

Bureau of Transportation Statistics Significant Accomplishments

Fiscal Year



PERFORMANCE

RESULTS

The BTS mission is to create, manage, and share transportation statistical knowledge with public and private transportation communities and the Nation.

RELEVANCE

The Bureau of Transportation Statistics is a component of the Research and Innovative Technology Administration (RITA). RITA also includes the Intelligent Transportation Systems Joint Program Office; Office of Research, Development & Technology; Transportation Safety Institute; and Volpe National Transportation Systems Center.

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UNITED STATES
DEPARTMENT OF TRANSPORTATION

BUREAU OF TRANSPORTATION STATISTICS *Significant Accomplishments* **Fiscal Year 2008**

The Bureau of Transportation Statistics (BTS) was established within the U.S. Department of Transportation (USDOT) in 1992 to collect, report, and analyze transportation data. Today, BTS is a component of the USDOT Research and Innovative Technology Administration (RITA). RITA coordinates the Department's ever-increasing range of innovative transportation activities, statistics, research, and technologies. RITA has several statutory missions, including comprehensive transportation statistics research, analysis, and reporting.

The BTS mission is to create, manage, and share transportation statistical knowledge with public and private transportation communities and the Nation. This mission is served by developing quality transportation data, promoting transportation knowledge through statistical products, and advancing the effective use of this knowledge by public and

private transportation decision makers, researchers, and the American public. In sum, BTS is a high-performance, results-oriented organization committed to creating, managing, and sharing transportation statistical knowledge.

Originally created under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, today BTS' authorizing legislation is the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which authorizes \$27 million for the agency each year from 2005 through 2009. BTS is led by a Director, appointed by the Secretary of Transportation, who reports to the Administrator of RITA. BTS staff focus their expertise in transportation, statistics, economics, information technology, library science, and geographic information systems on a wide-range of transportation matters—with authoritative results.

The Bureau's products include reports to Congress, the Secretary of Transportation, and stakeholders in the Nation's transportation community. BTS stakeholders include:

- Federal agencies,
- State and local governments,
- Metropolitan planning organizations,
- Universities,
- The private sector, and
- The general public.

BTS IS A KNOWLEDGE-BASED ORGANIZATION

As a federal statistical agency, BTS maintains a special degree of objectivity and independence in its statistical work. BTS does not advocate policies or programs, and special protections are in place to maintain confidentiality in data collection and dissemination. The Bureau's efforts focus on obtaining—and helping to objectively analyze and interpret—data that will be used to increase the Nation's understanding of transportation topics and to better inform decisions and policies. To achieve this goal, BTS engages in three central activities: *creating, managing, and sharing* transportation statistical knowledge.

Creating Transportation Statistical Knowledge

BTS designs and manages surveys, collects and interprets data from private organizations and governmental agencies, and reports results of statistical and economic analyses. The following activities exemplify the Bureau's work in creating knowledge.

► Commodity Flow Survey

The Commodity Flow Survey (CFS) is the primary source of national data on the flow of goods and includes data on origin and destination, distance, and

The Commodity Flow Survey is the only source of nationwide data on domestic truck freight flows and the sole source of national-level flow data on hazardous materials shipments by highway and air collected by the federal government.

mode of transportation. Conducted every 5 years in partnership with the U.S. Census Bureau, the CFS obtains data on commodities shipped; their value, weight, and mode of transportation; and the origin and destination of shipments by manufacturing, wholesale, mining, and selected retail industries. The CFS provides key information for understanding the use and performance of our Nation's freight transportation system.

According to preliminary estimates from the latest Commodity Flow Survey, in 2007 American businesses made shipments valued at \$11.8 trillion, totaling 13.0 billion tons, and accounting for 3.5 trillion ton-miles on the nation's transportation infrastructure. Trucking continues to dominate as the modal choice for freight shipments, accounting for 70.7% of the value and 75.7% of the tons of all commodity shipments.

Shipment Characteristics by Mode of Transportation for the United States: 2007

Mode of transportation	Value (\$ millions)	Tons (thousands)	Ton-miles (millions)	Average miles per shipment
All modes	11,831,503	13,016,610	3,490,806	580
Single modes	9,554,880	12,087,756	2,953,076	213
Truck	8,363,657	8,957,687	1,390,102	187
For-hire truck	4,764,442	4,029,016	1,011,018	527
Private truck	3,599,215	4,928,670	379,084	82
Rail	387,567	1,928,530	1,294,921	691
Water	106,905	423,282	175,973	330
Shallow draft	95,420	381,566	163,571	284
Great Lakes	705	13,261	4,830	133
Deep draft	10,779	28,455	7,571	390
Air (includes truck and air)	209,611	3,525	4,014	1,299
Pipeline	487,140	774,732	88,065	194
Multiple modes	1,938,884	S	489,767	S
Parcel, U.S. Postal Service or courier	1,597,931	36,029	29,535	914
Truck and rail	197,748	213,411	188,547	1,053
Truck and water	31,112	74,421	48,870	1,347
Rail and water	7,744	44,979	30,444	2,608
Other multiple modes	104,350	257,698	192,372	2,190
Other and unknown modes	337,739	302,315	47,964	149

KEY: S = Estimate does not meet publication standards due to high sampling variability or poor response quality.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics and U.S. Department of Commerce, U.S. Census Bureau, "2007 Economic Census: Transportation Commodity Flow Survey, Advance Release," December 2008.

In 2008, BTS staff worked in Joint Investigative Teams, in partnership with the U.S. Census Bureau, to address specific issues and research areas related to the 2007 CFS, such as weighting and estimation, mileage calculations, and publications. The teams calculated the miles for three million freight shipments collected by the survey and developed the estimates for the 2007 CFS publications. Preliminary estimates were released in December 2008.

Transportation professionals rely on CFS data and publications to analyze trends in goods movement, conduct hazardous materials risk assessments, forecast future demand for goods movement and associated infrastructure and equipment needs, and analyze commodity and vehicle flow patterns.

The CFS is used by:

- State DOTs, metropolitan planning organizations, trade associations, and transportation entities to guide transportation policy and investment;
- Public policy analysts and transportation planners to assess the demand for transportation facilities and services, energy use, and safety risk and environmental concerns; and
- The private sector for freight forecasts and freight models.

► *TransBorder Freight Data*

BTS ensures that high quality international data and analyses are available to all levels of government, the private sector, and individuals studying trade and transportation. BTS produces monthly statistics on U.S.-Canadian and U.S.-Mexican freight movements.

In 2007, over 29 percent of the value of all goods moved in U.S.-International trade was in U.S. trade with Canada and Mexico.

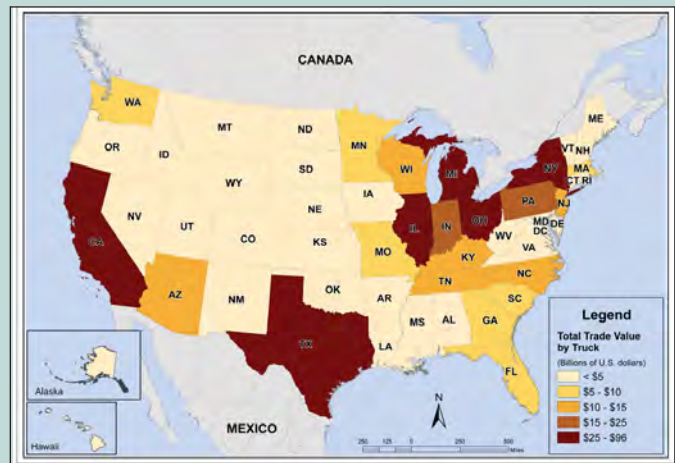
BTS also provides monthly incoming border crossing/entry data for vehicles, containers, passengers, and pedestrians at the port level on the U.S.-Canadian and U.S.-Mexican borders. Several BTS staff are active members of the Transportation Border Working Group and have conducted presentations and provided data to the group.

On an average day, approximately 150 unique users access the BTS TransBorder Freight web site.

BTS TransBorder data are also used by:

- State and local governments for transportation infrastructure and logistics planning, including border congestion analyses and freight corridor planning;
- The Federal Highway Administration (FHWA) to implement the coordinated border infrastructure program and apportion funds to border states;
- Transportation planners to perform trade corridor studies, transportation pattern analyses, system capacity studies, and other research; and
- Other public and private users, including industry associations, academic researchers, and the private sector.

Total Trade Value by Truck Between Individual States and Our NAFTA Partners, 2007

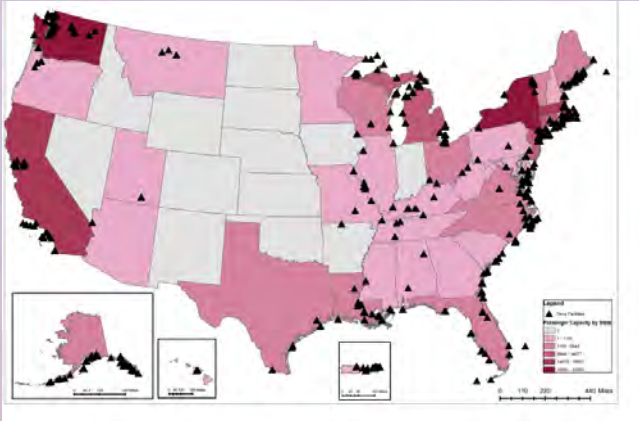


► *Intermodal Passenger Connectivity Project*

The Intermodal Passenger Connectivity Project is the first nationwide measurement of the degree of connectivity within the Nation's passenger transportation system. The project's database contains information on connections with other scheduled passenger transportation modes available at terminals. The second phase of the Intermodal Passenger Connectivity Project was completed in fiscal year (FY) 2008. With the addition of ferry terminals to the database, which already contained intercity rail terminals and airports, the online database now

includes nearly 1,500 terminals. BTS published two new reports with these data, one highlights findings for ferry terminals and another details the connectivity criteria. Data collection for the next phase of the project (rail transit) is underway and will continue through FY 2009.

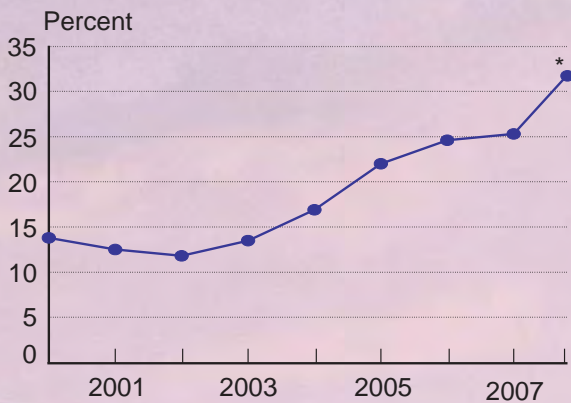
Geographic Location of the Nation's Ferry System



► Airline Data

BTS regularly collects a wide range of airline-related data. These data are used by customers within the USDOT, including the Office of Aviation Analysis, the Federal Aviation Administration (FAA), and the Office of the General Counsel. Stakeholders outside of the USDOT, such as Congress, the Department of Homeland Security, state and local governments, the air transportation industry, researchers, academia, and the public, also rely on BTS airline data products and reports.

Fuel Costs Make up More than 30% of Total Airline Operating Expenses



* Data are available through September 2008.

NOTE: Data are from the 75 U.S. carriers with operating revenues greater than \$20 million.

The Airline Service Quality Program collects data from 18 leading air carriers and 1 voluntary reporting carrier. The airlines electronically file their reports, which include on-time and delay data, cancellations, and reasons for delays. On May 15, 2008, BTS issued a final rule to collect additional data elements when flights are cancelled, diverted, or return to the gate. The additional data elements will provide consumers with a more accurate portrayal of arrival and tarmac delays than was available previously.

The new elements require uniform reporting of instances in which a flight returns to the gate one or more times prior to take-off. The final rule also collects data on the length of time a flight is away from the gate prior to being cancelled. For flights that are diverted to an alternate airport, the final rule collects the airport code for each diverted airport and information on the arrival time, tarmac time, and departure time at the diverted airport. For diverted flights, information is also being collected to determine whether a diverted flight reaches its original destination airport. These new reporting requirements went into effect on October 1, 2008.

BTS' Airline Information Program is the Nation's only source of comprehensive airline traffic, financial, and performance data.

In addition to airline financial data, BTS collects airline traffic data from all U.S. carriers (except on-demand air taxis). These data include the number of passengers and the weight of cargo (mail and freight) by nonstop flight segment and on-flight market. Reported traffic data also include the available passenger and cargo capacity. BTS also collects survey data on the origin and destination, including the ticketed trip itinerary, of passengers as well as the total dollar amount of the airfare.

Airline statistics produced by BTS are regularly reported in the Nation's leading media outlets. Data are available in monthly and quarterly press releases and on the BTS web site. The Office of the Secretary of Transportation uses the BTS airline data to generate the monthly Air Travel Consumer Report.

Managing Transportation Statistical Knowledge

BTS extracts and compiles data from a wide variety of sources to provide transportation professionals with current and relevant information. As a result, BTS is recognized internationally as a reliable source of data, statistics, reports, and related materials on numerous facets of transportation.

► *Trending and Forecast Team*

Established in FY 2008, the BTS Trending and Forecast Team performs trending, prediction, seasonal adjustment, and forecasting analyses of transportation data. The Team's projects in FY 2008 included estimating seasonality in congestion patterns in the cities of Chicago, Los Angeles, and Houston; developing statistical models to predict the likelihood of future pipeline incidents to help determine inspection priorities; deseasonalizing of the Federal Highway Administration monthly vehicle-miles traveled data; deseasonalizing and short-term forecasting of BTS TransBorder data; and developing new 20-year forecasts of key transportation variables, such as freight ton-miles, projected to the year 2025.

The Team created the USDOT Transportation Forecasting Network to connect staff from the many agencies within the USDOT and the federal government that are involved with forecasting activities. Two meetings were held in FY 2008 to provide an opportunity for introductions and sharing ideas, including a presentation on models used by BTS to analyze transportation scenarios.

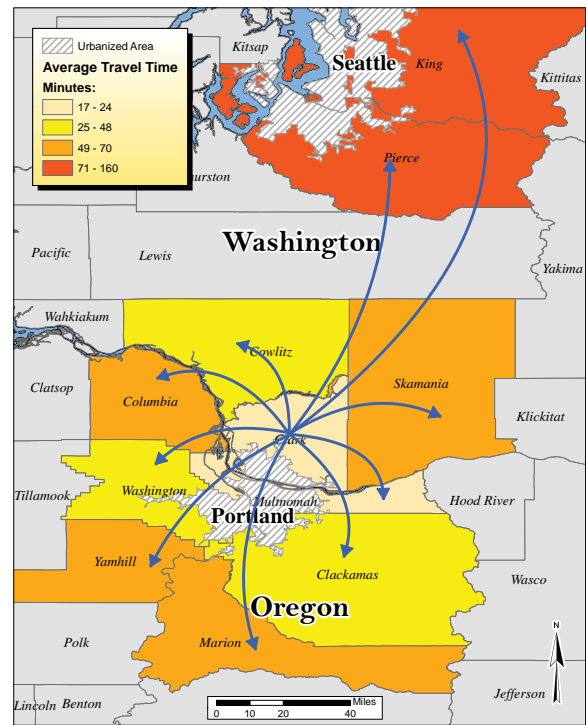
BTS staff on the Team have been invited to present at several national and international conferences. At the Federal Forecasting Conference, in April 2008, a BTS staff member chaired the transportation forecasting session, and staff members presented the results from three published BTS special reports. In June, a staff member was invited to deliver a presentation at the International Symposium on Forecasting in Nice, France; the title of the presentation was Forecasting Competition on Transportation Data: A Modal Perspective.

In 2009, BTS will hold an international workshop on transportation forecasting, sponsored jointly with the International Institute of Forecasters.

► *Geospatial Information*

BTS actively contributes to the Nation's geospatial knowledge by developing software to improve the estimation of travel routes and by collaborating with federal agencies and stakeholders to advance geographic data efforts. The Bureau is the principal geospatial agency at the USDOT, leading and participating in geospatial activities within the Department and overseeing the Department's OMB Circular A-16 and geospatial Exhibit 300 activities. To better fulfill this role, the position of Geographic

Journey to Work Travel Times from Clark County Washington to Selected Counties Around Seattle and Portland



NOTE: This map is an example of analysis from the Journey to Work project that BTS is doing for the Bureau of the Census and the Federal Highway Administration. BTS' work provides vital input that the Census Bureau will use to complete its update of the Census Transportation Planning Package.

Information Officer, which resides within BTS, was created this year by the USDOT and acts as the lead coordinator of Geographic Information Systems (GIS) activity within the Department and spokesperson within the transportation community.

BTS participated in the Steering Committee and Coordination Group meetings of the Federal Geographic Data Committee (FGDC)—the policy-level interagency group responsible for overseeing Office of Management and Budget Circular A-16 related to activities and implementation of the National Spatial Data Infrastructure. The Steering Committee coordinates all federal geospatial activities between, among, and within agencies by establishing policy and providing guidance and direction to the member agencies. The Coordination Group advises on the day-to-day business of the FGDC, and is comprised of chairpersons of the 9 thematic subcommittees and 4 cross-cutting working groups, representatives from federal agencies, and stakeholder groups.

BTS continues to work closely with the FGDC and was acknowledged by the Committee for its contributions to this year's FGDC Annual Report regarding GIS activity and geospatial data development within the Department of Transportation. BTS also represents the USDOT in the Geospatial Line of Business and the Department of Homeland Security's Homeland Standards Working Group. Geographic descriptions of BTS transportation data are part of the *Federal Geographic Committee Annual Report 2008*.

BTS has adopted an innovative software tool, called "GeoMiler," originally developed for use with the Commodity Flow Survey, to help researchers produce better estimates of travel from the Census Transportation Planning Package (CTPP) 2000. CTPP is a special tabulation created by the Census Bureau for the American Association of State Highway and Transportation Officials (AASHTO) of responses from households completing the American Community Survey's Journey to Work questions. The special tabulation provides data to support a wide range of transportation planning activities. It is the only Census product that summarizes data by place of work and tabulates the flow of workers between home and work. An effort is currently underway by the Federal Highway Administration and the Bureau of the Census to increase the accuracy of the CTPP data. BTS is adding value to this unique multimodal and multiagency effort by providing staff with expertise in Geospatial Analysis to help create Census Tract to Tract travel time estimates that will be used with the Journey to Work responses. This analysis will produce approximately 25 million records and supply vital data to the transportation community.

► *National Transportation Library*

Charged with improving the availability of transportation-related information needed by federal, state, and local decisionmakers, the National Transportation Library (NTL) provides timely access to information that supports transportation policy, research, operations, and technology transfer activities. The NTL serves as an online repository of transportation materials from public, academic, and private organizations. The NTL also:

- Publishes TRIS Online (Transportation Research Information Service), a product of the Transportation Research Board and the premier bibliographic database for the industry;

- Provides an Integrated Search tool that serves as a single point of entry to NTL's Digital Collection, TRIS Online, and the *Transportation Research Thesaurus*;
- Networks with other transportation libraries, agencies, and organizations; facilitates the development of transportation library consortia; and leads the community in adopting new technologies to manage and provide access to information; and
- Offers professional reference, referral, and training services to help customers find statistics, reports, and transportation experts.

During FY 2008, the National Transportation Library's Reference Team handled more than 3,000 requests per month for information about transportation regulations, policy, statistics, and research. These requests came from Congress, all other levels of government, the media, academia, for-profit and nonprofit organizations, and the general public.

In FY 2008, the NTL added several new collections to the NTL Digital Repository. A set of early publications from the Eno Transportation Foundation, containing documents ranging from 1909 to 1978, was added in March 2008. The Foundation donated these documents to the NTL for public use so that students and researchers will always be able to access these important resources. The Virginia Department of Transportation (VDOT) Research Library digitized its entire run of VDOT research reports, dating from the early 20th century, and provided them to the NTL for public access. The collection of over 2,000 documents will continue to grow as new VDOT research reports are published. The *Urban Transportation Monitor* published an article about the VDOT partnership, which provides a model for other state DOTs to provide access to their research through not only their websites, but also through the NTL Digital Repository, a centralized collection of transportation information.

The NTL also added the entire contents of the Intelligent Transportation System Joint Program Office's Electronic Digital Library (EDL) to the NTL Digital Repository in July 2008. The EDL is an NTL Collection View, which provides specific user communities with a separate search interface that displays only their own collections and appears as their own website, while simultaneously appearing as part of the NTL Digital Repository. The new EDL is available at www.its.dot.gov/library.htm. The collection

of over 3,000 documents will continue to grow as new documents are added to the EDL.

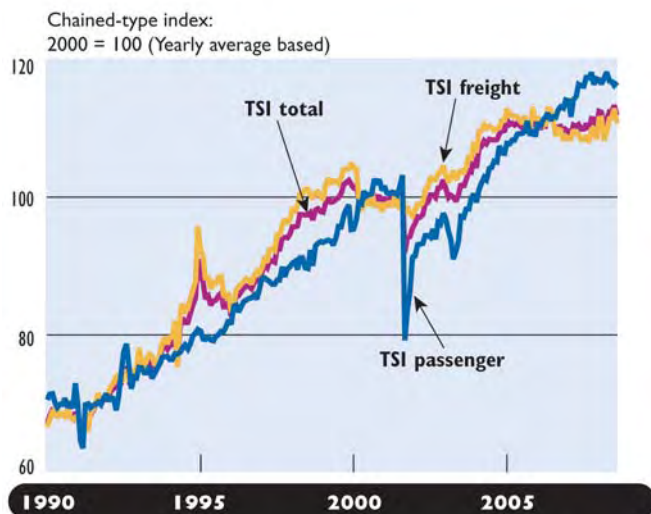
► *Transportation Services Index*

The Transportation Services Index (TSI) is a monthly measure of the volume of services performed by the for-hire transportation sector. It is the only national, multimodal, seasonally adjusted economic gauge of both passenger and freight transportation activity. It is released each month on a published schedule.

The TSI covers the activities of for-hire freight carriers, for-hire passenger carriers, and a combination of the two. The freight transportation index consists of for-hire trucking, freight railroad services, inland waterway traffic, pipeline movements, and air freight. The passenger transportation index consists of local mass transit, intercity passenger rail, and passenger air transportation. These components were selected to give the best coverage possible of the for-hire transportation industry.

The TSI tracks monthly fluctuations in the output of transportation services. Together with other economic indicators, the index contributes to a better understanding of the current and future course of the economy.

Seasonally Adjusted Transportation Services Index: 1990 - 2008



Sharing Transportation Statistical Knowledge

The third component of BTS as a knowledge-based organization is its capacity to share knowledge with stakeholders and constituents of America's

transportation systems. BTS continuously disseminates information through its publications and popular web site.

► *Collaboration with Transportation Data Users and Producers*

BTS provides expert support for the National Academies' Transportation Research Board (TRB) and its committees. BTS presentations at the TRB FY 2008 annual and mid-year meetings addressed a variety of transportation-related topics. BTS staff provided peer reviews for numerous TRB papers and are active members of TRB committees, including the Economic, Travel Survey Methods, Hazardous Materials Transportation, Freight Transportation Data, Statistical Methodology, and Statistical Computer Software committees. Bureau staff participated in project panels for several of TRB's Cooperative Research Programs, such as the National Cooperative Freight Research Program and the Hazardous Materials Cooperative Research Program. In September 2008, BTS also cosponsored a North American Freight Flows Workshop with TRB and other USDOT agencies, in Irvine, CA. For information on this conference, go to www.trb.org/conferences/2008/NAFF.



BTS leads the Maritime Data Working Group, which recently published the third edition of the *Maritime Trade and Transportation* report. The Committee on the Maritime Transportation System (CMTS) is led by the USDOT and includes other federal agencies with responsibility for an aspect of the U.S. marine transportation system. Members of the working group are the U.S. Maritime Administration, Saint Lawrence Seaway Development Corporation, U.S. Army Corps of Engineers, U.S. Coast Guard, Federal Maritime Commission, U.S. Department of Agriculture, the Committee on the Maritime Transportation System, and the Transportation Security Administration.

BTS hosts and regularly updates the Maritime Data Working Group website, www.bts.gov/programs/maritime_data_working_group, which contains data and statistics, the mission statement, and several joint publications as well as links to the Group members' websites. BTS also actively supports the CMTS.

BTS staff provided the CMTS with data descriptions and sources for the Marine Transportation System Data Inventory, which BTS reviewed and beta tested. The agency also evaluated and commented on the Maritime Administration's 2008 Maritime Operator Survey Concerning Mariner Availability and reviewed the *2008 Glossary of Shipping Terms* publication.

The Transportation Librarians Roundtable is a new FY 2008 initiative of the National Transportation Library (NTL). This fiscal year, 98 librarians and information professionals throughout the community participated in the monthly web conference, with an average of 36 people attending each session. Topics have covered special projects, innovative technologies, library marketing, and skill development—such as how to use the *Transportation Research Thesaurus*.

The NTL actively supports the activities of three regional knowledge networks: Eastern, Midwest, and Western. The NTL provides leadership and coordination of projects in each of the regions. For example, the Eastern Transportation Knowledge Network Digital Collaboratory is a project to increase the availability and accessibility of high-value, high-use resources from each member library in the eastern network. In FY 2008, the NTL coordinated the first cooperative project among all three networks, a milestone in the establishment of a national transportation knowledge network. The resource sharing project is increasing cooperation and information exchanges between libraries, resulting in improved access to information for transportation professionals.

In FY08, the Product Distribution Center distributed 3,541 publications in response to orders from the BTS Bookstore or orders@bts.gov.

► Publications

BTS publishes a variety of reports and products to meet the needs of transportation system stakeholders. All BTS publications can be downloaded from the BTS website or obtained in hardcopy from the BTS bookstore at www.bts.gov.

In FY 2008, BTS disseminated approximately 12 million BTS products electronically. These products include BTS publications, datasets, and other resources made available through www.bts.gov.

Special Reports:

- *Highlights of the 2006 National Census of Ferry Operators*
- *Cell Phone Use on Airplanes, Congestion, and Telecommuting—Opinions from the 2006 and the 2007 Omnibus Household Survey*
- *Data-Driven Risk Models Could Help Target Pipeline Safety Inspections*
- *Sitting on the Runway: Current Aircraft Taxi Times Now Exceed Pre-9/11 Experience*
- *U.S.-China Trade Growth and America's Transportation System*
- *Trends in Personal Income and Passenger Vehicle Miles*

Technical Reports:

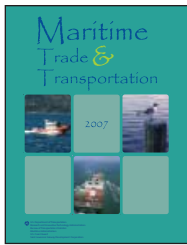
- *Seasonal Variation in Traffic Congestion: A Study of Three U.S. Cities*
- *Multiple Imputation of Missing Passenger Boarding Data in the National Census of Ferry Operators*
- *Uncovering Trends in Seasonal Transportation Data*
- *Transportation Services Index and the Economy*

BTS routinely produces multimodal compilations of statistics on selected topics. The following publications were updated in FY 2008:

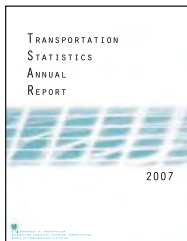


The **Pocket Guide to Transportation**, valued by a wide variety of audiences, is a quick reference to the changes in the U.S. transportation system over time and their impact on the Nation's economy, safety, energy use, and the environment. Published annually, the BTS *Pocket Guide* has been used as a model by USDOT's Maritime Administration for its U.S.

Water Transportation Statistical Snapshot, and also by Eurostat.



The third edition of the **Maritime Trade and Transportation Report** was prepared in support of the Committee on Marine Transportation System (CMTS), a major effort to better coordinate marine transportation system activities, resources, and regulations.

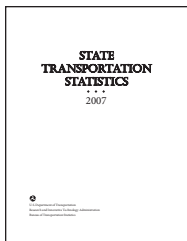


The **Transportation Statistics Annual Report** presents transportation facts and modal indicators, the current state of transportation statistics, the economic and social impacts of the U.S. transportation system, and several maps. The latest version is due to be published by BTS in FY

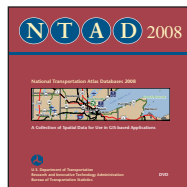
2009 and will include transportation data on the 13 topics specified in the Bureau's legislative mandate.



National Transportation Statistics, updated quarterly online, presents a comprehensive compilation of statistics on the U.S. transportation system, including more than 260 data tables.



State Transportation Statistics presents a statistical profile of transportation in the 50 states and the District of Columbia, and is updated annually.



The **National Transportation Atlas Database (NTAD)** DVD comprises a set of 26 nationwide geographic databases of transportation facilities, transportation networks, and associated infrastructure and safety

that is compiled and distributed annually via disc and online.

In FY 2008, the NTAD 2007 webpage had 9,631 visits. The index page for NTAD had 3,350 visits in FY 2008.

In FY 2008, new data related to transportation safety and infrastructure were added to the NTAD, including Railroad Crossings, National Bridge Inventory, and Alternative Fuel facilities. The data used to compile

NTAD are provided by partners within the USDOT and by other federal government agencies. BTS performs structured quality evaluations on the NTAD databases as they are incorporated into research and analysis projects. The annual NTAD releases are sought after by many in the transportation community and support research, analysis, and decision making across all modes of transportation. They are most useful at the national level, but have major applications at regional, state, and local levels throughout the transportation community.

The total number of visits to the BTS website, www.bts.gov, was 5,572,980 in FY 2008.

The following were new publications in FY 2008, many of which are related to BTS collaborations and outreach efforts:

- In cooperation with the Council of University Transportation Centers, the National Transportation Library (NTL) began hosting the CUTC *Journal for Transportation Research* in FY 2008. The entire publication process is electronic, from submission to publication. All published articles will be archived in the NTL Digital Repository.
- Three papers were prepared for the 2008 Joint Statistical Meetings:
 1. *Quality Assurance Research of the 2007 Commodity Flow Survey*,
 2. *An Analysis of Nonresponse Bias in the Omnibus Survey*, and
 3. *A Quasi-Likelihood Generalized Linear Regression Analysis of Transportation-Related Fatality Data*.
- A paper, entitled *A Primer on Multifactor Productivity: Description, Benefits, and Uses*, was also published by BTS.

► Press Releases

BTS issues regularly scheduled and one-time press releases that focus the attention of the media and the public on BTS products. In FY 2008, monthly press releases provided updates on the Transportation Services Index, airline traffic, passenger airline employment, and North American surface freight; and quarterly press releases issued information on air fares and airline financials.

The Bureau also provided significant support for the Office of the Secretary of Transportation's release of the monthly *Air Travel Consumer Report*, including simultaneously posting online year-to-date on-time performance tables, the ranking of on-time arrival and departure performance at major airports, as well as airline taxi-out times.

► *Web Site*

The BTS web site, www.bts.gov, averaged over 15,000 visitors per day in FY 2008. BTS continually updates its web site with statistics and graphics displays of trends. The web site enables quick response to current events. Features of the BTS home page include recent statistical releases, facts about the airline and freight industries, economic trend data, and links to the National Transportation Library and BTS publications. The interactive capacity of BTS' TransStats web site allows users to select tables, analyze variables, create maps, or download data from a searchable index of over 100 transportation-related databases. BTS also provides, and regularly updates, transportation indicators published on the White House's economic briefing room web site.

BTS SUPPORTS USDOT GOALS

BTS statistical programs and activities support the priorities of the U.S. Department of Transportation – contributing to initiatives in *safety, reducing congestion, global connectivity, environmental stewardship, security, and organizational excellence.*

Safety

BTS collects data and produces studies on the safety and security of travelers, vehicles, and transportation systems. The Omnibus Household Survey collects data on-demand to provide information on the public's use and satisfaction with the transportation system, including personal safety and security while traveling.

BTS is a key partner in the Confidential Close Calls Reporting System (C3RS) Demonstration Project, a major safety initiative sponsored by the Federal Railroad Administration (FRA) that has required BTS to work closely with railroad management and labor as well as the FRA and the Volpe National Transportation Systems Center. Using its unique authority to protect the confidentiality of information collected for

statistical purposes and its expertise in data collection and analysis, BTS developed and operates the C3RS. Railroad employees voluntarily submit reports to BTS on close calls that pose safety risks to railroad operations. BTS collects additional details to prepare an incident analysis report and sends the results, with all identifying information removed, to a Peer Review Team at a pilot site. The Peer Review Team reviews the incident report, determines the underlying causes of the close call, and develops recommended corrective actions to prevent further occurrences.

BTS staff regularly consult and collaborate with USDOT agencies and outside organizations on data collection, survey design, and other statistical issues related to safety matters. Recent examples include advising the Office of the Secretary of Transportation regarding the implementation of new highway safety performance metrics proposed by USDOT's National Highway Traffic Safety Administration (NHTSA), and staff participation on the Hazardous Materials Cooperative Research Program (HMCRP) project panels for Hazardous Materials Commodity Flow Data and Analysis (HM-01) and Hazardous Materials Transportation Incident Data for Root Cause Analysis (HM-02).



BTS safety data and analyses are used in a variety of ways. For instance, the Federal Aviation Administration uses BTS data to evaluate airline safety, allocate safety inspection resources, and assess the adequacy of aviation safety regulations, standards, policies, and procedures.

Reducing Congestion

BTS studies on travel times and congestion measurement help decision makers determine the impact of congestion on the national transportation

system and the U.S. economy. These projects cut across all modes: collecting line-haul speeds and terminal dwell times for railroads, reporting travel speeds and forecasting vehicle miles traveled on highways, and estimating the economic costs of congestion across modes.

The Bureau works collaboratively with the other USDOT modal administrations, for example, using Intelligent Transportation Systems (ITS) data from the FHWA's monthly congestion reports to analyze detailed travel time and speed data from 20 urban areas in the United States. BTS routinely issues press releases about on-time flight performance of the top 10 reporting air carriers, including the number of domestic flight cancellations, causes of flight delays, and rate of mishandled baggage per 1,000 passengers. Targeted analyses explain trends in travel, including airline taxi-out delays. In conjunction with the Transportation Services Index project, BTS provides monthly estimates of aviation revenue passenger miles and revenue ton miles, both of which contribute to the index.

Global Connectivity

Using a wide variety of data sources, BTS provides a detailed picture of the flow of people and goods to and from the United States. The Bureau compiles, validates, analyzes, and disseminates data on trade trends; movement of goods by land, sea, and air; and personal travel. In June, the agency published a special report: *U.S.-China Trade Growth and America's Transportation System*, which was used by the Office of the Secretary of Transportation in the Strategic Economic Dialogue meetings with Chinese government officials.

Monthly, BTS reports TransBorder freight flow data by commodity type, mode of transportation (rail, truck, pipeline, mail, air, and water), and port of entry/exit for U.S. exports to and imports from Canada and Mexico. Customers use these data for a variety of purposes, including trade corridor studies and transportation infrastructure planning. Additionally, the Bureau makes available incoming Border Crossing data for vehicles, containers, passengers, and pedestrians for land ports on the U.S. borders with Canada and Mexico. BTS prepared custom tables of the TransBorder and Border Crossing data for FHWA to calculate the FY 2009 apportionment of funds to states under the Coordinated Border Infrastructure Program.

BTS continued its leadership role in the 14-year-old North American Transportation Statistics Interchange with the federal statistical and transportation agencies of Canada and Mexico. At the 2008 meeting hosted by Mexico, the Interchange countries agreed to update the North American Transportation Statistics Database, which supplies users with an online source of relevant, timely, and comparable transportation data and information for North America.

Bureau staff actively participated in the United Nations Economic Commission for Europe's (UNECE) Working Party on Transport Statistics meeting in Geneva, Switzerland, in May. The UNECE includes Europe, the former Soviet Republics in Central Asia, the United States, and Canada. Involvement by staff included reviewing the draft of a transportation glossary and offering suggestions for incorporating American English terminology.

BTS leads the USDOT effort to develop an international freight data warehouse and interface with the U.S. Department of Homeland Security's Customs and Border Protection Automated Commercial Environment/International Trade Data System. The Agency participates in workshops and meetings with Customs and Border Protection to ensure that needed trade and transportation data are available in the system and to address issues regarding data integration and harmonization. BTS presented plans for the International Freight Data System at the Transportation Border Working Group's Border Data Workshop in June.

BTS also provided, in June, a presentation in London on the U.S. Federal Statistical System at the request of the Official Statistics Section (OSS) of the Royal Statistical Society. BTS currently serves as the U.S. representative on the OSS committee.

Environmental Stewardship

BTS supports environmental stewardship by working collaboratively with national and international entities to share data and perform analyses. BTS represented the United States at the Energy and Environment Working Group of the North American Transportation Statistics Interchange in Manzanillo, Mexico, in May. BTS staff discussed the addition of energy and environmental indicators in the Interchange's on-line

database, and three indicators are expected to be released by Canada, Mexico, and the United States in 2009.

BTS provides statistics and analysis to the USDOT Center on Climate Change and Environmental Forecasting, including its project to examine the effects of sea level rise on the Nation's transportation infrastructure. The Bureau also serves as an active member of the technical oversight panel for the Transportation Research Board's Hazardous Materials Cooperative Research Program. With TRB, BTS staff facilitated a workshop in March on Data for Goods Movement Impacts on Air Quality.



Security, Preparedness, and Response

BTS works with agencies within the USDOT and throughout the government to support efforts to improve the Nation's security, preparedness, and response. BTS staff provide extensive geospatial mapping and analysis support to the USDOT Crisis Management Center (CMC). Geospatial Information Program staff provided support for the CMC's preparedness exercises and their response to incidents and natural disasters, such as the aftermath of hurricane *Katrina*, the Minnesota I-35 bridge collapse, and the flooding along the Mississippi River. In FY 2008, 15 maps were produced and delivered to the Crisis Management Center.

Security and safety are paramount in transporting hazardous materials, especially when shipments travel through major metropolitan areas. According to the Bureau's Commodity Flow Survey, there were 2.2 billion tons of hazardous materials shipments in the United States in 2002—the latest year for which

data are available. While the overwhelming majority of shipments arrive without incident, hazardous material shipments sent by pipelines, truck, and trains are vulnerable to accident or attack. In addition to analyzing the Commodity Flow Survey data, BTS has provided consultation to the Pipeline and Hazardous Materials Safety Administration and its work on oil pipeline sampling and hazardous materials research.

BTS responds to numerous requests for hazardous materials data from the general public. The Bureau's data and analyses are used by metropolitan planning organizations, trade associations, and transportation facilities to analyze trends in travel behavior, forecast future travel demands, and determine infrastructure and equipment needs.

Organizational Excellence

The Bureau is dedicated to ensuring its data and analyses are relevant, timely, comparable, complete, accessible, and of high quality. Data users can count on the timeliness of scheduled releases, such as the monthly releases of the Transportation Services Index, TransBorder data, airline traffic and capacity data, airline on-time flight performance data, and the Air Travel Consumer Report. The Bureau also works with other agencies both within and outside the Department to improve the quality of transportation information.

The Bureau regularly responds to the Office of the Secretary's time-sensitive requests for data and information. In FY 2008, BTS supported and participated in the Office of the Secretary of Transportation's International Policy Council meetings. Staff also provided input for a presentation on Infrastructure Renewal delivered at the U.S.-Canada-Mexico Trilateral Summit.

In FY 2008, the Bureau developed and implemented the BTS Customer Service Feedback System, an online system that collects, tracks, and analyzes customer feedback. Information collected through interactions with customers, including the online survey, comment cards, and customer phone calls, is recorded and updated regularly. The customer feedback reports generated by this new system inform the decisionmaking processes for BTS products and services.

CONTINUING WORK AND A VIEW TOWARD THE FUTURE

In July 2008 BTS held a meeting of the Advisory Council on Transportation Statistics (ACTS). BTS staff briefed the Council on current and planned statistical activities including the International Freight Data System, the Commodity Flow Survey, and National Transportation Library. The Council recommended that BTS examine ways to expand statistical collections on passenger travel and to improve the timeliness, quality, and accessibility of commercial aviation data. Information about the Advisory Council and a copy of the meeting minutes and related materials can be accessed at the Federal Advisory Committee Act website (www.fido.gov/facadatabase) maintained by the General Services Administration.

As one of the designated federal statistical agencies, BTS is a member of the federal Interagency Council on Statistical Policy, chaired by the Chief Statistician, Office of Management and Budget (OMB). The Council meets regularly to discuss best practices, national data needs, and developments throughout the statistical community. More detailed information on the federal statistical agencies is available from the report *Statistical Programs of the United States Government, Fiscal Year 2009*. An electronic version can be accessed through the OMB website (www.whitehouse.gov/OMB).

BTS will continue to explore techniques for more efficient and less costly data collection, including online survey submission and data automation methods. The collection of airline data will be made more efficient

through the use of the internet (e.g., e-filing of reports and data), which promises to expedite data processing and ease the reporting burden on the airlines.

BTS continues to look for new ways to assess and meet the varied needs of its customers. The Bureau is developing strategies for responding to recognized needs and identifying pressing issues within the transportation community. For example, website visits and inquiries will be studied to identify topics of increasing interest and importance.

As BTS continues its course of producing relevant, accurate, and timely transportation data and analyses, it will pursue new opportunities for partnering, collaborating, and sharing information within the U.S. Department of Transportation and with external constituencies and stakeholders to meet the Nation's present and future transportation statistical needs.





PERFORMANCE

RESULTS

RELEVANCE