing establishments. Some 20,000 establishments are selected with certainty, and some 30,000 other establishments are selected with probability proportional to a composite measure of establishment size. The survey frame is updated from two sources; Internal Revenue Service administrative records are used to include new single-unit manufacturers and the Company Organization Survey identifies new establishments of multi-unit firms.

For more information on sample design, selection and estimation, refer to the ASM website.

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References

- Website
  - http://www.census.gov/manufacturing/asm

- Data Dictionaries and Glossary Terms
  - Definitions

- Related Publications
  - How the Data is Collected
    - http://www.census.gov/manufacturing/asm/how_the_data_are_collected/index.html
  - Frequently Asked Questions
    - https://ask.census.gov/

Data Provider and Contact

Data Provider Agency: U.S. Department of Commerce
U.S. Census Bureau

Contact: Phone: (301) 763-4673
A 3. Carload Waybill Sample

Overview

The Carload Waybill Sample is a stratified sample of carload waybills for all U.S. rail traffic submitted by those rail carriers terminating 4,500 or more revenue carloads annually. This database is available in two versions – the Public Use Waybill Sample (PUWS) and the confidential Carload Waybill Sample. The PUWS is a non-proprietary version of the confidential Carload Waybill Sample.8

Coverage

Under 49 CFR (Code of Federal Regulations) Part 1244, a railroad is required to file carload Waybill Sample information for all line-haul revenue waybills terminating on its lines if, in any of the three preceding years, it terminated 4500 or more carloads, or it terminated at least five five of the total revenue carloads that terminate in a particular state.8

Availability

First Year: 1972
Last Year: 2011
Frequency: Annually

Uses

The STB [Surface Transportation Board] uses the Waybill Sample data for projects, analyses, and studies. Federal agencies use the Waybill Sample as part of their information base. The states use it as a major source of information for developing state transportation plans. Railroads are entitled to obtain Waybill data for movements they participated in. Waybill data are used by transportation practitioners, consultants and law firms with formal proceedings before the STB or State Boards.8

Data Tables

The PUWS is available for download from the STB website. The Confidential Carload Waybill Sample is available, subject to appropriate protective conditions, through the STB Office of Economics.

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### Data Collection Methods and Limitations

The waybills are sampled under two different plans. The "MRI" plan for data delivered on cartridges stratifies sampled waybills into five different levels of sampling frequency depending on the number of carloads on the waybill. Waybills representing larger number of carloads are sampled more frequently. The second technique, called the "Ex Parte 385" plan, allows manual sampling of waybills, typically for smaller railroads, and is stratified into three different levels of sampling frequency. The entire sample of waybills is then expanded using appropriate multipliers for each sampling level to represent total U.S. rail movements in that year.9

For additional information on data collection and reporting, refer to the Reference Guides and the STB Procedure for Sampling Waybill Records by Computer.

### References

- Website
- Data Dictionaries and Glossary Terms
  - Reference Guide for the 2011 Surface Transportation Board Carload Waybill Sample
- Related Publications
  - STB Procedure for Sampling Waybill Records by Computer

---

### Data Provider and Contact

<table>
<thead>
<tr>
<th>Data Provider Agency</th>
<th>Surface Transportation Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact:</td>
<td>395 E Street, SW,</td>
</tr>
<tr>
<td></td>
<td>Washington, DC 20423</td>
</tr>
<tr>
<td>Phone:</td>
<td>(202) 245-0323</td>
</tr>
</tbody>
</table>
A 4. Commodity Flow Survey

Overview

The Commodity Flow Survey (CFS) is the primary source of national and state-level data on domestic freight shipments by American establishments in mining, manufacturing, wholesale, auxiliaries, and selected retail industries. Data is provided on the types, origins and destinations, values, weights, modes of transport, distance shipped, and ton-miles of commodities shipped. The CFS is a shipper-based survey and is conducted every five years as part of the Economic Census. It provides a modal picture of national freight flows, and represents the only publicly available source of commodity flow data for the highway mode. The CFS was conducted in 1993, 1997, 2002, 2007, and most recently in 2012.10

Coverage

Industry Coverage

The 2007 CFS covers business establishments with paid employees that are located in the United States and are classified using the 2002 NAICS in mining, manufacturing, wholesale, and selected retail and services trade industries, namely, electronic shopping and mail-order houses, fuel dealers, and publishers. Additionally, the survey covers auxiliary establishments (i.e., warehouses and managing offices) of multi-establishments companies.

Shipment Coverage

The CFS collects data on shipments originating from within-scope industries, including exports. Imports are not included until the point that they leave the importer's initial domestic location for shipment to another location. The survey does not cover shipments originating from business establishments located in Puerto Rico and other U.S. possessions and territories.11

Availability

First Year: 1993
Last Year: 2007
Frequency: Since 1997, the survey has been conducted in years ending in 2 or 7, aligning it with (and as a component of) the economic census. Note: Preliminary estimates for 2012 CFS expected in December 2013.


Uses

1. Analyze trends in goods movement over time;
2. Conduct national, regional and sectorial economic analysis;
3. Develop models and analytical tools for policy analyses, management, and investment decisions;
4. Forecast future demand for goods movement and associated infrastructure and equipment needs;
5. Establish benchmarks for estimating national accounts; and
6. Analyze and map spatial patterns of commodity and vehicle flows.

CFS data forms the basis for the Federal Highway Administration’s (FHWA) Freight Analysis Framework, a model that displays by mode the movement of goods over the national transportation network. In addition, the CFS Hazardous Materials report is the sole source of hazardous materials flow data available for the highway mode.

Data Tables

The CFS data is available for download on the Census Bureau's web site and American FactFinder system.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin by Destination by Commodity</td>
<td>2007</td>
</tr>
<tr>
<td>This file provides information on shipment characteristics such as value, tons, and ton-miles, by two-digit Standard Classification of Transported Goods (SCTG) commodity for geographic area of origin and destination.</td>
<td></td>
</tr>
<tr>
<td>Origin by Destination by Mode</td>
<td>2007</td>
</tr>
<tr>
<td>This file provides information on shipment characteristics such as value, tons, and ton-miles, by mode of transportation for geographic area of origin and destination.</td>
<td></td>
</tr>
</tbody>
</table>

Reports and Associated Tables

1. CFS Exports  
   1997 – 2007
2. CFS Hazardous Materials  
   1997 – 2007
3. United States  
   1993 – 2007
4. Individual State Table  
   1997 – 2007
5. Metropolitan Areas  
   1997 – 2007


Data Collection Methods and Limitations

Beginning with the 2007 CFS, a sample of 100,000 establishments is selected based on geographic location and industry. Each establishment selected for the CFS sample is mailed a questionnaire for each of its four reporting weeks. Each sampled establishment is asked to report on a sample of individual shipments during a one-week period in each calendar quarter. Establishments classified in transportation, construction, and most retail and services industries are excluded from the survey. Farms, fisheries, foreign establishments, and most government-owned establishments are also excluded.

The CFS sample size has varied between 50,000 and 200,000 establishments, depending on survey year. Varying sample sizes may result in differing margins of error.

Auxiliary Issue:⁴⁴ Auxiliaries present special scoping and sizing challenges. Auxiliary is an establishment of a multi-establishment company that provides support to the rest of the company (ex. Headquarters offices, regional offices, data processing facilities, training facilities, warehouses, and distribution centers). For each CFS year, it is difficult to determine whether auxiliary establishments are doing any shipping for their company, and if so, how much. As a result, past surveys have many sampled auxiliaries which turned out to be non-shippers, and measures of shipping activity estimated for sampling and editing purposes were frequently substantially inaccurate. The 2002 CFS uses a different methodology for classifying auxiliaries than previous versions, which may result in unique challenges for analysts comparing auxiliaries across various data collection years.

Additional information on how the data is collected is available on the CFS website.

References

- Website
  - http://www.census.gov/econ/cfs/
- Data Dictionaries and Glossary Terms
  - Data dictionaries can be derived from individual data files
  - Definitions
    - http://www.census.gov/econ/cfs/definitions.html
- Related Publications
  - Reports and publications

Data Provider and Contact

Data Provider Agency: U.S. Department of Transportation  
Research and Innovative Technology Administration  
Bureau of Transportation Statistics  

Contact: BTS Info Services  
Phone: 800-853-1351  
Email: RITAInfo@dot.gov
A 5. County Business Patterns

Overview

County Business Patterns (CBP) is an annual series that provides subnational economic data by industry. It provides annual statistics for businesses with paid employees within the U.S., Puerto Rico, and Island Areas (Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands) at a detailed geography and industry level. This program is authorized under the United States Code, Titles 13 and 26.15

Coverage

Statistics include the number of establishments, employment during the week of March 12, first quarter payroll, and annual payroll. Statistics are available on business establishments at the U.S. level and by state, county, metropolitan area, and Zip code levels. Data for Puerto Rico and the Island Areas are available at the state and county equivalent levels. CBP covers most NAICS industries excluding crop and animal production; rail transportation; National Postal Service; pension, health, welfare, and vacation funds; trusts, estates, and agency accounts; private households; and public administration. CBP also excludes most establishments reporting government employees.15

Availability

First Year: 1986
Last Year: 2011
Frequency: Annually
Note: CBP statistics are available approximately 18 months after each reference year. In addition, Zip Code Business Patterns data is available shortly after the release of CBP.

Uses15

1. To study the economic activities of small areas
2. As a benchmark for other statistical series, surveys, and databases between economic censuses
3. Used by state and local governments to analyze economic changes over time, develop fiscal policies, and plan future policies and programs
4. Used by businesses to analyze market potential, measure the effectiveness of sales and advertising programs, set sales quotas, and develop budgets

5. Used by federal agencies to determine employee concentrations and trends by industry

Data Tables

The CBP data is available for download on the Census Bureau's web site and American FactFinder system.16

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. County File</td>
<td>1986 – 2011</td>
</tr>
<tr>
<td>This file provides information on the number of establishments, employment-size class, and payroll by 6-digit NAICS industry code at the county level.</td>
<td></td>
</tr>
<tr>
<td>This file provides information on the number of establishments, employment-size class, and payroll by 6-digit NAICS industry code at the state level.</td>
<td></td>
</tr>
<tr>
<td>This file provides information on the number of establishments, employment-size class, and payroll by 6-digit NAICS industry code at the national level.</td>
<td></td>
</tr>
<tr>
<td>This file provides information on the number of establishments, employment-size class, and payroll by 6-digit NAICS industry code at the metropolitan area level.</td>
<td></td>
</tr>
<tr>
<td>This file provides information on the total number of establishments, employment-size class, and payroll at the zip code level.</td>
<td></td>
</tr>
<tr>
<td>This file provides information on the total number of establishments and employment-size class by 6-digit NAICS industry code at the zip code level.</td>
<td></td>
</tr>
<tr>
<td>This file provides information on the number of establishments, employment-size class, and payroll by 6-digit NAICS industry code for Puerto Rico &amp; the Island Areas of American Samoa, Guam, Commonwealth of the Northern Mariana Islands, and Virgin Islands of the United States.</td>
<td></td>
</tr>
</tbody>
</table>

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Data Collection Methods and Limitations

CBP basic data items are extracted from the Business Register (BR), a database of all known single and multi-establishment employer companies maintained and updated by the U.S. Census Bureau. The BR contains the most complete, current, and consistent data for business establishments. The annual Company Organization Survey provides individual establishment data for multi-establishment companies. Data for single-establishment companies are obtained from various Census Bureau programs, such as the Economic Census, Annual Survey of Manufactures and Current Business Surveys, as well as from administrative record sources.\textsuperscript{17}

CBP data are processed through various automated and analytical edits to remove anomalies, validate geographic coding, addresses, and industry classification. Noise infusion methodology is applied to protect individual business establishments from disclosure. Noise infusion was first applied to CBP data in 2007. Prior to 2007, data were protected using the complementary cell suppression method.

For more information on industry and geography classification and the noise infusion methodology, refer to the CBP website.\textsuperscript{17}

References

- Website
  - http://www.census.gov/econ/cbp/

- Data Dictionaries and Glossary Terms
  - Available for each file
    - http://www.census.gov/econ/cbp/download/
  - Definitions
    - http://www.census.gov/econ/cbp/definitions.htm

- Related Publications
  - Data User Guide
  - Frequently Asked Questions
    - https://ask.census.gov/

Data Provider and Contact

Data Provider Agency: U.S. Department of Commerce
U.S. Census Bureau

Contact: County Business Patterns Staff
Phone: (301) 763-2580
Email: epcd.county.business.patterns@census.gov

A 6. Energy Information Administration Data Services

Overview

The U.S. Energy Information Administration (EIA) is the statistical and analytical agency within the U.S. Department of Energy. EIA collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment. EIA is the nation's premier source of energy information and, by law, its data, analyses, and forecasts are independent of approval by any other officer or employee of the U.S. Government.18

Coverage

The EIA conducts a comprehensive data collection program that covers the full spectrum of energy sources, end uses, and energy flows. The EIA also prepares informative energy analyses, monthly short-term forecasts of energy market trends, and long-term U.S. and international energy outlooks. The EIA disseminates its data, analyses, and other products primarily through its website and customer contact center.7

Availability

First Year: 1949
Last Year: 2013
Frequency: Daily, weekly, monthly, annually, and periodically as needed or requested.

Uses

EIA data services are the main source of information of all energy-related statistical analysis and forecasting.

Data Tables

Weekly, monthly, quarterly, and annual reports and files are available for download as Excel Spreadsheet, PDF, and CSV.

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### Table Name

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total Energy</td>
<td>1949 – current</td>
</tr>
<tr>
<td>Multiple reports and files provide statistics on total energy production, consumption, and trade; energy prices; overviews of petroleum, natural gas, coal, electricity, nuclear energy, renewable energy, and international petroleum; carbon dioxide emissions; and data unit conversion values.</td>
<td></td>
</tr>
<tr>
<td>2. Petroleum and Other Liquids</td>
<td>1950 – current</td>
</tr>
<tr>
<td>This includes statistics on crude oil, gasoline, heating oil, diesel, propane, and other liquids, including biofuels and natural gas liquids. Multiple files provide information on petroleum prices, crude reserves and production, refining and processing, imports/exports, stocks, and consumption/sales.</td>
<td></td>
</tr>
<tr>
<td>3. Natural Gas</td>
<td>1949 – current</td>
</tr>
<tr>
<td>Multiple reports and files provide statistics on natural gas exploration and reserves, storage, imports and exports, production, prices, and sales.</td>
<td></td>
</tr>
<tr>
<td>4. Electricity</td>
<td>1949 – current</td>
</tr>
<tr>
<td>Multiple reports and files provide statistics on electricity sales, revenue and prices, power plans, fuel use, stocks, generation, trade, demand, and emissions.</td>
<td></td>
</tr>
<tr>
<td>5. Coal</td>
<td>1949 – current</td>
</tr>
<tr>
<td>Multiple reports and files provide statistics on coal reserves, production, prices, employment and productivity, distribution, stocks, imports, and exports.</td>
<td></td>
</tr>
<tr>
<td>6. Nuclear and Uranium</td>
<td>1949 – current</td>
</tr>
<tr>
<td>Multiple reports and files provide statistics on uranium fuel, nuclear reactors, nuclear power generation, and spent fuel.</td>
<td></td>
</tr>
<tr>
<td>Multiple reports and files provide statistics on hydropower, solar, wind, geothermal, biomass, and ethanol and generation.</td>
<td></td>
</tr>
<tr>
<td>8. Consumption and Efficiency</td>
<td>1949 – current</td>
</tr>
<tr>
<td>Multiple reports and files provide statistics on energy used in homes, commercial buildings, manufacturing, and transportation.</td>
<td></td>
</tr>
</tbody>
</table>

### Data Collection Methods and Limitations

EIA collects data and information from multiple sources and assumes responsibility for:

- Determining sources of data
Establishing measurement methods
Selecting methods of data collection and processing that provide useful information while minimizing respondent burden
Employing appropriate analytical and forecasting methods, and
Ensuring the public availability of data and supporting documentation.¹⁹

For additional information on EIA’s standards, policies, and other operational guidance, please refer to the EIA Standards Manual²⁰. The Manual contains 32 EIA standards designed for general application to EIA models, surveys, data systems, and information products. EIA conducts over 50 surveys, utilizes over 100 data systems, operates over 25 models for analysis and forecasting, and disseminates information in numerous electronic and printed products.²⁰

References

- Website
  - http://www.eia.gov/
- Glossary Terms
  - Glossary
    - http://www.eia.gov/tools/glossary/
- Related Publications
  - EIA Standards Manual
    - http://www.eia.gov/about/eia_standards.cfm
  - Multiple reports and publications are available on the EIA website

Contact Information

Data Provider Agency: U.S. Department of Energy
Contact: U.S. Energy Information Administration
1000 Independence Ave., SW
Washington, DC 20585
Email: InfoCtr@eia.gov
Phone: (202) 586-8800


A 7. National Highway Planning Network

Overview

The National Highway Planning Network (NHPN) is a geospatial network database that contains line features representing more than 450,000 miles of highways in the United States. The NHPN contains geospatially referenced information on the National Highway System (NHS), the Eisenhower Interstate System, the Strategic Highway Network, and NHS Intermodal Connectors.21

Coverage

In terms of highway functional class, this database covers all principal arterials and rural minor arterials. It also has an existing linear referencing system that allows Highway Performance Monitoring System (HPMS) and NBI data to be linked to the network.

Availability

First Year: 2005
Last Year: Current
Frequency: Unknown

Uses21

1. Produce maps of the NHS
2. Maintain information of what roads are on the NHS
3. Serve as a base road network for other mapping and Geographic Information System (GIS) purposes within FHWA
4. Modeling freight flows across the U.S. as part of the FHWA Freight Analysis Framework and as the default road network in the state version of the FHWA Highway Economic Requirements System–State Version

Data Tables

The NHPN v11.09 is available for all 50 states, the District of Columbia and Puerto Rico. These files are in a zipped Shapefile format and available for download via the HHPN website.21

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Data Collection Methods

The NHPN v4.0 network database was developed from many different digital and non-digital sources. The NHPN was matched to U.S. Geological Survey’s DLG-3 road lines (USGS 1989), resulting in a nominal accuracy of 1:100,000 for arcs that were matched. Alaska and Puerto Rico were matched to 1:250,000 CENSUS TIGER/Line records, as no DLG-3 series data were available for these areas. The maps and digital data submitted by the state DOTs were converted into forms that are consistent with the NHPN data and improved to create an enhanced version of the NHPN with greater Urban Area detail. The topology of the network was also defined.

Additional information on the sources, scope and extent of the NHPN is available on the website.

References

- Website

- Data Dictionaries
  - Node Attribute Dictionary
  - Arc Attribute Dictionary
    http://www.fhwa.dot.gov/planning/processes/tools/nhpn/docs/aat.cfm
  - Route Attribute Dictionary

- Related Publications
  - NHPN Description, Schema, and File Structures
    http://www.fhwa.dot.gov/planning/processes/tools/nhpn/docs/desc.cfm#development

Data Provider and Contact

Data Provider Agency:  U.S. Department of Transportation
Federal Highway Administration

Contact:  Office of Planning
Geographic Information System (GIS) Applications
Phone: (202) 366-4828

A 8. Fatality Analysis Reporting System

Overview

The Fatality Analysis Reporting System (FARS) is an annual nationwide census of roadway fatalities in the United States. The data is provided to the National Highway Traffic Safety Administration (NHTSA), Congress, and the general public. It is accessible through the online FARS Encyclopedia Query System and the FARS file transfer protocol website.23

Coverage

FARS is a census of fatal motor vehicle crashes with a set of data files documenting all qualifying fatalities that occurred within the 50 states, the District of Columbia, and Puerto Rico since 1975. To qualify as a FARS case, the crash had to involve a motor vehicle traveling on a roadway customarily open to the public, and must have resulted in the death of a motorist or a non-motorist within 30 days of the crash.24

Availability

First Year: 1975
Last Year: 2012
Frequency: Annually

Uses25

1. Develop, implement and assess highway safety programs aimed at reducing motor vehicle traffic crashes
2. Identify highway safety problem areas
3. Provide a basis for regulatory and consumer information initiatives
4. Form the basis for cost and benefit analyses of highway safety initiatives

Data Collection Methods and Limitations

The NHTSA has a cooperative agreement with an agency in each state's government to provide information on all qualifying fatal crashes in the state. These agreements are managed by Regional Contracting Officer’s Technical Representatives located in the 10 NHTSA Regional Offices. Trained state employees, called “FARS Analysts,” are responsible for gathering, translating, and transmitting their state’s data to National Center for Statistics and Analysis in a standard format.24

Data is limited to vehicle crashes in the U.S. that occur on a public roadway and involve

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Due to the complexities within the FARS data, users cannot query across multiple years. Additional information on the data is available on the FARS website and FARS Analytical User’s Manual.

**Data Tables**

Raw FARS data is made available for download in statistical analysis system (SAS, file suffix .SAS) data files and database files (file suffix .DBF). Changes are made each year to the type of data collected and reported in the data files. Coding changes and the years for which individual data items are available are shown in the “Data Element Definitions and Codes” section of the FARS Analytical User’s Manual.

The SAS data files and years of availability are listed below.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Accident</td>
<td>1975 – current</td>
</tr>
<tr>
<td>This data file contains information about crash characteristics and environmental conditions at the time of the crash. There is one record per crash.</td>
<td></td>
</tr>
<tr>
<td>2. Vehicle</td>
<td>1975 – current</td>
</tr>
<tr>
<td>This data file contains information describing the in-transport motor vehicles and the drivers of in-transport motor vehicle who are involved in the crash. There is one record per in-transport motor vehicle. Parked and working vehicle information is in the Parkwork data file.</td>
<td></td>
</tr>
<tr>
<td>3. Person</td>
<td>1975 – current</td>
</tr>
<tr>
<td>This data file contains information describing all persons involved in the crash, including motorists (i.e., drivers and passengers of in-transport motor vehicles) and non-motorists (e.g., pedestrians and bicyclists). It provides information such as age, sex, vehicle occupant restraint use, and injury severity. There is one record per person.</td>
<td></td>
</tr>
<tr>
<td>4. Cevent</td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains information for all of the qualifying events (both harmful and non-harmful) that occurred in the crash. It details the chronological sequence of events resulting from an unstabilized situation that constitutes a motor vehicle traffic crash. There is one record per event. For each motor vehicle, the event number of its most harmful event is stored in the Vehicle data file.</td>
<td></td>
</tr>
<tr>
<td>5. Vevent</td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains the sequence of events for each motor vehicle involved in the crash. Included are the event numbers, non-harmful events (e.g., ran off road-right, crossed center line), objects struck and areas of impact, and information about the struck vehicle (if present).</td>
<td></td>
</tr>
<tr>
<td>Table Name</td>
<td>Availability</td>
</tr>
<tr>
<td>------------</td>
<td>--------------</td>
</tr>
<tr>
<td>There is one record for each harmful and non-harmful event in which the vehicle is involved.</td>
<td></td>
</tr>
<tr>
<td><strong>6. Vsoe</strong></td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains the sequence of events for each motor vehicle involved in the crash. Included are the event number with respect to the vehicle, non-harmful events (e.g., ran off road-right, crossed center line), and objects struck and areas of impact. There is one record for each harmful and non-harmful event in which the vehicle is involved. It is a simplified Vevent data file.</td>
<td></td>
</tr>
<tr>
<td><strong>7. Factor</strong></td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains information about vehicle circumstances that may have contributed to the crash. There is at least one record per in-transport motor vehicle. Each factor is a separate record.</td>
<td></td>
</tr>
<tr>
<td><strong>8. Violatn</strong></td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains information about violations that drivers were charged with. There is at least one record per in-transport motor vehicle. Each violation is a separate record.</td>
<td></td>
</tr>
<tr>
<td><strong>9. Vision</strong></td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains information about circumstances that may have obscured the driver’s vision. There is at least one record per in-transport motor vehicle. Each obstruction is a separate record.</td>
<td></td>
</tr>
<tr>
<td><strong>10. Maneuver</strong></td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains information about actions taken by the driver to avoid something or someone in the road. There is at least one record per in-transport motor vehicle. Each maneuver is a separate record.</td>
<td></td>
</tr>
<tr>
<td><strong>11. Distract</strong></td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains information about driver distractions. There is at least one record per in-transport motor vehicle. Each distraction is a separate record.</td>
<td></td>
</tr>
<tr>
<td><strong>12. Drimpair</strong></td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains information about physical impairments of drivers of motor vehicles. There is one record per impairment and there is at least one record for each driver of an in-transport motor vehicle.</td>
<td></td>
</tr>
<tr>
<td><strong>13. Nmimpair</strong></td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains information about physical impairments of people who are not occupants of motor vehicles. There is one record per impairment and there is at least one record for each person who is not an occupant of a motor vehicle.</td>
<td></td>
</tr>
<tr>
<td><strong>14. Nmcrash</strong></td>
<td>2010 – current</td>
</tr>
<tr>
<td>This data file contains information about any improper actions of</td>
<td></td>
</tr>
</tbody>
</table>
people who are not occupants of motor vehicles (e.g., pedestrians and bicyclists) or contributing circumstances noted on the PAR. There is one record per action and there is at least one record for each person who is not an occupant of a motor vehicle.

15. **Nm prior**
This data file contains information about what people who are not occupants of motor vehicles (e.g., pedestrians and bicyclists) are doing prior to the crash. There is one record per action and there is at least one record for each person who is not an occupant of a motor vehicle.

16. **Safetyeq**
This data file contains information about safety equipment used by people who are not occupants of motor vehicles. There is one record per equipment item, and there is at least one record for each person who is not an occupant of a motor vehicle.

17. **Vehnit**
This data file contains information about parked and working vehicles that were involved in FARS crashes. Prior to the Vehnit creation, the vehicles Not-In-Transport were not included in the FARS data. This data file had the same list of data elements and SAS structure as the Vehicle data file where the UNITTYPE of the vehicle is 2, 3, or 4. The vehicle data file will have the vehicles in-transport where the UNITTYPE of the vehicle is 1. Beginning in 2010, FARS discontinued the Vehnit data file and introduced the Parkwork data file. There is one record per parked/working vehicle.

18. **Parkwork**
This data file contains information about parked and working vehicles that were involved in FARS crashes. A “parked vehicle” is a motor vehicle that is stopped off the roadway. A “working vehicle” is a motor vehicle that was in the act of performing highway construction, maintenance, or utility work related to the roadway when it became involved in the crash. Data users are strongly advised to consult the annual FARS Coding and Editing Manuals for a detailed description. There is one record per parked/working vehicle.

A summary of FARS data and maps are also available online through the FARS Encyclopedia, FARS Data Files and Query FARS Data tools.25

**References**

• Website
  o http://www.nhtsa.gov/FARS

• Database Dictionary
  o Raw Data Download

• Related Publications
  o List of related publications

Contact Information

Data Provider Agency: U. S. Department of Transportation
National Highway Traffic Safety Administration

Contact: National Center for Statistics and Analysis
Washington, D.C. 20590
A 9. Federal Railroad Administration Safety Database

Overview

The Federal Railroad Administration (FRA) Safety Database provides information on 1) rail equipment accidents/incidents, 2) grade crossing inventory and accidents, 3) railroad-related injuries, illnesses, and fatalities, and 4) a summary of monthly railroad operations, including train miles run and employee man-hours worked.

Coverage

49 CFR Part 225 requires that each railroad subject to Part 225 submit to FRA monthly reports of all accidents and incidents that meet FRA's reporting criteria. 26

Availability

First Year: 1975
Last Year: Current
Frequency: Monthly

Uses

According to Part 225,
1. the FRA uses this information to effectively carry out its statutory responsibilities under 49 U.S.C. chapters 201–213
2. the FRA also uses this information for determining comparative trends of railroad safety and to develop hazard elimination and risk reduction programs that focus on preventing railroad injuries and accidents. 26

Data Tables

FRA has made its current and archival Railroad Accident/Incident and Highway-Rail Crossing Inventory database files available to all users. They are downloadable as self-extracting ZIP executable (.EXE) files which expand into generic dBASE (.DBF). 27

26 49 CFR Part 225 – Railroad Accidents/Incident: Reports Classification, and Investigations
Table Name | Availability
---|---
1. *Highway-Rail Crossing Inventory Data* | Current
These files contain the FRA’s most current and archival highway-rail crossing inventory database by state.

2. *Rail Equipment Accident/Incidents* | 1975 – current
This file contains reported cases of collisions, derailments, fires, explosions, acts of God, or other events involving the operation of railroad on-track equipment and involving damages exceeding the reporting threshold for the year reported. National files from 1975 through the current year are available for download.

3. *Grade Crossing Accidents* | 1975 – current
This file contains reported cases of impacts between on-track equipment and any user of a public or private highway-rail intersection. National files from 1975 through the current year are available for download. In addition, individual files by state are available for the years 1991 through the current year.

4. *Casualty* | 1975 – current
This file contains reported cases of railroad-related injuries, illnesses, and fatalities. National files from 1975 through the current year are available for download. In addition, individual files by state are available for the years 1991 through the current year.

This file contains summary information on the railroads monthly operations, including train miles run and employee man-hours worked. National files from 1975 through the current year are available for download.

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**Data Collection Methods and Limitations**

Federal railroad safety regulations at § 225.11 and § 225.21 require that each railroad subject to Part 225 complete reports and records of accidents/incidents in accordance with the current FRA Guide.

See the *FRA Guide to Preparing Accident/Incident Reports* for complete details on data reporting guidelines.\(^{28}\)

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References

• Website
  o http://safetydata.fra.dot.gov/

• Database Dictionaries:
  o FRA Database File Structures
  o U.S. DOT Crossing Inventory Form: Data File Structure and Field Input Specifications

• Related Publications
  o Forms & Publications including the Accident/Incident Recordkeeping and Reporting Requirements

Data Provider and Contact

Data Provider Agency: U. S. Department of Transportation
Federal Railroad Administration
Contact: Office of Railroad Safety
Washington, D.C. 20590
A 10. Foreign Trade

Overview

The Foreign Trade database is the official source for U.S. export and import statistics, information on export regulations, commodity classifications, and other trade-related topics. These statistics provide a principal economic indicator as well as the most complete and only official source of monthly statistics on U.S. exports and imports. These statistics include data about all 240 U.S. trading partners, over 400 U.S. ports, and 45 districts.29

Coverage

The export statistics consist of goods valued at more than $2,500 per commodity shipped by individuals and organizations (including exporters, freight forwarders, and carriers) from the U.S. to other countries. The import statistics consist of goods valued at more than $2,000 per commodity shipped by individuals and organizations (including importers and customs brokers) into the U.S. from other countries.30

Availability

First Year: 1960
Last Year: Current
Frequency: Monthly, Annually

Uses30

1. The Bureau of Economic Analysis uses the data to update U.S. balance of payments, GDP, and national accounts.
2. Other federal agencies use them for economic, financial, and trade policy analysis (such as export promotion studies and export price indexes).
3. Private businesses and trade associations use them for domestic and overseas market analysis, and industry-, product-, and area-based business planning.

Data Tables

Data is compiled in terms of commodity classification, quantities, values, shipping weights, method of transportation (air or vessel), state of (movement) origin, customs

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district, customs port, country of destination, and whether contents are domestic goods or exports.  

**Exports:** Since January 1989, commodities have been compiled under Schedule B harmonized classifications of domestic and foreign commodity exports. These transactions are classified under approximately 9,000 different products leaving the United States.  

**Imports:** Since January 1989, commodities have been compiled under the Harmonized Tariff Schedules of the United States (HTS) containing more than 18,000 import commodity codes.  

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USA Trade Online</strong></td>
<td></td>
</tr>
<tr>
<td>This is an online subscription service which provides U.S. export and import statistics of commodities at a high level of granularity (up to 10 digit HS [Harmonized Schedule] and six digit NAICS) by state, country, and customs district.</td>
<td></td>
</tr>
<tr>
<td>1. District Data (10-digit HS detail)</td>
<td>2003 – current</td>
</tr>
<tr>
<td>2. Port Data (6-digit HS detail)</td>
<td>2003 – current</td>
</tr>
<tr>
<td>3. State Export Data (6-digit HS detail &amp; 4-digit NAICS detail)</td>
<td>2002 – current</td>
</tr>
<tr>
<td>4. State Import Data (6-digit HS detail &amp; 4-digit NAICS detail)</td>
<td>2002 – current</td>
</tr>
<tr>
<td>5. NAICS Data (6-digit NAICS detail)</td>
<td>2002 – current</td>
</tr>
<tr>
<td><strong>U.S. Exports and Imports of Merchandise – Monthly</strong></td>
<td></td>
</tr>
<tr>
<td>Provides export and import statistics in ASCII or dBase format. Each file has various data fields for HS commodities at the 2, 4, 6 and 10-digit level. Country and customs district data for value and quantity are provided on a monthly, year-to-date and annual basis.</td>
<td></td>
</tr>
<tr>
<td>6. Merchandise Trade Exports – Multiple Files (12 in all)</td>
<td>1989 – current</td>
</tr>
<tr>
<td>7. Merchandise Trade Imports – Multiple Files (12 in all)</td>
<td>1989 – current</td>
</tr>
<tr>
<td><strong>U.S. Exports and Imports of Merchandise – History</strong></td>
<td></td>
</tr>
<tr>
<td>Provides five years of historical annual revised export and import statistics in ASCII or dBase format. Each file has various data fields for HS commodities at the 2-, 4-, 6-, and 10-digit level. Commodity data for value and quantity are provided on an annual basis.</td>
<td></td>
</tr>
<tr>
<td>8. Merchandise History Exports – Multiple Files (12 in all)</td>
<td>1989 – current</td>
</tr>
<tr>
<td>9. Merchandise History Imports – Multiple Files (12 in all)</td>
<td>1989 – current</td>
</tr>
<tr>
<td><strong>U.S. Exports and Imports by State</strong></td>
<td></td>
</tr>
<tr>
<td>Provides export and import statistics by state of Origin of Movement in ASCII file format. Each file has various data fields for HS commodities at the 6-digit HS level or 3- or 4-digit NAICS level. Commodity data for value, shipping weight, and method of transportation are provided on a monthly, quarterly, or annual basis.</td>
<td></td>
</tr>
</tbody>
</table>

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The trade data provided by the Foreign Trade statistics database is also accessible online via the TradeStats Express system. TradeStats Express provides statistics on U.S. merchandise trade only. Statistics on U.S. trade in services are not yet available. TradeStats Express displays the latest annual U.S. merchandise trade statistics (1) by National Trade Data and State Export Data; (2) in maps, graphs, and tables; (3) as exports, imports, and trade balances; and (4) can be custom-tailored by year and dollar ranges and display preferences.32

are made for low-value exports by country of destination, and based on bilateral trade patterns.30

Imports: Statistics for over 99 percent of all commodity transactions are compiled from records filed electronically with the CBP and forwarded electronically to the U.S. Census Bureau. Statistics for other transactions are compiled from hard-copy documents filed with the CBP and forwarded on a flow basis for U.S. Census Bureau processing.30

Additional information on the data is available on the Foreign Trade website and the Guide to Foreign Trade Statistics.

References

- Website
  - http://www.census.gov/foreign-trade/

- Glossary Terms
  - Trade Definitions
    http://www.census.gov/foreign-trade/reference/definitions/index.html

- References
  - Guide to Foreign Trade Statistics
    http://www.census.gov/foreign-trade/guide/
  - Foreign Trade Statistics – Security Guidelines
    http://www.census.gov/foreign-trade/reference/index.html

Data Provider and Contact

Data Provider Agency: U.S. Department of Commerce
U.S. Census Bureau

Contact: Foreign Trade Staff
Phone: (800)549-0595
Email: ftdwebmaster@census.gov
A 11. Freight Analysis Framework

Overview

The Freight Analysis Framework (FAF) is a compilation of data and products that provides estimates of freight shipped to (imports), from (exports), and within (domestic) the United States. It consists of: (1) downloadable data sets; (2) a web-based tabulation tool which allows you to extract, view, and download the specific information you are interested in; and (3) several data products. It provides a comprehensive national picture of freight flows, trends, and a baseline forecast to support policy studies. The FAF informs states and localities about their major trading partners and the volumes and sources of traffic passing through their jurisdictions at the corridor level[33].

Coverage

Estimates of freight measures available in version three of the FAF (FAF3) include value, tons, and domestic ton-miles:

- By mode of transportation
- For type of commodity
- Between and within states or the 123 domestic FAF regions, and to and from eight foreign regions for exports and imports
- For 2007 (the most recent Economic Census year), a provisional estimate for the most recent year, and forecasts for 2015, 2020, 2025, 2030, 2035, and 2040

In addition, FAF3 includes estimates for value, tons, and domestic ton-miles for 1997 and 2002 at the state level only using FAF3 methodology[33].

Availability

First Year: 1997
Last Year: 2007
Frequency: After each 5-year Economic Census which includes the Commodity Flow Survey

Uses

The FAF was created to help users understand how the movement of freight affects the transportation system and where problems with the transportation system could affect the flow of freight. By combining FAF estimates with other data and models, analysts and planners can examine relationships between freight movement and congestion, economic activity, infrastructure wear, safety risk exposure, energy consumption, and environmental issues.[33]

**Data Tables**

FAF3 origin-destination data access is provided through a web-based tabulation tool. FAF3 also provides zipped files for download by users that require the complete database of regional flows by origin, destination, commodity, and mode.

FAF3 data is disaggregated from the Origin-Destination Database into interregional flows between localities and assigned to individual highways using average payloads per truck, and truck counts on individual highway segments.\(^\text{34}\)

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### FAF3 Regional Datasets
These files contain tonnage, value, and domestic ton-miles by FAF region of origin and destination, commodity type, and mode for 2007 through 2040.

1. FAF3 Regional Database for 2007 with forecasts through 2040, and 2010 Provisional Data in zipped Microsoft Access format 2007
2. FAF3 Regional Database for 2007 with forecasts through 2040 in zipped CSV format 2007
3. FAF3 Provisional Annual Data for 2010 in zipped CSV format 2010

### FAF3 State-Level Datasets
These files contain tonnage, value, and domestic ton-miles by state of origin and destination, commodity type, and mode for 1997 through 2040. Note: 1997 and 2002 have been reprocessed using FAF3 methodology with original source data.

5. FAF3 State Database for 2007 with forecasts through 2040 in zipped CSV format 2007
6. FAF3 State Provisional Annual Data for 2010 in zipped CSV format 2010
7. FAF3 Reprocessed State Annual Data for 1997 in zipped CSV format 1997
8. FAF3 Reprocessed State Annual Data for 2002 in zipped CSV format 2002

### FAF3 Network Data
The FAF network and boundary GIS layers

9. FAF3 Network Layer 2007
10. FAF3 Regions Boundary Layer 2007

### FAF3 Summary Statistics and Products
State profile table generated using total flows moved between domestic origins and destinations and include both domestic and foreign shipments are also available for download. Foreign shipments include flows between the state of entry and the destination state for imported shipments and flows between the origin state and the state of exit for exported shipments. Modes of transportation provided in these tables are the modes used within and between domestic states.\(^{35}\)

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Data Collection Methods and Limitations

The FAF is built primarily on the Commodity Flow Survey (CFS) and uses the modes, commodity classification, and geography developed for that survey. The CFS includes shipments from mines, manufacturing facilities, warehousing establishments, and selected other industries. The FAF uses a variety of data and models to estimate shipments that are out of scope for the CFS, such as imports, crude petroleum by pipeline, and shipments from farms. As a consequence, FAF estimates are higher than estimates from the CFS. While not as complete as the FAF, the CFS has greater commodity detail, identifies hazardous cargo, and relates commodities to industries.33

The FAF also uses both Rail Waybill Sample and Waterborne Commerce Statistics. However, modal totals are very different between these datasets and the FAF.33

New versions of the FAF are published after each 5-year Economic Census, which includes CFS. Because methods and data sources have changed with each version, results from FAF1 and FAF2 should not be compared to each other or to FAF3. To support trend analysis, FAF3 now includes estimates for 1997 and 2002 at the state level based on comparable estimation methods. Although the methodology is now consistent between these years and 2007, many of the original data sources remain the same, which, in some cases, can result in values that are not adequate for trend analysis and should be used with care. Below is a summary of major differences between FAF1, FAF2 and FAF3:33, 36

- FAF1 was based on the 1997 Economic Census, included longer distance freight movements for 1998, 2010 and 2020 by all modes except pipeline, and was limited by the use of proprietary data in both publicly available geographic detail and transparency of estimation methods.

- FAF2 was based primarily on data from the 2002 Economic Census, and provided details on freight movement for 2002, forecasts through 2035, included pipelines, removed proprietary restrictions, and was not limited to longer distance movements.

- Unlike the CFS upon which it is built, the FAF2 provides a comprehensive database of freight flow rather than limited static tabulations. Two principal databases are produced: Origin-destination flows of freight by commodity and mode of transport; and, Estimates of flows on major routes and segments of highways, by mode of transportation. These are available for the base year (2002 and 2008) and for forecasts in five year intervals from 2010-2035.

- FAF3 is based primarily on data from the 2007 Economic Census, is the first to include estimates of domestic ton-miles, and adds reprocessed 1997 and 2002 Economic Census data. A brief summary of changes to FAF3 is available.

The FAF does not provide local detail or temporal (seasonal, daily, or hourly) variation in freight flows that are typically necessary to support project planning. While statistical methods exist that allow analysts to disaggregate FAF data from FAF regions to counties or smaller areas, FHWA has not measured any of these methods to establish estimates of reliability or accuracy. FAF estimates of truck tonnage and number of trucks on the network, particularly in regions with multiple routes or significant local traffic between major centers of freight activity, should be supplemented with local data to support local applications.33

Additional information on the data is available on the FAF website and the Freight Analysis Framework 3 User Guide.33

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References

- Website
  - http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf/

- Recommended Guides and Related Resources
  - Freight Analysis Framework 3 User Guide

- Data Dictionary

Data Provider and Contact

Data Provider Agency: U.S. Department of Transportation
Federal Highway Administration

Contact: Freight Management and Operations – Office of Operations
ATTN: Peter Bang
1200 New Jersey Avenue, SE
Washington, D.C. 20590
Telephone: (202) 366-2317 / (202) 366-0408
Email: Peter.Bang@dot.gov
A 12. Highway Performance Monitoring System

Overview

The Highway Performance Monitoring System (HPMS) is a national level highway information system that includes data on the extent, condition, performance, use and operating characteristics of the nation's highways.38

Coverage

All roads open to public travel are reported in HPMS regardless of ownership, including federal, state, county, city, and privately owned roads such as toll facilities. Each state is required to annually furnish all data per the reporting requirements specified in this HPMS Field Manual. The District of Columbia and the Commonwealth of Puerto Rico are treated as states for HPMS reporting purposes. United States Territories (Guam, the Commonwealth of the Northern Marianas, American Samoa, and the Virgin Islands of the United States) are required to annually report limited HPMS Summary Data only, in addition to the separate reporting of certified public road mileage.37

Availability

First Year: 1978 (may vary by State)
Last Year: 2011 (may vary by State)
Frequency: Annually

Uses

The major purpose of the HPMS is to support a data driven decision process within FHWA, the DOT, and the Congress. The HPMS data is used extensively in the analysis of highway system condition, performance, and investment needs that make up the biennial Condition and Performance Reports to Congress. These Reports are used by the Congress in establishing both authorization and appropriation legislation, activities that ultimately determine the scope and size of the Federal-aid Highway Program, and determine the level of Federal highway taxation.38

These data is also used for assessing changes in highway system performance brought about by implementing funded highway system improvement programs. The HPMS data is also widely used throughout the transportation community, including other governmental entities, business and industry, institutions of higher learning for transportation research purposes, and the general public. The HPMS data may also be used for performance measurement purposes in national, state and local transportation decision-making to analyze trade-offs among the different modes of transportation as part of the metropolitan and statewide transportation planning.38

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Data Tables

The national HPMS database has three sources of data:

1. Data that are to be developed and supplied by the states
2. Data that are obtained by the FHWA from other non-state sources
3. Data that are generated or calculated by the FHWA

Data that are to be maintained by FHWA are done so in both geospatial and non-geospatial formats, and is available for use by the states for research and analysis, or to help states as they prepare their HPMS submittal. Data that are generated by FHWA are created during the submittal process. States are responsible for providing the following types of data to FHWA: Full Extent, Sample Panel, Summary, Estimates, and Metadata. The geospatial component of the HPMS data model links the data from these categories to a geographic location on each state’s respective linear referencing system (LRS) network.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Full Extent Data</td>
<td>1978 – 2012</td>
</tr>
<tr>
<td>The Full Extent network consists of the NHS routes (including intermodal connectors) and all other roads, excluding those functionally classified as local or rural minor collector.</td>
<td></td>
</tr>
<tr>
<td>2. Sample Panel Data</td>
<td>1978 – 2012</td>
</tr>
<tr>
<td>Sample Panel Data consists of data items added to the Full Extent data that are reported for a select portion of the total roadway system length. The sampled sections are a fixed sample panel of roadway sections that are monitored from year to year and, when expanded, represent the full extent of the systems that are sampled.</td>
<td></td>
</tr>
<tr>
<td>Summary Data</td>
<td></td>
</tr>
<tr>
<td>Summary Data includes information on travel, system length, and vehicle classification by functional system and area type, in addition to land area and population by area type. The area types include rural, small urban and individual urbanized, non-attainment, and maintenance areas. Following are the data tables making up the Summary Data:</td>
<td></td>
</tr>
<tr>
<td>6. County Summaries</td>
<td>1978 – 2012</td>
</tr>
<tr>
<td>7. NAAQS Summaries</td>
<td>1978 – 2012</td>
</tr>
<tr>
<td>8. Linear Referencing System (LRS) Data</td>
<td>Current</td>
</tr>
<tr>
<td>LRS data provides a spatial reference for the Full Extent and Sample Panel data on selected highway functional systems. This spatial data coupling (i.e., representing roadway attribute data in a spatial format) enables the analysis of HPMS data in a GIS environment. Within the HPMS software, the state-provided LRS represents all roadways in a given state’s road network for a designated set of functional classifications.</td>
<td></td>
</tr>
</tbody>
</table>

*A Availability may vary by state
Data Collection Methods and Limitations

An expansion factor is applied to a stratified random sample of physical roadway sections. The data collected through the HPMS relates to physical characteristics and operating conditions such as pavement condition data, congestion-related data, and traffic data used to determine fatality and injury rates on each of the sampled roadway sections.39

The state department of transportation is responsible for the collection of data and reporting of these data to the FHWA headquarters through FHWA developed and maintained PC-based submittal software. While the FHWA receives, screens, organizes, and uses these data, these are still the state's data and the state is ultimately responsible for the quality of the data.40

Additional information on the data is available on HPMS website and the Highway Performance Monitoring System Field Manual37.

References

- Website
  - http://www.fhwa.dot.gov/policyinformation/hpms.cfm
- Data Dictionary
  - Glossary of Definitions
  - HPMS Reassessment 2010+ Final Report
- Recommended Guides and Related Resources
  - Highway Performance Monitoring System Field Manual
  - HPMS Reassessment 2010+ Final Report
  - See main website for additional resources and information


Data Provider and Contact

Data Provider Agency: U.S. Department of Transportation
Federal Highway Administration and State Department of Transportation Agencies

Contact: Freight Management and Operations – Office of Operations
1200 New Jersey Avenue, SE
Washington, D.C. 20590
Telephone: (202) 366-4000
A 13. Pipeline and Hazardous Material Safety Administration Databases

Overview

Pipeline and Hazardous Materials Safety Administration's (PHMSA) Office of Pipeline Safety collects a variety of data on pipeline and hazardous material failures, incidents and accidents. PHMSA also analyzes the causes and the resulting consequences and reports this data in various categories such as year, state, type, cause, and result.41

Coverage

All reported hazardous material transport and pipeline-related incidents, accidents, injuries, and fatalities in the industry as required by Title 49 of the Code of Federal Regulations (49 CFR Parts 191, 195).

Availability

First Year: 1968
Last Year: Current
Frequency: Monthly, Annually

Uses41

1. To improve industry performance and communications to prevent hazardous material transportation incidents, accidents, injuries, and fatalities.
2. To track data on the frequency of failures, incidents, and accidents.
3. To analyze the causes and the resulting consequences of failures, incidents, and accidents.
4. To plan for inspections and risk assessments.

Data Tables

Table Name

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distribution, Transmission, and Liquid Annual Data</strong></td>
<td></td>
</tr>
<tr>
<td>These files contain general information on hazardous liquid, natural gas</td>
<td></td>
</tr>
<tr>
<td>transmission, and distribution pipeline data reported annual by operators</td>
<td></td>
</tr>
<tr>
<td>of these services</td>
<td></td>
</tr>
<tr>
<td>1. Liquefied Natural Gas (LNG) Annual Data (Parts A to D)</td>
<td>2011 – 2012</td>
</tr>
<tr>
<td>2. Hazardous Liquid Annuals Data (Parts A to O)</td>
<td>2004 – 2012</td>
</tr>
<tr>
<td><strong>Distribution, Transmission, and Liquid Accident and Incident Data</strong></td>
<td></td>
</tr>
<tr>
<td>These files contain information on accidents and incidents related to the</td>
<td></td>
</tr>
<tr>
<td>distribution and transmission of natural gas, hazardous liquid and carbon</td>
<td></td>
</tr>
<tr>
<td>dioxide.</td>
<td></td>
</tr>
<tr>
<td>5. Natural Gas Transmission and Gathering</td>
<td>1970 – present</td>
</tr>
<tr>
<td>7. Hazardous Liquid and Carbon Dioxide</td>
<td>1968 – present</td>
</tr>
<tr>
<td><strong>National Pipeline Mapping System</strong></td>
<td></td>
</tr>
<tr>
<td>The National Pipeline Mapping System (NPMS) is a GIS consisting of</td>
<td></td>
</tr>
<tr>
<td>geospatial data, attribute data, public contact information, and</td>
<td></td>
</tr>
<tr>
<td>metadata pertaining to the interstate and intrastate hazardous liquid</td>
<td></td>
</tr>
<tr>
<td>trunklines and hazardous liquid low-stress lines as well as gas</td>
<td></td>
</tr>
<tr>
<td>transmission pipelines, LNG plants, and hazardous liquid breakout</td>
<td></td>
</tr>
<tr>
<td>tanks jurisdictional to PHMSA.</td>
<td></td>
</tr>
<tr>
<td>8. PHMSA restricts access to the NPMS to federal, state, and local</td>
<td></td>
</tr>
<tr>
<td>government agencies (including emergency responders)</td>
<td></td>
</tr>
</tbody>
</table>

Data Collection Methods and Limitations

The Hazardous Materials Regulations (HMR; 49 CFR Parts 17-180) require certain types of incidents be reported to the PHMSA. Any person in possession of a hazardous material during transportation (usually the carrier), including loading, unloading, and storage incidental to transportation, must report to the DOT if certain conditions are met. Section 171.15 of the HMR requires an immediate telephonic report (within 12 hours) of certain types of hazardous materials incidents. Section 171.16 requires a written report for certain types of hazardous materials incidents within 30 days of the incident, and a follow-up written report within one year of the incident, based on certain circumstances.

Additional information on the data is available on PHMSA website and Hazardous Materials Incident Reporting Guide.

---


References

- Website

- Data Dictionaries and Glossaries
  - Multiple data dictionaries available for different data tables
  - Incident Data Access
  - Glossary of Terms and Definitions
    http://www.phmsa.dot.gov/pipeline/library/glossary
  - Annual Pipeline Incident Statistics for multiple data tables
  - Hazmat Incident Database
    https://hazmatonline.phmsa.dot.gov/incidentReportsSearch/

- Recommended Guides and Related Resources
  - Guide for Preparing Hazardous Materials Incidents Reports
  - History of PHMSA Incident Reporting Criteria
  - Hazmat Safety Library
    http://phmsa.dot.gov/hazmat/library
  - Pipeline Safety Library
    http://phmsa.dot.gov/pipeline/library

Data Provider and Contact

Data Provider Agency: U.S. Department of Transportation
Data Provider Office: Pipeline and Hazardous Materials Safety Administration
Contact: East Building, 2nd Floor
         1200 New Jersey Ave., SE
         Washington, DC 20590
         Phone: (202) 366-4433
A 14. Maritime Statistics

Overview

The Maritime Administration of the U.S. Department of Transportation collects maritime statistics relating to U.S. waterborne foreign trade, worldwide merchant fleets, and vessel calls to U.S. ports, as well as statistics related to the Oil Pollution Act of 1990 (OPA-90)44.

Coverage

Annual statistics of U.S. marine port operations

Availability

First Year: 1994
Last Year: Current
Frequency: Annually

Uses

To determine trends of U.S. marine port operations, trade, and traffic patterns.

Data Tables

Marine port operations data and statistics are available for download on the Maritime Administration website.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet Statistics</td>
<td></td>
</tr>
<tr>
<td>Top 25 Flag of Registry</td>
<td>2010 – current</td>
</tr>
<tr>
<td>U.S. Flag Privately Owned Fleet</td>
<td>Current year</td>
</tr>
<tr>
<td>Trade Statistics</td>
<td></td>
</tr>
<tr>
<td>U.S. Waterborne Foreign Trade by U.S. Custom Districts</td>
<td>2003 – 2012</td>
</tr>
<tr>
<td>U.S. Waterborne Foreign Trade by Trading Partners</td>
<td>2003 – 2012</td>
</tr>
<tr>
<td>Vessel Calls</td>
<td></td>
</tr>
<tr>
<td>Vessels Calls at U.S. Ports by Vessel Type</td>
<td></td>
</tr>
<tr>
<td>OPA-90-Related Statistics</td>
<td></td>
</tr>
<tr>
<td>Tanker Calls at U.S. Ports</td>
<td>2003 – 2011</td>
</tr>
<tr>
<td>Oil Pollution Act of 1990 (OPA-90) Phase-Out</td>
<td>2011</td>
</tr>
<tr>
<td>U.S.-Flag Tank Vessels Removed</td>
<td>1994 – 2013</td>
</tr>
<tr>
<td>U.S. Tank Vessel Trades</td>
<td>1994 – 2010</td>
</tr>
</tbody>
</table>

Data Collection Methods and Limitations

Statistics data is reported from multiple sources such as the Census Bureau's Foreign Trade Division, HIS Inc. Fairplay, Lloyd's List Intelligence, American Bureau of Shipping, Clarkson’s Tanker Register, and the U.S. Army Corps of Engineers.

46 Lloyd's List Intelligence. (2013). Available at http://www.lloydstlistintelligence.com/llint/index.htm;jsessionid=A4BBF18CFD901BD0505DF745D2D4FD3C
References

• Website

• Data Dictionaries and Glossary Terms
  o Glossary of Shipping Terms
  o Data dictionaries and field definitions are available in individual files

• Related Publications
  o See Resources section of U.S. maritime website
    http://www.marad.dot.gov/library_landing_page/Library_landing_page.htm
  o Committee on the Marine Transportation System Data Inventory

Data Provider and Contact

Data Provider Agency: U.S. Department of Transportation
Data Provider Office: Maritime Administration
Contact: ATTN: Gail Perkins
1200 New Jersey Avenue, SE
Washington, DC 20590
Phone: (202) 366-2297
Email: gail.perkins@dot.gov
A 15. Motor Carrier Management Information System

Overview

The Federal Motor Carrier Safety Administration (FMCSA) maintains the Motor Carrier Management Information System (MCMIS). MCMIS contains information on the safety fitness of commercial motor carriers (truck & bus) and hazardous material (HM) shippers subject to the Federal Motor Carrier Safety Regulations (FMCSR) and the HMR. This information is available to the general public through the MCMIS Data Dissemination Program.49

Coverage

This database contains data describing 1) the commercial vehicle crashes reported to the FMCSA, 2) descriptive information on every active company in the MCMIS Census File, and 3) state and federal inspection actions involving motor carriers, shippers of hazardous materials, and transporters of hazardous materials operating in the U.S., and 4) a comprehensive summary of a specific carrier’s national safety performance.

Availability

First Year: 1989
Last Year: Current
Frequency: Annually, biweekly.

Uses49

1. To provide federal and state investigative personnel with national information on interstate carriers and some intrastate carriers to assist in carrying out a specific action on the carrier.
2. To provide a history of safety/compliance reviews, educational contacts, federal safety ratings, and enforcement cases.

Data Tables

There are three main extracts with each extract containing multiple tables. In addition, personal reports can be generated for each specific extract and a summary of several component reports for a specific carrier's national safety performance is available through the Company Safety Profile (CSP). The extracts and reports are available for purchase through the FMCSA Data Dissemination Program.50

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crash File Extract</strong></td>
<td></td>
</tr>
<tr>
<td>This extract contains data describing the commercial vehicle crashes reported to the FMCSA.</td>
<td></td>
</tr>
<tr>
<td>1. Crash Master Table</td>
<td>1989 – current</td>
</tr>
<tr>
<td>2. Crash Carrier Table</td>
<td>1989 – current</td>
</tr>
<tr>
<td>3. Crash Driver Table</td>
<td>1989 – current</td>
</tr>
<tr>
<td>4. Crash Event Table</td>
<td>1989 – current</td>
</tr>
<tr>
<td><strong>Census File Extract</strong></td>
<td></td>
</tr>
<tr>
<td>This extract provides descriptive information on every active company in the MCMIS Census File. The file from which the extract is generated is updated biweekly, and currently contains over one million interstate carriers and HM shippers.</td>
<td></td>
</tr>
<tr>
<td>5. Census Master Table</td>
<td>Updated biweekly</td>
</tr>
<tr>
<td>6. Hazmat Table</td>
<td>Updated biweekly</td>
</tr>
<tr>
<td><strong>Inspection File Extract</strong></td>
<td></td>
</tr>
<tr>
<td>This extract contains data from state and federal inspection actions involving motor carriers, shippers of hazardous materials, and transporters of hazardous materials operating in the U.S. The majority of the inspections were conducted at the roadside by state personnel under the Motor Carrier Safety Assistance Program.</td>
<td></td>
</tr>
<tr>
<td>7. Inspection Table</td>
<td></td>
</tr>
<tr>
<td>8. Carrier Table</td>
<td></td>
</tr>
<tr>
<td>9. Driver Table</td>
<td></td>
</tr>
<tr>
<td>10. Unit Table</td>
<td></td>
</tr>
<tr>
<td>11. Violation Table</td>
<td></td>
</tr>
<tr>
<td>12. Shipper Violation Table</td>
<td></td>
</tr>
<tr>
<td>13. Hazmat Table</td>
<td></td>
</tr>
<tr>
<td>14. Special Studies Table</td>
<td></td>
</tr>
<tr>
<td><strong>Company Safety Profile Documentation</strong></td>
<td></td>
</tr>
<tr>
<td>The Company Safety Profile (CSP) is the most comprehensive single summary of a specific carrier’s national safety performance. It is available as multiple reports.</td>
<td></td>
</tr>
<tr>
<td>R1. Carrier Operations &amp; Safety Ratings</td>
<td></td>
</tr>
<tr>
<td>R2. SafeStat History</td>
<td></td>
</tr>
<tr>
<td>R3. Enforcement Data</td>
<td></td>
</tr>
<tr>
<td>R4. Crashes – 4 Year Summary</td>
<td></td>
</tr>
<tr>
<td>R5. Individual Crashes – Min: 1 Year, Max: 2 Years</td>
<td></td>
</tr>
<tr>
<td>R6. Inspections – 2 Year Summary</td>
<td></td>
</tr>
<tr>
<td>R7. Inspection Characteristics</td>
<td></td>
</tr>
<tr>
<td>R8. Individual Inspections – Min: 1 Year, Max: 2 Years</td>
<td></td>
</tr>
<tr>
<td>R9. Cargo Tank Information</td>
<td></td>
</tr>
<tr>
<td>R10. Reports Not Printed</td>
<td></td>
</tr>
<tr>
<td>R11. State Point Of Contact Listing</td>
<td></td>
</tr>
</tbody>
</table>
Data Collection Methods and Limitations

Sources of information contained in the MCMIS database include the following:

- Motor Carrier Safety/Compliance Reviews and Educational contacts (MCS-151, Parts A-D).
- Enforcement Reports (MCS-32A).
- State-contributed crash reports submitted through SAFETYNET.
- Motor Carrier Driver/Vehicle Inspection Report (MCS-63) and state-submitted inspection reports.
- Telephone contacts and correspondence concerning entities.
- Licensing and Insurance Division (Former Interstate Commerce Commission). Applications for Permanent, Emergency and Temporary Operating Authority.
- Other Users of MCMIS. Department of Defense, American Trucking Association, etc.

References

- Website
  - http://mcmiscatalog.fmcsa.dot.gov/
- Data Dictionaries and Glossary of Terms
  - Data element dictionaries and definitions area available for each table or report listed above
  - Inspection File Glossary of Terms
- Related Information
  - Safety and Fitness Electronic Records (SAFER) System
    http://www.safer.fmcsa.dot.gov/

Data Provider and Contact

Data Provider Agency: U.S. Department of Transportation
Federal Motor Carrier Safety Administration

Contact: Computing Technologies, Inc.
MCMIS Data Dissemination Program
P.O. Box 3248
Merrifield, VA 22116-3248
Phone: 703-280-4001
Federal Relay Service Number for TTY is 1-800-877-8339

Overview

The Federal Motor Carrier Safety Administration's (FMCSA) SMS [Safety Measurement System] is an automated system that quantifies the on-road safety performance of motor carriers so that FMCSA can identify unsafe carriers, prioritize them for intervention, and monitor if a motor carrier's safety and compliance problem is improving.51

The SMS is not a Safety Fitness Determination nor is it a safety rating pursuant to 49 CFR Part 385; also, it does not represent FMCSA's final determination about the safety of the carrier. Use of the SMS for purposes other than those identified above may produce unintended results and inaccurate conclusions.51

Coverage

All the FMCSA-reportable crashes, without any determination as to responsibility, are included in the SMS. A crash is reported to FMCSA if it involves the following:

- Any truck having a gross vehicle weight rating of more than 10,000 pounds or a gross combination weight rating over 10,000 pounds used on public highways; OR
- Any motor vehicle designed to transport more than eight people, including the driver; OR
- Any vehicle displaying a Hazardous Materials (HM) placard (regardless of weight). A vehicle discovered to be transporting HM without a required placard should also be included.

AND

That vehicle is involved in a crash while operating on a roadway customarily open to the public, which results in any of the following:

- A fatality: any person(s) killed in or outside of any vehicle (truck, bus, car, etc.) involved in the crash or who dies within 30 days of the crash as a result of an injury sustained in the crash; OR
- An injury: any person(s) injured as a result of the crash who immediately receives medical treatment away from the crash scene; OR
- A tow-away: any motor vehicle (truck, bus, car, etc.) disabled as a result of the crash and transported away from the scene by a tow truck or other vehicle.51

Availability

First Year: Unknown
Last Year: Current
Frequency: Monthly

Note: A snapshot of the data is taken on the third or last Friday of each month and then it takes approximately 10 days to process and validate the data. Once validated, the results are uploaded to the SMS website.51

Uses

The FMCSA uses the SMS to:\(^5^1\)

- Identify motor carriers for interventions, such as warning letters, investigations, or roadside inspections.
- Determine the specific safety problems of the carrier to focus on during an intervention.
- Monitor motor carrier noncompliance issues over time.

Data Tables

Two main datasets are available for download as zipped files on the FMCSA SMS website. The zipped files containing a comma delimited “flat” data file and a text file describing the contents of the data file (data dictionary).

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Carrier SMS Results</td>
<td></td>
</tr>
<tr>
<td>These files contain the current SMS results for all active motor carriers with inspection summary data and the SMS results for each publicly available Behavior Analysis and Safety Improvement Category (BASIC) for each carrier with an active U.S. DOT Number.</td>
<td></td>
</tr>
<tr>
<td>1. SMS summary results for active interstate carriers and active intrastate hazmat motor carriers</td>
<td>Current</td>
</tr>
<tr>
<td>2. SMS summary results for active intrastate non-hazmat motor carriers</td>
<td>Current</td>
</tr>
<tr>
<td>Motor Carrier Census Information</td>
<td></td>
</tr>
<tr>
<td>This file contains a subset of FMCSA registration data for all motor carriers with the following information: U.S. DOT Number, company name, address, contacts, number of power units, number of drivers, and other registration information</td>
<td></td>
</tr>
<tr>
<td>3. Motor Carrier Census Information</td>
<td>Current</td>
</tr>
</tbody>
</table>

In addition to the above, summary SMS reports can be generated online through the Summary Reporting system. The report provides monthly summary information by service center, FMCSA Division, and state and counties of carrier operations such as number of registered U.S. DOT carriers, number of power units, number of unsafe driving reports, Hours-of-Service (HOS) compliance, driver fitness and drugs/alcohol use.\(^5^2\)

Data Collection Methods and Limitations

SMS gets a monthly snapshot of data from the FMCSA national database, the Motor Carrier Management Information System (MCMIS). SMS pulls the previous 24 months of roadside inspection data from MCMIS and state-reported commercial motor vehicle crashes and motor carrier registration/Census data and results from federal and state investigations conducted within the previous 12 months.51

References

- Website
  - http://ai.fmcsa.dot.gov/sms/
- Data Dictionaries
  - Data element dictionaries and definitions available for each data file
- Related Information
  - SMS Information Center
    http://ai.fmcsa.dot.gov/sms/InfoCenter/
  - Carrier Safety Measurement System Factsheet:
  - CSA Carrier Safety Measurement System Methodology
  - SMS Violation Severity By BASIC – SMS Methodology, Appendix A
    https://csa.fmcsa.dot.gov/Documents/SMS_AppendixA_ViolationsList.xlsx
  - DataQs
    http://dataqs.fmcsa.dot.gov

Data Provider and Contact

Data Provider Agency: U.S. Department of Transportation
Federal Motor Carrier Safety Administration

Contact: John A. Volpe National Transportation Systems Center,
55 Broadway
Cambridge, MA 02142
A 17. National Agricultural Statistics Service

Overview

The U.S. Department of Agriculture (USDA) National Agricultural Statistics Service (NASS) conducts hundreds of surveys every year and prepares reports covering virtually every aspect of U.S. agriculture such as production and supplies of food and fiber, prices paid and received by farmers, farm labor and wages, farm finances, chemical use, and changes in the demographics of U.S. producers.53

Coverage

USDA data and additional agricultural statistics for every state and county in the United States are available through the USDA’s QuickStats online tool. Geospatial data services are also offered through its CropScape visualization and web-based data dissemination tool.53

Availability

First Year: 1850
Last Year: Current
Frequency: Weekly, Annually

Uses

Producers, farm organizations, agribusinesses, lawmakers, and government agencies all rely heavily on the information produced by NASS.

- NASS statistical information on acreage, production, stocks, prices, and income is essential for the smooth operation of Federal farm programs.
- NASS data is indispensable for planning and administering related federal and state programs in such areas as consumer protection, conservation and environmental quality, trade, education, and recreation.
- NASS data ensures an orderly flow of goods and services among agriculture's producing, processing, and marketing sectors.
- Reliable, timely, and detailed crop and livestock statistics help to maintain a stable economic climate and minimize the uncertainties and risks associated with the production, marketing, and distribution of commodities.
- Farmers and ranchers rely on NASS reports in making all sorts of production and marketing decisions. The reports help them decide on specific production plans, such as how much corn to plant, how many cattle to raise, and when to sell.

NASS estimates and forecasts are greatly relied upon by the transportation sector, warehouse and storage

53 http://www.nass.usda.gov/About_NASS/index.asp
companies, banks and other lending institutions, commodity traders, and food processors.

- Those in agribusiness who provide farmers with seeds, equipment, chemicals, and other goods and services study the reports when planning their marketing strategies.
- Analysts transform the statistics into projections of coming trends, interpretations of the trends' economic implications, and evaluations of alternative courses of action for producers, agribusinesses, and policy makers. These analyses multiply the usefulness of NASS statistics.54

**Data Tables**

The QuickStats online tool is the central database housing all NASS survey data and the Census of Agriculture data. It contains more than 24 million records in the areas of animals and products, crops, demographics, economics, and environmental land use. Raw QuickStats data is also available for download.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quick Stats 2.0</td>
<td>1850 – current</td>
</tr>
<tr>
<td>Quick Stats is a web-based application that gives you the ability to query the agricultural census and survey statistics</td>
<td></td>
</tr>
<tr>
<td>2. CropScape</td>
<td>1997 – current</td>
</tr>
<tr>
<td>CropScape is a geospatial data service that offers advanced tools such as interactive visualization, web-based data dissemination and geospatial queries, and automated data delivery to systems such as Google Earth.</td>
<td></td>
</tr>
</tbody>
</table>

**Data Collection Methods and Limitations**

NASS conducts the Census of Agriculture (every 5 years) and other surveys (annually) to collect information relating to agriculture production, inventories, fertilizer use, and expenditures, among others.

The Census of Agriculture is a complete count of U.S. farms and ranches and the people who operate them. The Census looks at land use and ownership, operator characteristics, production practices, income, and expenditures. Survey participants include farmers and ranchers, livestock feeders, slaughterhouse managers, grain elevator operators, and other agribusinesses that make extensive use of the estimates.

For additional information on Census of Agriculture, NASS surveys, data quality, methodology, and programs, refer to the Census of Agriculture website55 and the


Understanding Agricultural Statistics webpage.\textsuperscript{56}

References

- Website

- Data Dictionaries
  - Quick Stats Column Definitions
    http://quickstats.nass.usda.gov/param_define
  - Raw QuickStats Data

- Related Information
  - Understanding Agricultural Statistics
  - CropScape General Information
    http://www.nass.usda.gov/research/Cropland/sarsfaqs2.html
  - Frequently Asked Questions

Data Provider and Contact

- Data Provider Agency: U.S. Department of Agriculture
- Contact: National Agricultural Statistics Service
  1400 Independence Ave., SW
  Washington, DC 20250
  Phone: (800) 727-9540
  Email: nass@nass.usda.gov

A 18. North American Transborder Freight Database

Overview

The North American Transborder Freight Database, available since April 1993, contains freight flow data by commodity type and by mode of transportation (rail, truck, pipeline, air, vessel, and other) for U.S. exports to and imports from Canada and Mexico.57

Coverage

Beginning with the 1997 data, the North American Transborder Freight Data represents official U.S. trade with Canada and Mexico for shipments that entered or exited the United States by surface modes of transport (other than air or maritime vessel). The data from April 1993 to December 1996 included official U.S. trade with Canada and Mexico by surface modes and transshipments that moved from a third country through Canada or Mexico to the United States or from the United States to a third country through Canada or Mexico. For this time period, it was not possible to separate transshipment activity from the official trade activity at the detailed level. Due to customer requests, BTS discontinued the inclusion of transshipment activity in the North American Transborder Freight Data beginning with the January 1997 data month. This allows customers to perform comparable trade analyses by mode of transportation.57

Availability

<table>
<thead>
<tr>
<th>First Year:</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Year:</td>
<td>Current</td>
</tr>
<tr>
<td>Frequency:</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

Uses

The purpose of the database is to provide transportation information on North American trade flows. This type of information is being used to monitor freight flows and changes to these since the signing of the North American Free Trade Agreement (NAFTA) by the United States, Canada and Mexico in December 1992 and its entry into force on January 1, 1994. The database is also being used for trade corridor studies, transportation infrastructure planning, marketing and logistics plans and other purposes. It allows users to analyze movement of merchandise by all land modes, waterborne vessels, and by air carriers.57

Data Tables

BTS provides access to the data through an interactive searchable interface. Raw data is also available for download.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Indexed Freight Flow Data</strong></td>
<td>2004 – current</td>
</tr>
<tr>
<td>This table contains foreign trade statistics deflated by Bureau of Labor</td>
<td></td>
</tr>
<tr>
<td>Statistics’ Import/Export Price Indexes. These indexes are useful for</td>
<td></td>
</tr>
<tr>
<td>measuring U.S. economic competitiveness, analyzing exchange rates, and</td>
<td></td>
</tr>
<tr>
<td>analyzing import prices by locality of origin. 58</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. U.S. Transshipments through Canada or Mexico</strong></td>
<td>2006 – current</td>
</tr>
<tr>
<td>U.S. transshipment data provides information on U.S. international</td>
<td></td>
</tr>
<tr>
<td>merchandise transshipped through an intermediary country (Canada or</td>
<td></td>
</tr>
<tr>
<td>Mexico) prior to reaching its ultimate destination, as well as</td>
<td></td>
</tr>
<tr>
<td>shipments from their ultimate origin through Canada or Mexico to the U.S.</td>
<td></td>
</tr>
<tr>
<td>59 The data is available online as:</td>
<td></td>
</tr>
<tr>
<td>• U.S. State of export or import &amp; U.S. Port of entry/exit (State -</td>
<td></td>
</tr>
<tr>
<td>Port Table)</td>
<td></td>
</tr>
<tr>
<td>• U.S. State of export or import &amp; Commodity (State - Commodity Table)</td>
<td></td>
</tr>
<tr>
<td>• U.S. Port of entry/exit &amp; Commodity (Port - Commodity Table)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>**3. Value to Weight Ratios by Transportation Mode and Commodity (Import</td>
<td>2004 – current</td>
</tr>
<tr>
<td>Only)**</td>
<td></td>
</tr>
<tr>
<td>Annual trade ratios of value to weight (USD/Kg) between the U.S. and</td>
<td></td>
</tr>
<tr>
<td>NAFTA trading partners</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>**4. U.S. States Trade with Canada and Mexico through a Specific Port or</td>
<td>1994 – current</td>
</tr>
<tr>
<td>in a Specific Commodity**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>This data provides port of entry/exit data including detailed selection</td>
<td></td>
</tr>
<tr>
<td>of commodities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Origin/Destination**</td>
<td></td>
</tr>
<tr>
<td>This data provides state origin/destination data excluding detailed</td>
<td></td>
</tr>
<tr>
<td>selection of commodities.</td>
<td></td>
</tr>
</tbody>
</table>

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60 Commodity data are not provided by state of origin/destination and by port of entry/exit on the same database because of confidentiality restrictions.
Data Collection Methods and Limitations

The North American Transborder Freight Dataset is extracted from the Census Foreign Trade Statistics Program. Import and export data is captured from administrative records required by the Departments of Commerce and Treasury. Historically, these data were obtained from import and export paper documents that the U.S. Customs Service (Customs) collected at a port of entry or exit. However, an increasing amount of import and export statistical information is now being captured electronically.57

Imports

For imports from Canada and Mexico, over 96 percent of entries are collected electronically. U.S. imports of merchandise are compiled primarily from automated data submitted through the U.S. Customs' Automated Commercial System. Data is compiled also from import entry summary forms, warehouse withdrawal forms and Foreign Trade Zone documents as required by law to be filed with the U.S. Customs and Border Protection. Data on imports of electricity and natural gas from Canada are obtained from Canadian sources.57

Exports

U.S exports of merchandise are compiled primarily from the Automated Export System (AES), paper Shipper's Export Declarations (SEDs), and Canadian data provided by Statistics Canada. The United States is substituting Canadian import statistics for U.S. exports to Canada in accordance with a 1987 Memorandum of Understanding signed by the Census Bureau, U.S. Customs and Border Protection, Canadian Customs, and Statistics Canada. This data exchange includes only U.S. exports destined for Canada and does not include shipments destined for third countries by routes passing through Canada.57

Import and export data is a complete enumeration of documents collected by U.S. Customs and Border Protection and are not subject to sampling errors. However, while quality assurance procedures are performed at every stage of collection, processing, and tabulation, the data is still subject to several types of non-sampling errors. The most significant of these include reporting errors, undocumented shipments, timeliness, data capture errors, transiting goods, and underestimation of low-valued transactions.57

Additional information on the data is available on North American Transportation Freight Data website.57

References

- Website
  - http://1bts.rita.dot.gov/programs/international/transborder/

- Data Dictionaries
  - TransBorder Freight Data Program Documentation
    http://1bts.rita.dot.gov/programs/international/transborder/PDF/TransBorderFreightDataProgram.pdf
  - Monthly and Annual Summary TransBorder Raw Data Download
    http://transborder.bts.gov/programs/international/transborder/TBDR_RawDataDownload.html

- Related Publications
  - Frequently Asked Questions
    http://transborder.bts.gov/programs/international/transborder/TBDR_FAQs.html
### Data Provider and Contact

**Data Provider Agency:** U.S. Department of Transportation  
Research and Innovative Technology Administration  
Bureau of Transportation Statistics

**Contact:**  
BTS Info Services  
Phone: 800-853-1351  
Email: RITAINfo@dot.gov
A 19. Service Annual Survey

Overview

The Service Annual Survey provides estimates of revenue and other measures for most traditional service industries. The United States Code, Title 13, authorizes this survey and provides for mandatory responses.

Coverage

The Service Annual Survey covers portions or all of the industries in the following sectors:

- Utilities (NAICS 22)
- Transportation and Warehousing (NAICS 48-49)
- Information services (NAICS 51)
- Finance and insurance (NAICS 52)
- Real estate and rental and leasing (NAICS 53)
- Professional, scientific, and technical services (NAICS 54)
- Administrative and support, waste management and remediation services (NAICS 56)
- Educational services (NAICS 61)
- Health care and social assistance (NAICS 62)
- Art, entertainment, and recreation (NAICS 71)
- Other services (except public administration) (NAICS 81)

Availability

First Year: 1985
Last Year: 2012
Frequency: Prior to 1982, the survey was conducted monthly and since that time it has been conducted annually. A new sample is introduced roughly every 5 to 7 years.

Uses

The Bureau of Economic Analysis uses these data in its preparation of national income and product accounts, and its benchmark and annual input-output tables. The Bureau of Labor Statistics uses the data as input to its producer price indexes and in developing productivity measurements. The Centers for Medicare and Medicaid Services (CMS) uses the data to estimate expenditures for the National Health Accounts. The Coalition of Service Industries uses data for general research and planning.

Trade and professional organizations use the estimates to analyze industry trends and benchmark their own statistical programs, develop forecasts, and evaluate regulatory requirements. The media use estimates for news reports and background information. Private businesses use the estimates to measure market share; analyze business potential; and plan investment decisions.
**Data Tables**

The SAS data is available for download on the Census Bureau’s web site. The 2012 Annual Services report was released on December 18, 2013 at 10:00a.m.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Estimated Revenue for Employer and Non-employer Firms</td>
<td>1998-2012</td>
</tr>
<tr>
<td>2. Estimated Revenue by Tax Status for Employer Firms</td>
<td>1998-2012</td>
</tr>
<tr>
<td>3. Estimated Expense for Employer Firms</td>
<td>1998-2012</td>
</tr>
<tr>
<td>4. Estimated Sources of Revenue for Employer Firms</td>
<td>2005-2012</td>
</tr>
<tr>
<td>5. Estimated Selected Expenses for Employer Firms</td>
<td>2007-2012</td>
</tr>
<tr>
<td>6. Estimated Export Revenue for Employer Firms</td>
<td>2010-2012</td>
</tr>
<tr>
<td>7. Estimated End of Year Inventories for Employer Firms</td>
<td>2010-2012</td>
</tr>
<tr>
<td>8. Estimated Revenue by Product and Class of Customer for Employer Firms</td>
<td>2010-2012</td>
</tr>
</tbody>
</table>

**Data Collection Method and Limitations**

This is a mail-out/mail-back survey of approximately 72,000 selected service businesses with paid employees; supplemented by administrative records data or imputed values to account for non-employer and certain other businesses. To be eligible for the list sample, service businesses must be in the Business Register List (BR), which contains all Employer Identification Numbers (EINs) for listed businesses and all locations of multi-establishment companies. EINs may represent one or more establishments and firms may have one or more EINs.

In the initial sampling, companies are stratified by major and minor kind of business, and by estimated receipts or revenue. All companies with total receipts above applicable size cutoffs are included in the survey and report for all their service industry locations. In a second stage, EINs of unselected companies are stratified by major kind of business and receipts or revenue. Within each stratum a simple random sample of EINs is selected.

The initial sample is updated quarterly to reflect births and deaths, adding new employer businesses identified in the business and professional classification survey, and dropping firms and EINs that are no longer active. During interim periods, service non-employer and other businesses are represented by administrative records data or imputed values.

**References**

- Website
  https://bhs.econ.census.gov/bhs/sas/index.html
- Data Dictionaries and Definitions
  - Data Forms

---


http://www.census.gov/services/sas/get_forms.html
  o Annual & Quarterly Services Reports  
    http://www.census.gov/services/index.html
  o Service Annual Survey Historical Data  
    http://www.census.gov/services/sas/historic_data.html
 o Annual & Quarterly Services Definitions  
    http://www.census.gov/services/definitions.html#NAICS

• Related Publications
  o Frequently Asked Questions  
    https://bhs.econ.census.gov/bhs/sas/faq.html
  o Secure Messaging Center Guideline Videos  
    https://bhs.econ.census.gov/bhs/sas/videos.html

Data Provider and Contact

Data Provider Agency:       U.S. Department of Commerce
                          U.S. Census Bureau
Contact:                     Service Annual Survey Staff
                            Phone: (877) 787-9860
A 20. Survey of Business Owners

Overview

The Survey of Business Owners (SBO) provides the only comprehensive, regularly collected source of information on selected economic and demographic characteristics for businesses and business owners by gender, ethnicity, race, and veteran status. Title 13 of the United States Code authorizes this survey and provides for mandatory responses.63

Coverage

Included are all nonfarm businesses filing Internal Revenue Service tax forms as individual proprietorships, partnerships, or any type of corporation, and with receipts of $1,000 or more. The SBO covers both firms with paid employees and firms with no paid employees. The SBO is conducted on a company or firm basis rather than an establishment basis. A company or firm is a business consisting of one or more domestic establishments that the reporting firm specified under its ownership or control.63

Estimates include the number of employer and non-employer firms, sales and receipts, annual payroll, and employment. Data aggregates are presented by gender, ethnicity, race, and veteran status for the United States by 2007 North American Industry Classification System (NAICS), kind of business, states, metropolitan and micropolitan statistical areas, counties, places, and employment and receipts size.63

The SBO covers 20 NAICS industries, except those classified as: crop and animal production (NAICS 111, 112); scheduled passenger air transportation (NAICS 481111); rail transportation (NAICS 482); postal service (NAICS 491); funds, trusts, and other financial vehicles (NAICS 525); religious, grantmaking, civic, professional, and similar organizations (NAICS 813); private households (NAICS 814); public administration (NAICS 92).63

Availability

First Year: 1972
Last Year: 2007
Frequency: Data is collected every 5 years since 1972, for years ending in 2 and 7 as part of the economic census. The 2012 survey is currently in progress.

Uses

Government program officials, industry organization leaders, economic and social analysts, and business entrepreneurs routinely use the SBO statistics. Examples of data use include those by:

- The Small Business Administration (SBA) and the Minority Business Development Agency (MBDA) to assess business assistance needs and allocate available program resources.

- Local government commissions on small and disadvantaged businesses to establish and evaluate

contract procurement practices.

- Federal, state, and local government agencies as a framework for planning, directing, and assessing programs that promotes the activities of disadvantaged groups.

- A national women-owned business trade association to assess women-owned businesses by industry and area and to educate other industry associations, corporations, and government entities.

- Consultants and researchers to analyze long-term economic and demographic shifts and differences in ownership and performance among geographic areas.

- Individual business owners to analyze their operations in comparison to similar firms, compute their market share, and assess their growth and future prospects.64

**Data Tables**

The SBO data is available for download on the Census Bureau’s web site65 and American FactFinder system16. The two main sources of data are the results from the 2007 SBO and the SBO Public Use Microdata Sample (PUMS).

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBO data is presented by gender, ethnicity, race, veteran status, geography, industry, firm receipts size and firm employment size. Data is available for download on the American FactFinder website.</td>
<td></td>
</tr>
<tr>
<td>2. SBO Public Use Microdata Sample (PUMS)</td>
<td>2007</td>
</tr>
<tr>
<td>The SBO PUMS was created using responses from the 2007 SBO and provides access to survey data at a level of detail below that of the currently published SBO results. The SBO PUMS will allow researchers to create customized tables and models and to study entrepreneurial activity and the relationships between business characteristics such as access to capital, firm size, employer-paid benefits, minority- and women-ownership, and firm age.66</td>
<td></td>
</tr>
</tbody>
</table>

**Data Collection Method and Limitations**

To design the SBO sample, the Census Bureau uses the following sources of information to estimate the probability that a business is minority- or women-owned:


• Administrative data from the Social Security Administration.
• Lists of minority- and women-owned businesses published in syndicated magazines, located on the Internet, or disseminated by trade or special interest groups.
• Word strings in the company name indicating possible minority ownership.
• Racial distributions for various state-industry classes and racial distributions for various Zip Codes.
• Gender, ethnicity, race, and veteran status responses of a single-owner business to a previous SBO or to the 2000 Decennial Census.

These probabilities are then used to place each firm in the SBO universe in one of nine frames for sampling. The SBO universe is stratified by state, industry, frame, and whether the company has paid employees. The Census Bureau selects large companies, including those operating in more than one state, with certainty. These companies are selected based on volume of sales, payroll, or number of paid employees. All certainty cases are sure to be selected and represent only themselves (i.e., have a selection probability of one and a sampling weight of one). The certainty cutoffs vary by sampling stratum, and each stratum is sampled at varying rates, depending on the number of firms in a particular industry in a particular state. The remaining universe is subjected to stratified systematic random sampling.63

Data is not necessarily comparable between survey periods. Additional information on the data collection methodology is available on the SBO website.67

References

• Website
  o www.census.gov/econ/sbo.
• Data Dictionaries and Definitions
  o PUMS file download
    http://www.census.gov/econ/sbo/pums.html
  o Definition of Common Terms
    http://www.census.gov/econ/sbo/definitions.html
• Related Publications
  o Data Users Guide for the Public Use Microdata Sample file
  o Ownership Characteristics of Classifiable U.S. Exporting Firms
    http://www.census.gov/econ/sbo/export07/index.html
  o Frequently Asked Questions
    http://www.census.gov/econ/sbo/faq.html

Data Provider and Contact

Data Provider Agency: U.S. Department of Commerce
U.S. Census Bureau

Contact:
Survey of Business Owners Staff
4600 Silver Hill Road Stop 6400
Washington, DC 20233
Phone: (888) 225-4022 or (301) 763-3316
Email: csd.sbo@census.gov
A 21. Topologically Integrated Geographic Encoding and Referencing

Overview

The Topologically Integrated Geographic Encoding and Referencing (TIGER) database, maintained by the U.S. Census Bureau, is made up of severable file types containing census geographic data, and information such as geographical boundaries, roads, rivers, lakes, cities, census blocks groups, and census tracts.

Coverage

Complete coverage of the United States, Puerto Rico, the U.S. Virgin Islands, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the Midway Islands.

Availability

First Year: 1992
Last Year: 2013
Frequency: Annual

Uses

1. To provide a selection of geographic area choices for Census data users.
2. To assist the Census Bureau with its data collection activities.
3. To assist tribal, state, and local agencies to determine the geographic levels for which officials need decennial census data to accomplish decision-making, regulatory, and legislative mandates.
4. To ensure nationwide consistency and widespread consensus on geographic data and new geographic units by various data users.

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Data Tables

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. TIGER/Line Shapefiles</strong></td>
<td>1992 – current</td>
</tr>
<tr>
<td>The TIGER/Line Shapefiles are extracts of selected geographic and cartographic information from the U.S. Census Bureau's Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) database. The Shapefiles include information for the fifty states, the District of Columbia, Puerto Rico, and the Island Areas (American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the United States Virgin Islands). The Shapefiles include polygon boundaries of geographic areas and features, linear features including roads and hydrography, and point features (Total of 43 files).</td>
<td></td>
</tr>
</tbody>
</table>

| **2. TIGER Geodatabases** | Current |
| The TIGER Geodatabases are spatial extracts from the Census Bureau’s MAF/TIGER database for use with Esri’s ArcGIS. The geodatabases contain national coverage (for geographic boundaries or features) or state coverage (boundaries within state). These files do not include demographic data, but they contain geographic entity codes that can be linked to the Census Bureau’s demographic data, available on American FactFinder. | |

| **3. TIGER/Line Shapefiles & Geodatabases with Demographic Data** | 2007–2011 |
| These are a limited set of TIGER/Line Shapefiles pre-joined with demographic data in geodatabase and Shapefile format. | |

| **4. Cartographic Boundary Files** | 2010 |
| The cartographic boundary files are simplified representations of selected geographic areas from the Census Bureau’s MAF/TIGER geographic database. These boundary files are specifically designed for small scale thematic mapping. | |

| **5. KML Prototype Files** | 2010 |
| These files are still in the prototype phase and may be developed further based on demand. KML files are compatible with tools such as Google Earth and Google Maps. | |

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The TIGERweb web-based application allows users to visualize TIGER data without having to download the data. The application allows users to select features and view their attributes, to search for features by name or geocode, and to identify features by selecting them from a map.

**Data Collection Method and Limitations**

The Census Bureau obtains data from numerous sources to update the MAF/TIGER database. Initially, the Census Bureau used the U.S. Geological Survey (USGS) 1:100,000-scale Digital Line Graph (DLG), USGS 1:24,000-scale quadrangles, the Census Bureau's 1980 geographic base files (GBF/DIMEFiles), and a variety of miscellaneous maps for selected areas outside the contiguous 48 states to create the TIGER database (predecessor to the current MAF/TIGER database). The Census Bureau makes additions and corrections to its database mainly through partner supplied data (federal, state, local, and private partners), the use of aerial imagery, and fieldwork. The Census Bureau has numerous partner programs where federal, state, and local government partners’ supply updates to boundaries, features, and addresses. The Census Bureau underwent a major realignment of the TIGER database in the 2000’s to improve the spatial accuracy of the road network. Since this realignment, the Census Bureau has added quality standards for data sources used to update the MAF/TIGER database.

**References**

- **Website**
  - http://www.census.gov/geo/maps-data/data/tiger.html

- **Data Dictionaries**
  - TIGER/Line Shapefiles Technical Documentation
  - 2013 TIGER Geodatabase Documentation

- **Related Publications**
  - Geographic Areas Reference Manual
    - http://www.census.gov/geo/reference/garm.html
  - Working with TIGER/Line Shapefiles How-To Guides
    - http://www.census.gov/geo/education/howtos.html
  - Definitions and References
    - http://www.census.gov/geo/reference/

---


Data Provider and Contact

Data Provider Agency: U.S. Department of Commerce
                     U.S. Census Bureau
Contact: Geography Division
        4600 Silver Hill Road
        Washington, DC 20233-7400
        Phone: (301) 763-1128
        Email: geo.tiger@census.gov
A 22. U.S. Economic Accounts

Overview

The U.S. Economic Accounts prepared by the Bureau of Economic Analysis (BEA) is made up of several files that present a broad, integrated picture of the U.S. economy according to international standards for such accounts.76

Coverage

It includes national, international, regional, and industry accounts on closely watched statistics on key issues such as U.S. economic growth, regional economic development, interindustry relationships, and the nation’s position in the world economy. BEA’s economic statistics include such vital measures as gross domestic product (GDP), personal income and outlays, corporate profits, personal income and GDP by state and metropolitan area, balance of payments, and GDP by industry.76

Availability

First year: 1925
Last year: Current
Frequency: Annually

Uses77

1. To enable government and business decision-makers, researchers, and the American public to follow and understand the performance of the nation’s economy.
2. To influence decisions made by government officials, business people, households, and individuals that affect monetary policy, tax and budget projections, and business investment plans.

Data Tables

U.S. Economic Accounts data is available for download through the BEA website.


<table>
<thead>
<tr>
<th><strong>Table Name</strong></th>
<th><strong>Availability</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Economic Accounts</strong></td>
<td></td>
</tr>
<tr>
<td>These files contain information about the structure and growth of the U.S. economy. The core of these accounts is the national income and product accounts, which are organized into several summary accounts.</td>
<td></td>
</tr>
<tr>
<td>2. Personal Income and Outlays</td>
<td>1929-2013</td>
</tr>
<tr>
<td>3. Corporate Profits</td>
<td>2002-2012</td>
</tr>
<tr>
<td><strong>International Economic Accounts</strong></td>
<td></td>
</tr>
<tr>
<td>These files contain information on about the relationship between the U.S. economy and the rest of the world, and provide information on international transactions, trade in goods and services, international services, the U.S. international investment position, and direct investment and the activities of multinational companies.</td>
<td></td>
</tr>
<tr>
<td>5. International Transactions Accounts (Balance of Payments)</td>
<td>1960-2013</td>
</tr>
<tr>
<td>6. Trade in Goods and Services</td>
<td>1992-2013</td>
</tr>
<tr>
<td>9. Direct Investment and the Activities of Multinational Companies</td>
<td>1982-2012</td>
</tr>
<tr>
<td><strong>Regional Economic Accounts</strong></td>
<td></td>
</tr>
<tr>
<td>This file contains information on about the geographic distribution of the U.S. economic activity and growth and provides statistics on GDP for states and metropolitan areas, personal income for states and local areas, and regional economic multipliers for any county or group of counties.</td>
<td></td>
</tr>
<tr>
<td>10. GDP by State</td>
<td>1963-2012</td>
</tr>
<tr>
<td>11. GDP by Metropolitan Area</td>
<td>2001-2012</td>
</tr>
<tr>
<td>12. State Personal Income</td>
<td>1948-2013</td>
</tr>
<tr>
<td>13. Local Area Personal Income</td>
<td>1969-2011</td>
</tr>
<tr>
<td>14. Regional Input-Output Multipliers</td>
<td></td>
</tr>
<tr>
<td><strong>Industry Economic Accounts</strong></td>
<td></td>
</tr>
<tr>
<td>This file contains information about the relationships among the industries that make up the U.S. economy and consists of the annual industry accounts, the benchmark input-output accounts, and the U.S. travel and tourism satellite accounts.</td>
<td></td>
</tr>
<tr>
<td>15. GDP by Industry Accounts</td>
<td>2002-2011</td>
</tr>
</tbody>
</table>
Data Collection Method and Limitations

Each account, along with its various sub-accounts, has its own methodology for data collection and sorting. Please refer to the Methodology section of each account on the main website for more information.

References

- Website
  - http://www.bea.gov/

- Data Dictionaries
  - Each account has its own dictionary that can be accessed through each sub-section of the main website.
    - Glossary of National Income and Product Accounts
    - Glossary of terms specific to the Regional Program
      http://www.bea.gov/regional/definitions/
    - Definitions and References
      http://www.bea.gov/glossary/glossary.cfm

- Related Publications
  - Measuring The Nation’s Economy- A Guide to the Bureau of Economic Analysis
  - Concepts and Methods of the National Income and Product Accounts

Data Provider and Contact

Data Provider Agency: U.S. Department of Commerce
Bureau of Economic Analysis

Contact: Public Information Office
1441 L Street NW
Washington, DC 20230
Phone: (202) 606-9900
A 23. U.S. Waterway Data

Overview

The U.S. Waterway Data is a collection of data related to the navigable waters in the United States, including inland waterways, off-shore waters, the Great Lakes, and the Saint Lawrence Seaway. Data on commerce, facilities, locks, dredging, imports and exports, and accidents are included along with the geographic waterway network.78

Coverage

Complete coverage of all navigable waterways and associated facilities and operations in the United States

Availability

First Year: 1990
Last Year: Current
Frequency: Varies by data file—annual, monthly, continuous as data is available

Uses

The U.S. Waterway Data was developed by the U.S. Army Corps of Engineers Navigation Data Center to:78
1. Provide public access to national waterway data.
2. Foster interagency and intra-agency cooperation through data sharing.
3. Provide a mechanism to integrate waterway data (U.S. Army Corps of Engineers Port/Facility and U.S. Coast Guard Accident Data, for example).
4. Provide a basis for intermodal analysis.
5. Assist standardization of waterway entity definitions (Ports/Facilities, Locks, etc.).
6. Provide public access to the National Waterway Network, which can be used as a basemap to support graphical overlays and analysis with other spatial data (waterway and modal network/facility databases, for example).
7. Provide reliable data to support future waterway and intermodal applications.

Data Tables

The Navigation Data Center website provides data in standard file formats (CSV, DBF,
XLS) that can be easily imported into other software tools such as spreadsheets, databases, and GIS. Supporting documentation and data dictionaries are available for each data file.78

<table>
<thead>
<tr>
<th><strong>Table Name</strong></th>
<th><strong>Availability</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dredging Information System</strong></td>
<td></td>
</tr>
<tr>
<td>These files contain information about dredging activities performed by the Corps-owned/-operated dredges, and awarded dredging contracts advertised by the Corps of Engineers.</td>
<td></td>
</tr>
<tr>
<td><strong>Vessel Entrances and Clearances</strong></td>
<td></td>
</tr>
<tr>
<td>These files contain information on vessel entrance and clearance records, vessel’s full name, type of vessel, vessel’s flag of registry, and other vessel specific information for each major port or waterway.</td>
<td></td>
</tr>
<tr>
<td><strong>Foreign Cargo</strong></td>
<td></td>
</tr>
<tr>
<td>This file contains information on cargo flows between United States ports/waterways and foreign ports.</td>
<td></td>
</tr>
<tr>
<td>4. Inbound and Outbound</td>
<td>1997 – 2011</td>
</tr>
<tr>
<td><strong>Lock Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>This file contains information on the physical aspects of all locks built, maintained, owned, or operated by the Corps, including six major characteristics: location, physical characteristics, site information, site characteristics, management information, and historical changes.</td>
<td></td>
</tr>
<tr>
<td>5. Lock Characteristics</td>
<td>2011 – 2012</td>
</tr>
<tr>
<td><strong>Ports and Waterway Facilities</strong></td>
<td></td>
</tr>
<tr>
<td>The port facilities database (Master Docks Plus) contains a national inventory that delineates the nation’s principal coastal, Great Lakes and inland port and waterway terminal and transfer facilities. The information is used to analyze the use and improvement of existing terminals and the planning and development of new ones. Primary users are federal, state, and municipal agencies; and port and waterway development authorities.</td>
<td></td>
</tr>
</tbody>
</table>

**Principal Ports of the United States**
The Principal Port file contains Corps port codes, geographic locations (longitude, latitude), names, and commodity tonnage summaries (total tons, domestic, foreign, imports and exports) for principal Corps ports. The ports are politically defined by port limits or Corps projects, excluding non-Corps projects not authorized for publication. The determination for the published Principal Ports is based upon the total tonnage for the port for the particular year; therefore, the top 150 list can vary from year to year.
Table Name | Availability
--- | ---
13. Region to Region | 2001 – 2011
16a. WCUS, Part 1 Atlantic Coast | 1993 – 2011
16b. WCUS, Part 2 Gulf Coast, Mississippi River System, Puerto Rico, and Virgin Islands | 1993 – 2011
16c. WCUS, Part 3 Great Lakes | 1993 – 2011
16d. WCUS, Part 4 Pacific Coast, Alaska | 1993 – 2011
16e. National totals by traffic and commodity (waterway code 9950) | 2000 – 2011
17. Waterway Mile Marker Database | 2011

State Summary Tonnage Data
This file contains annual state summary information from Waterborne Commerce Statistics Center Cargo Detail file listing tonnages between states, within state, and to foreign locations.

State-to-State and Region-to-Region Commodity Tonnages Public Domain Database
The Public Domain data files contain state-to-state and region-to-region tonnages for 14 major commodity groups by origin and destination. Each file lists the state or region abbreviation for origin and destination, commodity code, tonnage, and year.

U.S. Coast Guard Vessel Identification Table
As of March 22, 2012, this information is available upon request from the U.S. Coast Guard.

U.S. Coast Guard Marine Casualty and Pollution Investigations
As of March 22, 2012, this information is available upon request from the U.S. Coast Guard.

Vessel Characteristics
These files contain information on U.S. companies with vessels available for operation or in commercial operation on U.S. waterways, harbors and channels.

Waterborne Commerce of the United States
Waterborne Commerce of the United States (WCUS) is a series of publications that provide statistics on the foreign and domestic waterborne commerce moved on U.S. waters. The Manuscript Cargo File (Parts 1–4) presents data on the movements of commodities at the ports and harbors and on the waterways and canals of the United States and its territories. National totals by traffic and commodity are provided under waterway codes 9950. The geographical areas covered in WCUS Parts 1–4 are detailed below.

Waterway Mile Marker Database
The Waterway Mile Marker database contains 11,201 sequential mile positions of navigable inland waterways and the Gulf Intracoastal Waterway. Records include latitude, longitude, mile, river code, river name, river number, and name of source nautical chart.
Table Name | Availability
--- | ---
National Waterway Network | 2013

**National Waterway Network**
The National Waterway Network is a geographic database of navigable waterways in and around the United States, used for analytical studies of waterway performance, compiling commodity flow statistics, and mapping purposes. The data set is available in the National Transportation Atlas Database.

18. National Waterway Network

**Waterway Network Link Commodity Data**
The Waterway Network Link Commodity data is composed of 2011 commodity movements (in tons) across each National Waterway Network link. Tonnage is summarized for each link by commodity and direction (up bound and down bound). The commodities include coal, petroleum products, chemicals, crude materials, manufactured goods, farm products, machinery, waste, and unknown.

19. Waterway Network Link Commodity Data

**Reference Tables**
1. Commodity Code Cross Reference File LPMS, Public Domain, and WCUS
2. Hazardous Commodity Code Cross Reference File
3. The International Classification of Ships by Type
4. (Vessel) Flag Master File
5. Schedule K Classification of Foreign Ports
6. Foreign Country File
7. Waterway Port Codes and Names

**Data Collection Method and Limitations**
Data is compiled from several agencies, including the U.S. Army Corps of Engineers Navigation Data Center, the U.S. Bureau of the Census, the U.S. Coast Guard, Oak Ridge National Laboratory, and Vanderbilt University. The waterborne traffic movements are reported to the Corps of Engineers by all vessel operators of record on ENG Forms 3925 and 3925b (or equivalent) approved by the Office of Management and Budget under the Paperwork Reduction Act (44 U.S.C. 3510(a)). Data on foreign commerce is supplied to the Corps of Engineers by the Bureau of Census. 79

Additional information is available on the Navigation Data Center website.

**References**
- Website
  - http://www.navigationdatacenter.us/data/data1.htm
- Data Dictionaries and Glossary Terms
  - Data dictionaries are available for each data file

• Waterborne Commerce of the United States Terminology
  http://www.navigationdatacenter.us/data/dictionary/ddwcust.htm

• Related Publications
  o Publications from the Navigation Data Center
    http://www.navigationdatacenter.us/publications.htm

Data Provider and Contact

  Data Provider Agency: U.S. Army Corps of Engineers
  Contact: Waterborne Commerce Statistics Center
           PO BOX 61280
           New Orleans, LA 70161-1280
           Phone: (504) 862-1426 or (504) 862-1441
           Fax: (504) 862-1423
A 24. Vehicle Inventory and Use Survey

Overview

The Vehicle Inventory and Use Survey (VIUS) was part of the Economic Census and included information about the physical and operational characteristics of domestic private and commercial truck fleets.

Coverage

The survey encompasses private and commercial trucks that are registered or licensed in the United States as of July 1 of each survey year. Federal, state, or local government vehicles, as well as ambulances, buses, motor homes, farm tractors, unpowered trailer units, and trucks that have been reported to have been sold, junked, or wrecked prior to January 1 of the survey year are excluded.

Availability

First Year: 1963
Last Year: 2002
Frequency: Every 5 years
Prior to 1997, the survey was known as the Truck Inventory and Use Survey (TIUS).

Uses

Used by the government, businesses, academic institutions, and the general public.

1. To study the future growth of transportation.
2. To calculate fees and cost allocations among highway users.
3. To evaluate safety risks to highway travelers.
4. To assess the energy efficiency and environment impact of the Nation’s truck fleet.
5. To conduct market studies and evaluate market strategies.
6. To assess the utility and cost of certain types of equipment.
7. To calculate the longevity of products.
8. To determine fuel demands.
9. To link and better utilize other data sets representing limited segments of the truck population.

Data Tables

80 Trucks registered in a state other than the one listed on their mailing address were not included in the 1992 and earlier survey sampling frames. To include these trucks in the 1997 VIUS, a supplementary sample was selected. More details available on the following link: http://www.census.gov/svsd/www/vius/1997.html.
The Geographic Area Series consists of 52 data releases available for the United States, one for each state and the District of Columbia. All files are released as pdf files. Available microdata files contain unaggregated records for individual trucks by state. The records are masked to avoid possible disclosure of individual vehicles and owners.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains individual data records masked to avoid disclosure. Supplementary and reference documents also available for download include: Sample Size and Response Rates for each U.S. state, list of Variables and field type for each year, and Comparability between each survey year by variable and valid responses.</td>
<td></td>
</tr>
</tbody>
</table>

**Data Collection Methods and Limitations**

The sampling frame is stratified by geography and truck characteristics adding up to a total of 51 geographic strata. Body type and gross vehicle weight (GVW) determined the following five truck strata:

1. Pickups
2. Minivans, other light vans, and sport utilities
3. Light single-unit trucks (GVW 26,000 lbs. or less)
4. Heavy single-unit trucks (GVW 26,001 lbs. or more)
5. Truck-tractors

The above classification led to a total of 255 geographic-by-truck strata. Then, a simple random sample of truck registrations is selected from each stratum without replacement.\(^{81}\)

Some of the limitations and items to consider when using the database include:

- Since the VIUS is a sample survey, the use of an expansion factor is required when generating estimates. Using TAB_TRUCKS generates truck count estimates and using TAB_MILES (1997 and 2002 only) generates truck mile estimates.
- Data users should take into account the magnitude of "Not Reported" categories when assessing estimates computed using data contained in these public use microdata files. Individuals who use the microdata to create estimates not published by the Census Bureau should cite the Census Bureau as the source of only the microdata used, not as the source of the new estimates.
- Caution should be exercised when tabulating data based on state of registration, as this is not necessarily an indicator of where a truck’s activity is performed. For

\(^{81}\) Older surveys between 1963 and 1977 were stratified by “small trucks” and “large trucks”.

A-83
instance, a truck may be registered in one state but all of the truck’s activities are performed in another state. There are a variety of reasons this may occur (one state may offer lower fees or taxes, a company operating in multiple states may consolidate registrations, etc.).

References

- Website
- Data Dictionaries and Glossary Terms
- Related Publications
  - Transportation Related Census Bureau Programs and Other Transportation Related Data https://www.census.gov/svsd/www/vius/relatedprograms.html

Data Provider and Contact

Data Provider Agency: U.S. Department of Commerce
U.S. Census Bureau
Contact: Phone: (301)763-2716
Email: james.n.burton@census.gov
A 25. Vehicle Travel Information System

Overview

VTRIS is a software program for validating, editing, summarizing and generating reports on vehicle travel, weight and classification characteristics collected from weigh stations. It also stores data about the weight station including its location, roadway functional class, among others.

Coverage

WIM data from several weight station sites are provided to the FHWA by individual U.S. states

Availability

First Year: 1990
Last Year: 2013
Frequency: Annual

Uses

Used by government, academic institutions, and the general public for truck and weight studies, truck travel studies, and roadway pavement design studies. Data on overweight truck flows can also be estimated from the dataset.

Data Tables

VTRIS data can be accessed through the VTRIS W-Tables which are designed to provide a standard format for presenting the outcome of the Vehicle Weighing and Classification efforts at truck weigh sites.  

---

### TVT Database Structures

1. **MASTRSTN**
   - This data file contains the latest Station records received from each state.

2. **STNPARM**
   - This data file is designed to hold special default values by adding the flags to be set for the control of processing.

3. **VMT**
   - This data file contains values calculated from the Monthly files containing evaluated data.

4. **STATE**
   - This data file contains the FIPS state code, postal abbreviation and full state name for each state.

5. **STSSYYMM**
   - This data file contains the Station DB to receive the Monthly State Station input data SS-state code, YY-year, MM-month.

6. **MOSSYYMM**
   - This data file contains the data and calculated values which are processed from the SSYYMM DB into Monthly MOSSYYMM DB (SS-state code, YY-year, MM-month).

### VTRIS Documentation Appendix

7. **Station Data**
8. **Vehicle Classification Data**
9. **Weight Data**

### Data Collection Methods and Limitations

Data is collected from WIM sites by individual states and submitted to the FHWA. The VTRIS software performs data quality checks, and summarizes and generates reports on vehicle travel characteristics and weight station information.

### References

- **Website**

- **Data Dictionaries and Glossary Terms**
  - VTRIS Documentation: TVT Database Structures
    - http://www.fhwa.dot.gov/ohim/tvtables.cfm

- **Related Publications**
  - VTRIS Users Guide and Manual
A 26. Air Carrier Financial Reports

The Air Carrier Financial Reports provides financial information on large U.S. certified air carriers—includes balance sheet, cash flow, employment, income statement, fuel cost and consumption, aircraft operating expenses, and operating expenses. It is available for download via the TranStats database at http://www.transtats.bts.gov/Tables.asp?DB_ID=135

A 27. Business Dynamic Statistics

The Business Dynamics Statistics (BDS) data series includes measures of establishment openings and closings, firm startups, job creation and destruction by firm size, age, and industrial sector, and several other statistics on business dynamics. It is used for tracking, measuring and analyzing business dynamics at both the firm and establishment level and developing an understanding of the dynamics of employment over the business cycle and the contribution of businesses of different age and size. The BDS series provide annual statistics on gross job gains and losses for the entire economy and by industrial sector and state. The coverage and scope of the BDS is based on the Census Bureau's County Business Patterns (CBP) program. Additional information on BDS is available at http://www.census.gov/ces/dataproducts/bds/


The Statistics of U.S. Businesses (SUSB) data series provides detailed annual data on number of firms, number of establishments, annual payroll, and employment for U.S. business establishments by geography, industry, and enterprise size. Additional information on SUSB is available at http://www.census.gov/econ/susb/

A 29. U.S. Highway Statistics Series

The Highway Statistics Series consists of annual reports containing analyzed statistical information on motor fuel, motor vehicle registrations, driver licenses, highway user taxation, highway mileage, travel, and highway finance. It is published annually since 1945. The reports, including tables and charts are available for download in PDF format at http://www.fhwa.dot.gov/policyinformation/statistics.cfm.
A 30. Transportation Services Index

The Transportation Services Index (TSI), created by the U.S. DOT BTS measures the activities of for-hire freight carriers, for-hire passenger carriers, and a combination of the two. The index, which is seasonally adjusted, combines available data on freight traffic, as well as passenger travel, that have been weighted to yield a monthly measure of transportation services output. TSI data is collected from multiple government and private sources.

The TSI freight transportation services index consists of
- Aviation revenue freight ton-miles,
- For-hire trucking tonnage (parcel services are not included),
- Rail freight carloads including intermodal container and flat car traffic,
- Inland waterborne traffic, and
- Pipeline movements (including principally petroleum and petroleum products and natural gas).

The TSI passenger transportation services index consists of
- Local public transit ridership
- Aviation Revenue Passenger-Miles
- Rail Revenue Passenger-Miles

Additional information on TSI is available at http://apps.bts.gov/xml/tsi/src/index.xml.

A 31. Workforce Information Database (structure only)

The Workforce Information Database (WID) is a standardized database structure developed for the storage and dissemination of local, state, regional, and national workforce information on the economy, industry, labor supply and demand, and other aspects of and areas affected by, or that have an effect on our workforce.

The WID was created to provide a "common structure" for all states to use for the delivery of labor market and workforce information. The WID also provides a common base for populating nationwide information applications, such as America's Career Information Network (ACINet).

The structure and table layouts for the WID as described in the Database Structure Version 2.4 document are as follows:

Lookup Tables:
Contain relatively constant data that pertains mainly to descriptive data associated with classification codes.

Crosswalk Tables:
A subset of the lookup tables representing the relationships between various classification codes.

83 http://www.workforceinfodb.org/19WIDatabase.cfm
Data Tables
Contain information about employment, wages, income, layoffs, industries, occupations, employers, education and training completers, educational programs, population demographics, selected economic indicators, and other data. These tables are intended to contain information that is maintained on a regular basis by each state.

Field Value Tables
Presents standard values assigned to fields in the respective tables that are to be used in populating the database.

Administrative Tables
Used by the database administrator to record database management activities

Additional information on the WID structure is available at http://www.workforceinfodb.org/19WIDatabase.cfm
**A 32. FleetSeek**

FleetSeek is a commercially available database that acts as a search engine for a list of 200,000 integrated databases related to trucking fleets and operations headquartered in the U.S. and Canada. Users need to subscribe to be allowed access to the data, which is continuously updated. FleetSeek includes the following databases:

- The National Motor Carrier Directory
- The Private Fleet Directory
- The Canadian Fleet Directory
- The Owner-Operator Database

**Identified Data Tables**

<table>
<thead>
<tr>
<th>File Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Private Fleet Directory Database</strong></td>
</tr>
</tbody>
</table>
| 1. *The Private Fleet Directory*  
  These files contain information about fleets with vehicles operated by companies whose core businesses are outside of trucking, such as food chains, retailers, beverage distributors, trash haulers, phone companies, construction companies, and others. |

**For-Hire Directory Databases**

2. *National Motor Carrier Directory*  
   These files contain information about trucking companies of all sizes hauling freight for other companies in a for-hire capacity.

3. *Owner-Operator Database*  
   These files consist of operators of one tractor and no more than one trailer. They are used by companies targeting drivers to supplement their driver pool, or for companies marketing products directly to drivers.

4. *Canadian Fleet Directory*  
   These files include trucking companies and private fleets with headquarters in Canada.

5. *Carrier Routing Directory*  
   These files contain complete geographic coverage and demographics on thousands of trucking companies (and Canadian firms), including those that haul exclusively under contract.

Additional information on FleetSeek is available at [http://www.fleetseek.com/](http://www.fleetseek.com/)
A 33. American Trucking Association Motor Carrier Annual Report

American Trucking Association (ATA) Motor Carrier Annual Report is a privately available dataset supported by the ATA and is only available to members of the association. It contains financial data and graphs for the following:

- Total General Freight Truckload And Less Than Truckload Carrier Survey Data
- Total General Freight Truckload Carrier Survey Data
- Small General Freight (revenue under $50 Million) Truckload Carrier Survey Data
- Large General Freight (revenue above $50 Million) Truckload Carrier Survey Data
- Less Than Truckload Carrier Survey Data
- Refrigerated Carrier Survey Data
- Tank Carrier Survey Data

Additional information on the ATA Motor Carrier Annual Report is available at http://www.trucking.org/abs/Pages/Motor-Carrier-Annual-Report-2010-data.aspx

A 34. Dun and Bradstreet Hoovers Database

The Dun and Bradstreet Database is a privately available dataset, supported by Hoover’s Corporation, which supplies business information and research. Its database contains commercial data on around 220 million companies. The data is mined into software products, web-based applications, and marketing information. Data is generally used for two main purposes: risk management and sales and marketing solutions. Reports on 85 million companies within 900 industry segments can also be purchased and include:

- Company Reports
- Industry Reports from First Research
- IT Spotlight Reports
- Competitive Landscape Reports
- Business Credit Reports

Additional information on the Dun and Bradstreet Reports is available at: http://www.hoovers.com/company-information/company-reports-industry-reports.html

A 35. IHS Global Insight Transearch

IHS Global Insight Transearch is a commercially available database used as a tool to analyze and plan current and future freight flows by origin, destination, commodity, and transport mode. It mainly helps users to prioritize investments, improve competitive positioning, and anticipate economic shifts and market changes. The database offers
information on the freight flows in the national, state, business economic area, and county levels within the U.S. including transportation demand by commodity and location. Data provided by Transearch include:

- Outbound, inbound, intra, and through shipments by geography
  - Geographies include 172 BEAs
  - Over 3,000 counties
- Routed volumes along individual trade lanes or corridors
- Tonnage, value, and units of shipments
- Seven major transportation modes, including truck, rail, waterborne, and air
- Detail for over 340 commodities
- Canada and Mexico cross-border flows

Additional information on Global Insight Transearch is available at http://www.ihs.com/products/global-insight/industry-analysis/commerce-transport/database.aspx
A 36. IMPLAN Data Files

The IMPLAN Local Area Data Files is a commercially available database run by the IMPLAN Group LLC that is used to develop models of local economies in order to estimate a wide range of economic impacts. It has been published since 1990 and is updated annually with the more current version released in 2011. Data can be accessed through purchase and contains information at the national, state, county, and zip code levels. Information is collected from a series of federal government data sources, which can be found in the main website. The database contains information for a number of industries and the following elements in each:

- Employment
- Industry output
- Value-added services
- Institutional demands
- National structural matrices
- Inter-institutional transfers


A 37. InfoUSA

InfoUSA provides a commercially available database that helps businesses acquire, manage, and retain customers through providing them with information on business and consumer contacts. It is a business unit of Infogroup that acts as a leading provider of business and consumer data in North America. It uses the Data Axle™ search engine, which connects to several other databases and then filters and sorts information based on the needs of the customer.

Additional information on InfoUSA is available at http://www.infousa.com.

A 38. Intermodal Association of North America Data and Statistics

The Intermodal Association of North American Information (IANA) is an industry trade association that combines the interests of the intermodal freight industry from rail to water carriers to highway carriers and others. Its main purpose is to promote the growth of efficient intermodal freight transportation through innovation, education, and dialogue. Data is derived from IANA’s quarterly Intermodal Market Trends & Statistics Report and presents graphics of recent and future trends.

Additional information on IANA is available at http://www.intermodal.org/ and the Intermodal Glossary is available at http://www.intermodal.org/information/glossary.php.
A 39. Lloyd’s Marine Intelligence Unit

Lloyd’s Marine Intelligence Unit is a private entity that provides information on global maritime and trade communities and tools to support business decisions. Data is obtained from a different number of private sources some internal and some external to the company. Data provided by the entity include vessel and cargo tracking, vessel ownership and characteristics, market trends, and vessel casualties.

Additional information on Lloyd’s Marine Intelligence Unit is available at http://www.lloydslistintelligence.com/llint/index.htm;jsessionid=C1F1C17A4F04278147FED00CD0DA261D

A 40. Port Import Export Reporting Service (PIERS)

PIERS is a commercially available database supported by the United Business Media. Global trade that contains information on U.S. waterborne import and export trade data. It also offers similar data for Mexico (including U.S. cross-border shipments), China, Brazil, India, and most of South America.

Additional information on PIERS is available at https://www.piers.com/ProductsAndServices

A 41. State of Logistics Report

The Council of Supply Chain Management Professionals (CSCMP) State of Logistics Report is an annual commercially available report widely used by supply chain management and logistics professionals and organizations as the premier benchmark for U.S. logistics activity.


A 42. Woods & Poole Economics

Woods & Poole is a private entity that deals with the projection and forecasting of economic and demographic variables. Its database contains a list of economic and demographic variables for every state, region, county, metropolitan, and micropolitan area in the U.S. Data extends from 1970 until the forecasted 2040 and is updated annually. It includes some detailed information about population such as age, sex, race, employment and earnings by major industry, personal income by source of income, retail sales by kind of business, and household size and income. Additional information on Woods and Poole is available at http://www.woodsandpoole.com/
The discussions presented in Appendix A focus on information that users should consider when working with commodity and industry classification codes. The data sources discussed here contain unique characteristics that data users should be aware of when utilizing them for freight analysis. These discussions have been incorporated into the S.H.I.F.T. web application as individual pages.

**Harmonized System Code (HS)**

**Background**
The HS was introduced in 1988 and has been adopted by most countries worldwide.1 It is administered by the World Customs Organization2 and serves as the foundation for the import and export classification systems used in the U.S. The U.S. import classification system (the Harmonized Tariff Schedule administered by the U.S. International Trade Commission) and the U.S. export classification system (the Schedule B administered by the U.S. Census Bureau’s Foreign Trade Division) both rely on the international HS codes for their four- and six-digit headings and subheadings. The World Customs Organization updates the HS System approximately every five years. The year 2012 marked the most recent HS revision, meaning the next revision will occur in 2017. It has undergone several changes in the classification of products. These changes occurred in 1992, 1996, 2002, 2007, and 2012.3

**Structure**
HS codes are an international nomenclature for the classification of products. They allow participating countries to classify traded goods on a common basis for customs purposes. At the international level, HS is a six-digit code system used for classifying goods. HS codes comprise approximately 5,300 article/product descriptions that appear as headings and subheadings, arranged in 99 chapters, grouped in 21 sections.4 Up to the HS six-digit level, all countries classify products in the same way (a few exceptions exist where some countries apply old versions of the HS). Table A1 summarizes the various levels of the HS Code.5

<table>
<thead>
<tr>
<th>Level</th>
<th>Grouping</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st &amp; 2nd digit</td>
<td>Chapter the goods are classified in</td>
<td>Coffee, Tea, Mate and Spices (09)</td>
</tr>
<tr>
<td>3rd &amp; 4th digit</td>
<td>Groupings within the chapter</td>
<td>Tea, Whether or Not Flavored (0902)</td>
</tr>
<tr>
<td>5th &amp; 6th digit</td>
<td>Specific groupings within the chapter</td>
<td>Green Tea - Not Fermented NESOI (090220)</td>
</tr>
</tbody>
</table>

Additional digits may be added to the HS code by a particular country to add additional detail on the product for customs and tariff purposes, potentially going up to 10 or 12 digits.

**Weakness**
Classification helps determine if there are any export/import licensing requirements between countries; if these products have any restrictions, they may be seized at border crossings. Improper classification may also cause products to be delayed at international borders. In the
U.S., Export Administration Regulations must be applied to products crossing the border. A slight difference in classification can create a big difference in the taxes that are paid.

**STRENGTHS**

HS codes constitute a universal trading language for products, which is an indispensable instrument for both product coding and international trade, as well as for all countries’ customs tariffs. Every product/product group has an HS Code. HS Codes, up to the six-digit level, are followed internationally and these codes represent the same product/product group in these countries. The codes that have more than six digits in the Tariff Schedules can be arranged and detailed by the countries according to their needs for a variety of reasons (e.g., to obtain more detailed statistics, or to apply customs duties on the basis of more detailed product codes).

**SCHEDULE B**

Schedule B, based on the HS, consists of 22 sections divided into 97 chapters. Chapters 1 through 97 correspond with the international system of numbering, with chapter 77 being blank. An additional chapter, 98, is used for special classification provisions that apply only to U.S. exports. The 10-digit HS-based Schedule B codes (commodity numbers) comprise these chapters. Schedule B has approximately 9,000 of these 10-digit classification codes in the 2014 edition. The U.S. and Canada both compile their merchandise trade statistics in terms of the HS; however, they have different annotations beyond the basic six-digit codes.

**HARMONIZED TARIFF SCHEDULE (HTS)**

The HTS is based on the HS and is used for U.S. import classification. The first six digits of the commodity numbers in Chapters 1 through 97 of both the HTS and the Schedule B are identical with respect to descriptions and codes. Beyond the six-digit level, the classification may be comparable on a one-to-one basis or comparable by adding two or more import classifications to equal a single Schedule B classification.

**END-USE CODES**

End-use codes summarize the HS codes and Schedule B into six “end-use” categories. These categories are further subdivided into 140 commodity groups. These categories are used in developing seasonally adjusted and constant dollar totals. The concept of end-use demand was developed for balance-of-payment purposes by the Bureau of Economic Analysis.

**NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) CODE**

**BACKGROUND**

NAICS (pronounced “nakes”) was developed under the auspices of the Office of Management and Budget, and adopted in 1997 to replace the Standard Industrial Classification (SIC) system. It was developed jointly by the U.S. Economic Classification Policy Committee, Statistics Canada, and Mexico’s Instituto Nacional de Estadistica y Geografia, to allow for a high level of comparability in business statistics among the North American countries.

**STRUCTURE**

The NAICS numbering system employs six-digit codes at the most detailed industry level. The first five digits are generally (although not always strictly) the same in all three countries. The
first two digits designate the largest business sector, the third digit designates the subsector, the fourth digit designates the industry group, the fifth digit designates the NAICS industries, and the sixth digit designates the national industries. A summary of the various six-digit NAICS levels is presented in Table A2.13

Table A2. Levels of Classification in NAICS Codes

<table>
<thead>
<tr>
<th>Level</th>
<th>Grouping</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st &amp; 2nd digits</td>
<td>Largest business sector</td>
<td>Manufacturing Part 1 (31)</td>
</tr>
<tr>
<td>3rd digit</td>
<td>Business subsector</td>
<td>Food &amp; Kindred Products (311)</td>
</tr>
<tr>
<td>4th digit</td>
<td>Industry group</td>
<td>Foods, NESOI (3119)</td>
</tr>
<tr>
<td>5th digit</td>
<td>NAICS industries</td>
<td>Coffee &amp; Tea (31192)</td>
</tr>
<tr>
<td>6th digit</td>
<td>National industries</td>
<td>Coffee &amp; Tea (311920)</td>
</tr>
</tbody>
</table>

WEAKNESS
NAICS codes are size-specific so registering under the wrong code can disqualify businesses.12 The classification levels allow larger companies to classify themselves as smaller businesses by not disclosing affiliate organizations or underreporting company revenues.13

STRENGTH
NAICS is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

STANDARD TRANSPORTATION COMMODITY CODE (STCC)

BACKGROUND
The STCC system was developed in the 1960s as a comprehensive commodity classification system. The system was designed by a special committee of the Association of American Railroads (AAR) and was used in the first Census of Transportation in 1963.14 Currently, the STCC is maintained and published by the AAR. The code has been updated by AAR over the years to meet the needs of its users, particularly the North American freight railroads. The annual Railroad Waybill data, the 1993 Commodity Flow Survey (CFS), and the first generation of the Freight Analysis Framework all used the STCC coding system.15

STRUCTURE
Generally, the first four digits of the STCC represent the industry that produced the commodity, based on the SIC system. The STCC’s fifth digit provides product classes within the producing industries. The last two digits add commodity detail of particular interest to the railroads. A summary of the various five-digit STCC levels is presented in Table A3.16
Table A3. Levels of Classifications in STCCs

<table>
<thead>
<tr>
<th>Level</th>
<th>Grouping</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st 2 digits</td>
<td>Major industry classes</td>
<td>Food or Kindred Products (20)</td>
</tr>
<tr>
<td>3rd digit</td>
<td>Minor industry classes</td>
<td>Miscellaneous Food Rations or Kindred Products (209)</td>
</tr>
<tr>
<td>4th digit</td>
<td>Specific industries</td>
<td>Miscellaneous Food Rations, NEC (2099)</td>
</tr>
<tr>
<td>5th digit</td>
<td>Product classes</td>
<td>Tea or Instant Tea (20998)</td>
</tr>
</tbody>
</table>

**WEAKNESS**

The STCC was developed primarily to support the analysis and regulation of railroads. Consequently, its classification details were tailored for rail freight but were less helpful for commodities typically carried by truck or air cargo. The large number of categories in the five-digit STCC system (over 1,200 codes) also creates a burden to respondents who use this commodity coding system.

The use of the SIC system in the STCC supports linkages between shipper and shipment information, but the SIC system has evolved over the years and more recently has been replaced by NAICS. The STCC has not kept pace with these changes, reducing the comparability of commodity and economic data.

While crosswalks are available between STCC and HS codes, international trade in electronics and other commodities not historically carried by railroads is poorly represented in the STCC.

**STRENGTH**

By design, the STCC has excellent detail for commodities carried by railroads. Under the STCC system, hazardous materials can also be readily identified. Because bulk commodities are well represented, the STCC also works well for domestic water transport.

**STCC 48, 49, AND 50 SERIES CODE**

STCC section 48, 49, and 50 codes were developed to meet a carrier’s need to identify those commodities designated as hazardous waste, hazardous materials, or bulk commodities. Section 48 codes consist of descriptions of commodities designated as hazardous wastes by the Environmental Protection Agency and by the DOT. STCC 48 is structured so that the first two digits signify the commodity is hazardous, with the rest of the code matching classes and hazard groups in the U.S. DOT’s Hazardous Materials Table. Section 49 is structured similarly to STCC 48 with matching classes and hazard groups. Section 50 codes use STCC Product Class codes, which identify commodities only. These codes do not indicate whether a commodity in a boxcar is packaged or in bulk form. Section 50 codes were assigned to commodities from STCC Product Classes, as selected by the National Car Grading Task Force, to provide identification of their movement in bulk in boxcars for car grading purposes.17

**STANDARD CLASSIFICATION OF TRANSPORTED GOODS (SCTG)**

**BACKGROUND**

The U.S. DOT, U. S. Bureau of the Census, Statistics Canada, and Transport Canada developed the SCTG to replace the STCC for the 1997 and subsequent CFS and to integrate separate
commodity classification systems used in Canada. The SCTG is maintained by Statistics Canada.

**STRUCTURE**

The SCTG structure is hierarchical. It comprises four levels (i.e., two to five digits) that aggregate HS four- or six-digit classes. The SCTG groupings were designed to create statistically significant transportation categories. Specifically, each level of the SCTG covers the universe of transported goods, and each category in each level is mutually exclusive.

At the most aggregated level (i.e., two-digit), the SCTG was designed to provide analytically useful commodity groupings for users that are interested in an overview of transported goods. The three-digit categories provided the best basis for U.S.-Canadian comparisons. The four-digit SCTG categories were created to reflect industry patterns and transportation characteristics often not provided in the HS. The most detailed SCTG category, which is at the five-digit level, is the collection level for the CFS. At this level, each category was designed to capture significant details that reflect industry patterns and transportation characteristics. The categories represented by each level of SCTG, as used in the 2002 CFS, are summarized in Table A4.

<table>
<thead>
<tr>
<th>Level</th>
<th>Information Provided</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st 2 digits</td>
<td>Analytical overview</td>
<td>Agricultural Products Except Live Animals, Cereal Grains, and Forage Products (03)</td>
</tr>
<tr>
<td>3rd digit</td>
<td>U.S.-Canadian product groups</td>
<td>Fresh-cut flowers, plants, and parts of plants, and other agricultural products except forage products and cereal straw or husks (039)</td>
</tr>
<tr>
<td>4th digit</td>
<td>Transportation characteristics</td>
<td>Other (0399)</td>
</tr>
<tr>
<td>5th digit</td>
<td>CFS 2002 collection level</td>
<td>Unprocessed Coffee &amp; Unfermented Tea (03991)</td>
</tr>
</tbody>
</table>

**WEAKNESS**

The SCTG does not identify specific categories of products as being hazardous. It does not include any special groupings in its categories under the title of “hazardous.” This limitation is by design, because a separate system for categorizing hazard classes is used in the CFS.

**STRENGTH**

SCTG commodity classifications are more suited to represent goods movements for all modes than for a single mode (i.e., railroads), as in the STCC system. In addition, the number of categories in the more detailed levels of SCTG has been dramatically reduced from the number of categories used in the STCC (see Tables A3 and A4). Consequently, the burden to users of the four- or five-digit SCTG commodity codes would be much less than that of the same level STCC system.

By design, SCTG classification made the transportation data from the U.S. and Canada comparable. Furthermore, the HS-based SCTG coding also allows other international comparisons (i.e., imports and exports). As a result, the SCTG creates an integrated commodity classification system that is useful for economic analysis, including production, shipments, and
STANDARD INTERNATIONAL TRADE CLASSIFICATION (SITC)

BACKGROUND
The SITC is a statistical classification of the commodities entering external trade; it is designed to provide the commodity aggregates needed for purposes of economic analysis and to facilitate the international comparison of trade-by-commodity data.21

STRUCTURE
SITC codes are structured into five hierarchical classification groups. The first digit represents the Section level (e.g., 7 - Machinery and transport equipment). The second digit represents the Division level (e.g., 73 - Metalworking machinery). The third digit represents the Group level (e.g., 731 - Machine tools working by removing metal or other material). The fourth digit represents the Subgroup level and is separated from the first three digits by a period (e.g., 731.4 - Way-type unit head machines; other machine tools for drilling or boring). The fifth digit represents the Basic heading level (e.g., 731.41 - Way-type unit head machines).22 These groups are shown in Table A5:23

<table>
<thead>
<tr>
<th>Level</th>
<th>Grouping</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st digit</td>
<td>Sections</td>
<td>Food &amp; Live Animals (0)</td>
</tr>
<tr>
<td>2nd digit</td>
<td>Divisions</td>
<td>Coffee, Tea, Cocoa, Spices and Manufacturers Thereof (07)</td>
</tr>
<tr>
<td>3rd digit</td>
<td>Groups</td>
<td>Tea &amp; Mate (074)</td>
</tr>
<tr>
<td>4th digit</td>
<td>Subgroups</td>
<td>Tea, Whether or Not Flavored (0741)</td>
</tr>
<tr>
<td>5th digit</td>
<td>Items</td>
<td>Other Green Tea Not Fermented, Whether or Not Flavored (07412)</td>
</tr>
</tbody>
</table>

WEAKNESS
The code has limited usage compared to the other existing codes. There is also limited information on usefulness of the code or applications of it.

STRENGTH
The HS and SITC Revision 3 are interrelated. The rearrangement of import and export data reported in terms of the HS into the SITC allows for an additional means of comparison between the U.S. and its trading partners in terms of commodity classification and trade statistics.24

WATERBORNE COMMERCE STATISTICAL CENTER (WCSC) CODES
The WCSC codes were developed by the U.S. Army Corps of Engineers and have been standardized to reflect the hierarchical structure of the SITC Codes, but are focused on commodities that are most likely to utilize water transport. WCSC codes are closely tied to HS codes.25