



U.S. Department  
of Transportation



Bureau of  
Transportation Statistics

# Key Transportation Indicators July 2003



# Table of Contents

Domestic Flights: Air Passengers

Domestic Flights: Air Freight

Domestic Revenue Load Factors

Domestic Flight Availability and Distance

Major U.S. Air Carrier On-Time Performance

Domestic Airline Jet Fuel

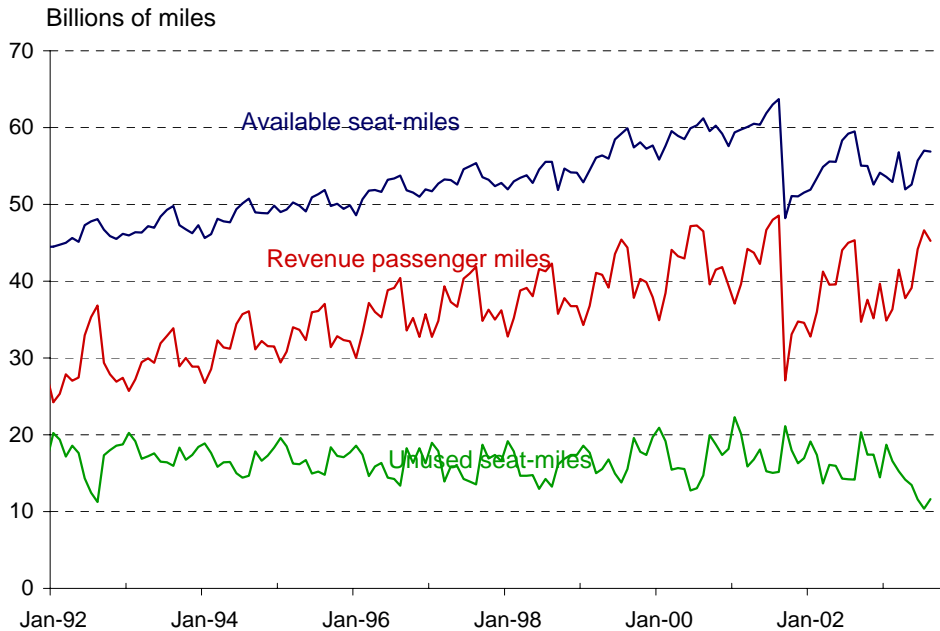
U.S. Foreign Waterborne Freight

U.S. Surface Trade U.S.-Canada and U.S.-Mexico



## Domestic Flights: Air Passengers

### Domestic Air Seat and Passenger Miles (monthly data, not seasonally adjusted)



Revenue passenger-miles are a measure of the volume of air passenger transportation. Unused seat-miles (the difference between available seat-miles and revenue passenger miles) are used as a measure of airline capacity utilization. Another measure is the intensity of use of the equipment.

NOTE: A revenue passenger-mile is equal to one paying passenger carried one mile. Available seat-miles for an individual flight are the number of seats multiplied by the distance traveled. The data include both transborder and foreign flights by large U.S. carriers, but not include any flights by foreign carriers.

<b>Domestic Passenger Aviation</b>	<b>Aug-02</b>	<b>Aug-03</b>
Available seat-miles (billions)	59.49	56.86
Percent change from same month previous year	-6.62	-4.42
Revenue passenger-miles (billions)	45.31	45.24
Percent change from same month previous year	-6.67	-0.16
Unused seat-miles (billions)	14.18	11.63
Percent change from same month previous year	-6.46	-18.01

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality. The data have been adjusted to have a standard 30-day month by multiplying the data for each month by the ratio: 30/(actual days in month).

These indicators are components of the passenger and overall aircraft load factors displayed in "Aircraft Utilization—Passengers and Freight."

The dramatic changes in the September 2001 data reflect the impact of the terrorist attacks on Sept. 11, 2001, on aviation, including several days in which commercial air operations were suspended.

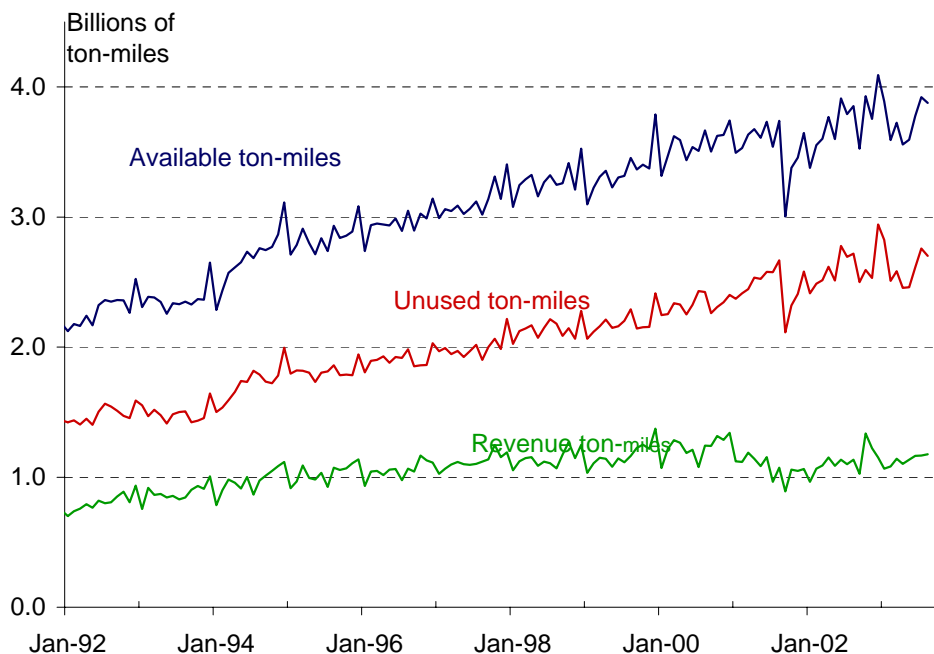
The data reported here excludes small-certificated and commuter carriers that began reporting T100 data in 2002 for comparability with previous issue.

Refer to the Special Notes at <http://www.bts.gov/oai/indicators/top.html> for specific concerns regarding the preliminary nature of the most recent data for latest issue of Air Carrier Traffic Statistics Monthly.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, Air Carrier Traffic Statistics Monthly, November 2003.

## Domestic Flights: Air Freight

### Domestic Air Freight Ton-Miles (monthly data, not seasonally adjusted)



Though still much smaller than air passenger transportation, air freight is an increasingly important revenue source for the air transportation industry. It includes both freight handled by dedicated air cargo handlers and air cargo shipped on combined passenger and air freight carriers (passenger luggage is not considered cargo for this purpose).

Unused ton-miles are the difference between available ton-miles and revenue ton-miles utilized. Changes in the level of spare capacity might be an indicator of the timely availability of air freight services. For example, a shipper with a sudden need for service will be more likely to obtain an appropriate flight when spare capacity is higher. Space limitations also affect the availability of air freight services.

<b>Domestic Freight Aviation</b>	<b>Aug-02</b>	<b>Aug-03</b>
Available ton-miles (billions)	3.85	3.88
Percent change from same month previous year	3.03	0.65
Unused ton-miles (billions)	2.72	2.70
Percent change from same month previous year	1.94	-0.65
Revenue ton-miles (billions)	1.13	1.18
Percent change from same month previous year	5.75	3.76

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality.

A revenue ton-mile is equal to one ton carried one mile and measures utilization of air-freight services. The data include both transborder and foreign flights by large U.S. carriers, but not include any flights by foreign carriers.

For those planes that carry both freight and passengers, available freight ton-miles are calculated by subtracting available seat-miles times 0.1 from total available ton-miles. The data have been adjusted to have a standard 30-day month by multiplying the data for each month by the ratio:  $30/(\text{actual days in month})$ . These indicators are components of freight and overall aircraft load factors displayed in "Aircraft Capacity Utilization—Passengers and Freight."

The dramatic changes in the September 2001 data reflect the impact of the terrorist attacks on Sept. 11, 2001, on aviation, including several days in which commercial air operations were suspended.

The data reported here excludes small-certificated and commuter carriers that began reporting T100 data in 2002 for comparability with previous issue.

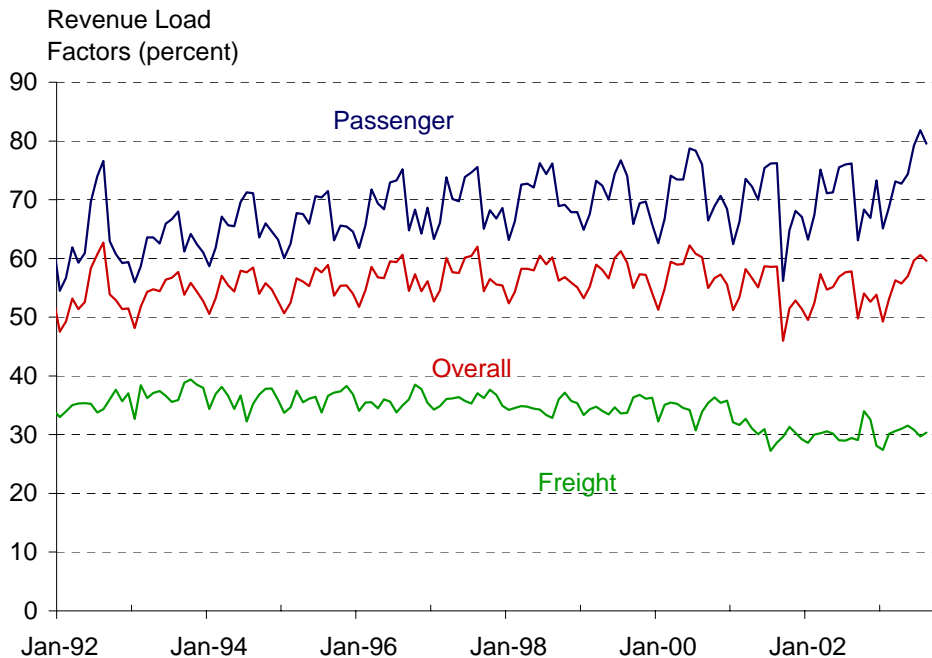
Refer to the Special Notes at <http://www.bts.gov/oai/indicators/top.html> for special concerns regarding the preliminary nature of the most recent data for latest issue of Air Carriers Traffic Statistics Monthly.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, Air Carrier Traffic Statistics Monthly, November 2003.



## Domestic Revenue Load Factors

### Domestic Aircraft Revenue Load Factors (monthly data, not seasonally adjusted)



Aircraft load factors are used to measure aircraft in-flight capacity utilization.

Domestic Revenue Load Factors (percent)	Aug-02	Aug-03
Passenger revenue load factors	76.17	79.56
Change from same month previous year	-0.04	3.39
Overall aircraft revenue load factors	57.80	59.61
Change from same month previous year	-0.83	1.80
Freight revenue load factors	29.43	30.34
Change from same month previous year	0.76	0.91

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality.

Load factor related to the potential capacity of a system relative to its actual performance. In order to combine passenger and freight to calculate overall aircraft load factors, a common metric is needed: ton-miles. Thus, it is assumed that a passenger plus baggage weighs 200 pounds. The data include both transborder and foreign flights by large U.S. carriers, but do not include any flights by foreign carriers.

The dramatic changes in the September 2001 data reflect the impact of the terrorist attacks on Sept. 11, 2001, on aviation, including several days in which commercial air operations were suspended.

The data reported here excludes small-certificated and commuter carriers that began reporting T100 data in 2002 for comparability with previous issues.

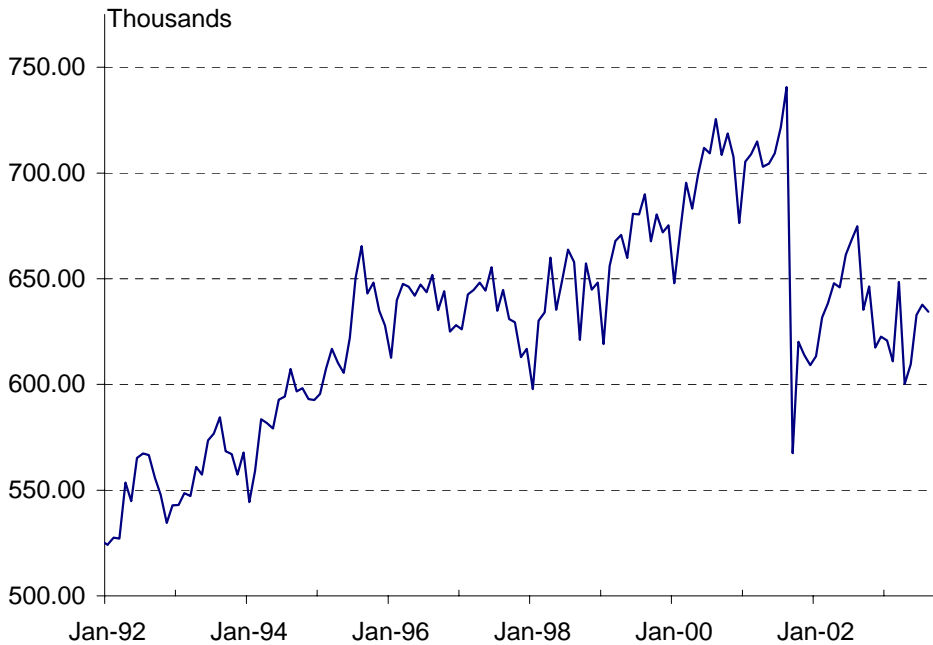
Refer to the Special Notes at <http://www.bts.gov/oai/indicators/top.html> for specific concerns regarding the preliminary nature of the most recent data for latest issue of Air Carrier Traffic Statistics Monthly.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, Air Carrier Traffic Statistics Monthly, November 2003.

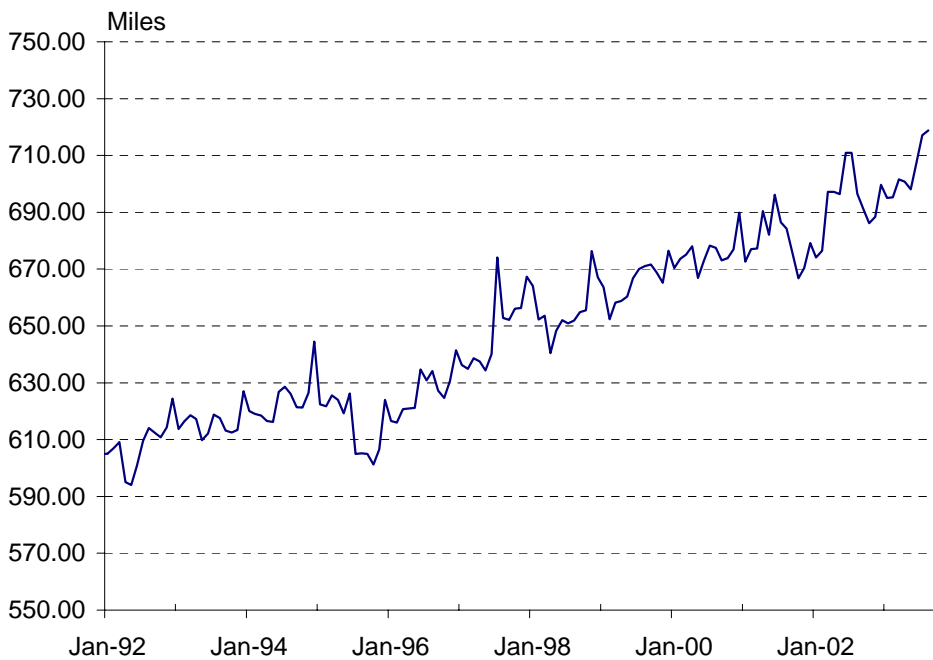


## Domestic Flight Availability and Distance

### Domestic Revenue Aircraft Departures (monthly data, not seasonally adjusted)



### Average Domestic Flight Stage Length (monthly data, not seasonally adjusted)



Frequency of aircraft departures, the number of connections required for a single trip, and the match between available flights and travelers' desired origin and destination points are all important determinants of scheduling convenience. Because data on connections are currently not available in a suitable format, flight stage length is used here to supplement the information on departures.

Flight stage length is the distance between take-off airport and landing airport. If the mix of origin and destination points are held constant, then an increase in flight stage length implies fewer connections are required for a trip and, therefore, higher quality of air passenger services.

The key relation is that departures and flight stage length will tend to move in opposite directions when changes are due to changes in the number of connections. For example, a trip from city A to city B with a connection in city C will have two departures, but generally a shorter average flight stage length, than the direct flight from A to B with a single departure.

<b>Domestic Flight Availability</b>	<b>Aug-02</b>	<b>Aug-03</b>
Revenue aircraft departures (thousands)	675	634
Percent change from same month previous year	-8.88	-5.98
Flight stage length (miles)	697	719
Percent change from same month previous year	1.80	3.19

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality.

The data have been adjusted to have a standard 30-day month by multiplying the data for each month by the ratio: 30/(actual days in month).

The data include both transborder and foreign flights by large U.S. carriers, but not include any flights by foreign carriers.

The dramatic changes in the September 2001 data reflect the impact of the terrorist attacks on Sept.11, 2001, on aviation, including several days in which commercial air operations were suspended.

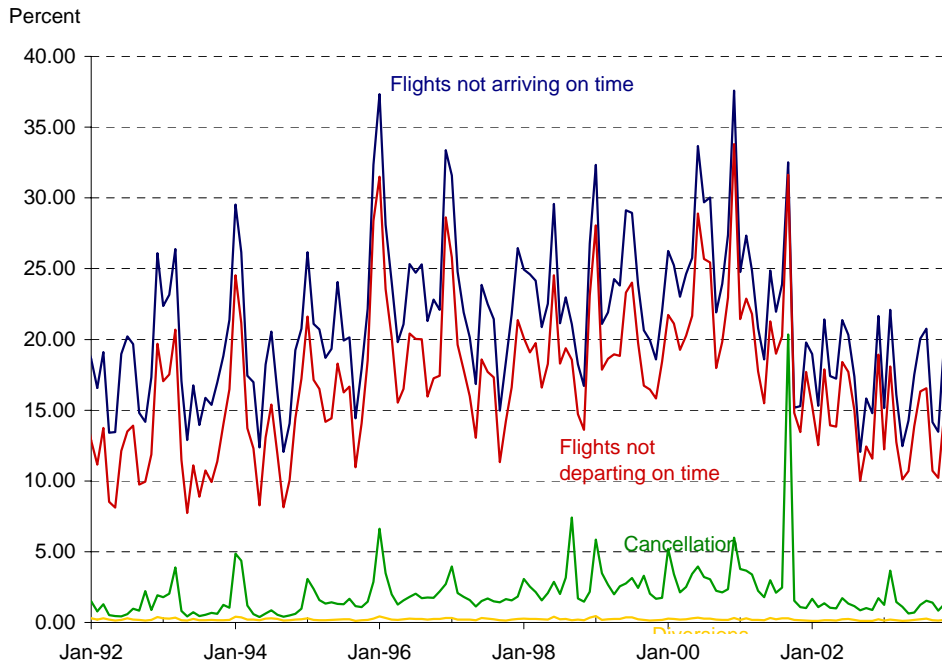
The data reported here excludes small-certificated and commuter carriers that began reporting T100 data in 2002 for comparability with previous issues.

Refer to the Special Notes at: <http://www.bts.gov/oai/indicators/top.html> for specific concerns regarding the preliminary nature of the most recent data for latest use of Air Carrier Traffic Statistics Monthly.

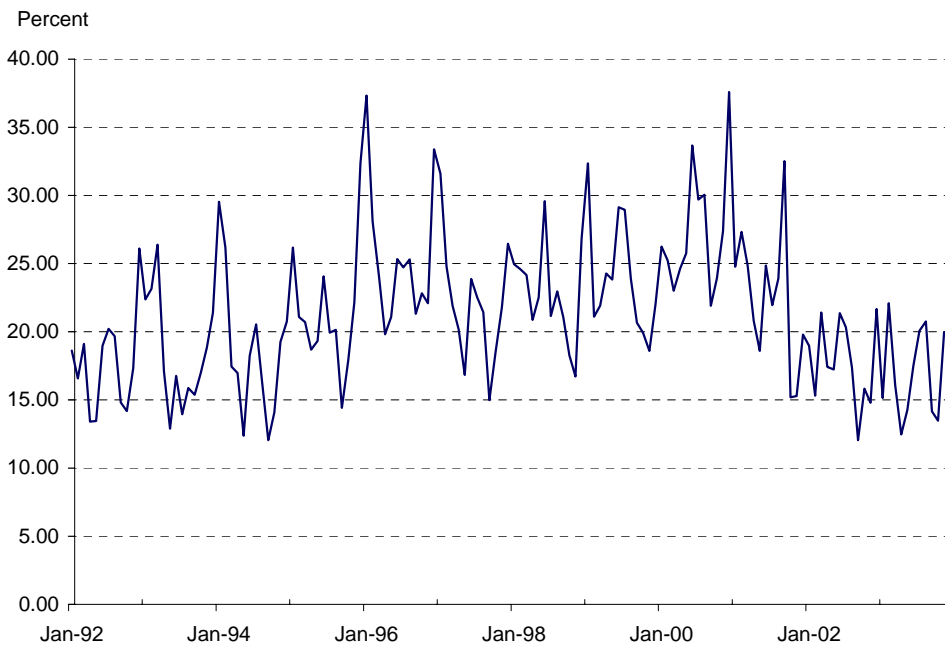
SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, Air Carrier Traffic Statistics Monthly, November 2003.

# Major U.S. Air Carriers On-time Performance

## Major U.S. Air Carriers On-Time Performance (monthly data, not seasonally adjusted)



## Flights Not Arriving On-Time (monthly data, not seasonally adjusted)



The number of flights not departing or arriving on time, cancellations, and diversions are measures of service quality. These indicators are strongly seasonal and are affected by weather and heavy demand in winter and summer months, respectively.

<b>On-Time Performance</b>	<b>Nov-02</b>	<b>Nov-03</b>
Number of scheduled flights	415,004	392,762
Percent change from same month previous year	8.37	-5.36
Percent of flights not arriving on time	14.80	19.98
Change from same month previous year	-0.50	5.18
Percent of flights not departing on time	11.58	14.86
Change from same month previous year	-1.87	3.28
Percent of cancelled flights*	0.89	1.28
Change from same month previous year	-0.19	0.39
Percent of diverted flights**	0.11	0.17
Change from same month previous year	-0.04	0.06

\* Also counted in flights not arriving or departing on time.

\*\* Also counted in flights not arriving on time.

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality. Data for American Eagle was included starting in January 2000. Percent changes from January 1999 to January 2000 were calculated based on data excluding American Eagle. Aloha Airlines, which reported on-time statistics for October 2000 through November 2001, has been excluded to retain comparability. Hawaiian Airlines started voluntary reporting the data in November 2003, also has been excluded.

The data cover the 10 largest U.S. air carriers. A scheduled operation consists of any nonstop segment of a flight. The term "late" is defined as 15 minutes after the scheduled departure or arrival time. A cancelled flight is one that was not operated but was listed in a carrier's computer reservation system within seven calendar days of the scheduled departure. A diverted flight is one that left from the scheduled departure airport but flew to a destination point other than the scheduled destination point.

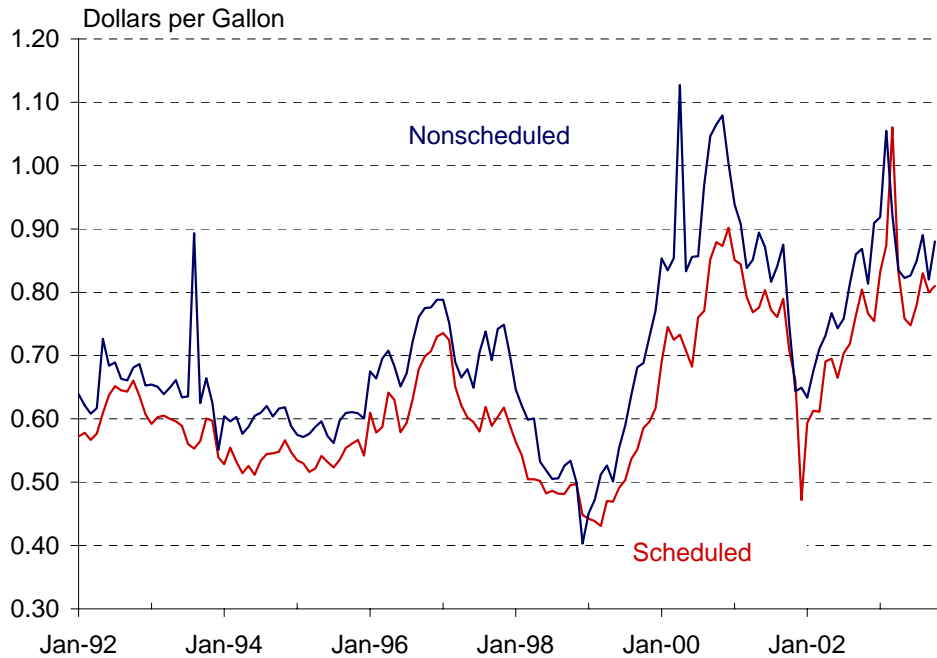
The dramatic changes in the September 2001 data reflect the impact of the terrorist attacks on September 11, 2001, on aviation, including several days in which commercial air operations were suspended.

Certain flights originating at O'Hare airport and operated by American Airlines (181 flights in April) and United Airlines (256 flights in April) between April 24, 2002 and May 8, 2002 are not included in the calculations due to the participation of these carriers in a pilot test program for enhanced baggage screening. A list of affected flights is available from BTS.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, Airline Service Quality Performance data.

## Domestic Airline Jet Fuel

### Jet Fuel Prices by Type of Service (monthly data, not seasonally adjusted)



Jet fuel prices reported to the Bureau of Transportation Statistics differ from producer prices. Reports to BTS show the cost per gallon of fuel used by an airline during the month rather than the price charged by a producer on a single day. Fuel costs for scheduled airline services reflect contractual and storage advantages available to large buyers, while fuel costs for nonscheduled airline services reflect economic conditions for smaller buyers. Jet fuel prices also reflect seasonality due to both the seasonality of aviation and because jet fuel has similar refining requirements to heating oil.

<b>Current Dollars per Gallon</b>	<b>Oct-02</b>	<b>Oct-03</b>
For nonscheduled airlines	0.87	0.88
Percent change from same month previous year	16.25	1.32
For scheduled airlines	0.80	0.81
Percent change from same month previous year	13.60	0.71

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality.

Data for July 2003 to October 2003 are preliminary due to late reports by carriers.

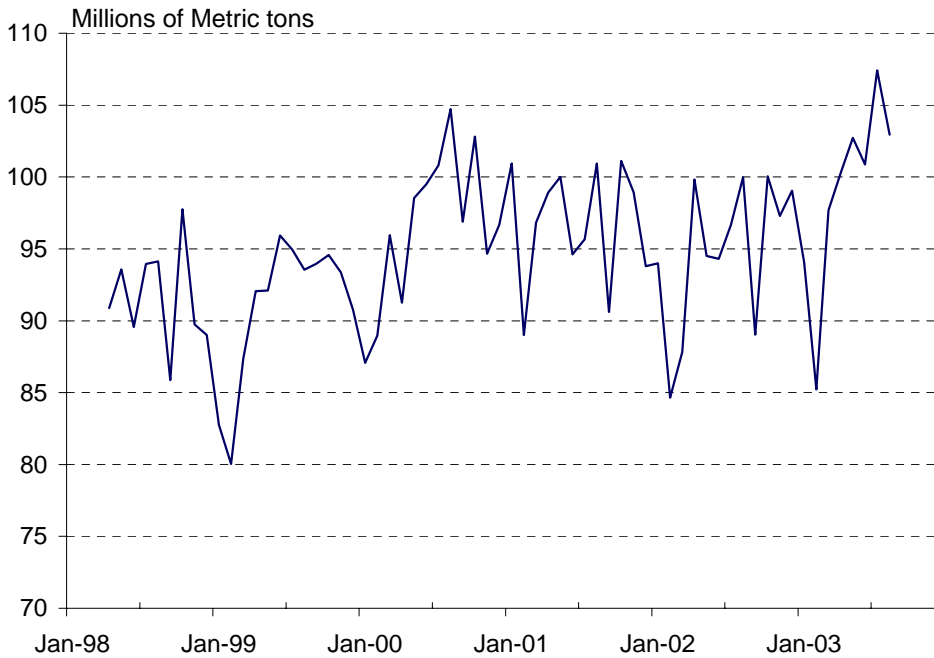
SOURCE: Bureau of Transportation Statistics, Office of Airline Information, December, 2003; available at: <http://www.bts.gov/oai>.





## U.S. Foreign Waterborne Freight

### Tonnage of U.S. Waterborne Imports and Exports (monthly data, not seasonally adjusted)



Import and export tonnage helps identify the volume of cargo flowing through U.S. ports and the resulting vessel traffic on U.S. coastal waters. It also helps identify needs for intermodal truck and rail traffic.

Most U.S. coastal ports handle both foreign and domestic cargoes.

<b>U.S. International Freight</b>	<b>Aug-02</b>	<b>Aug-03</b>
Total waterborne metric tons (thousands)	99,991	102,946
U.S. international freight percent change from same month previous year	-0.95	2.96
2003 data are preliminary.		

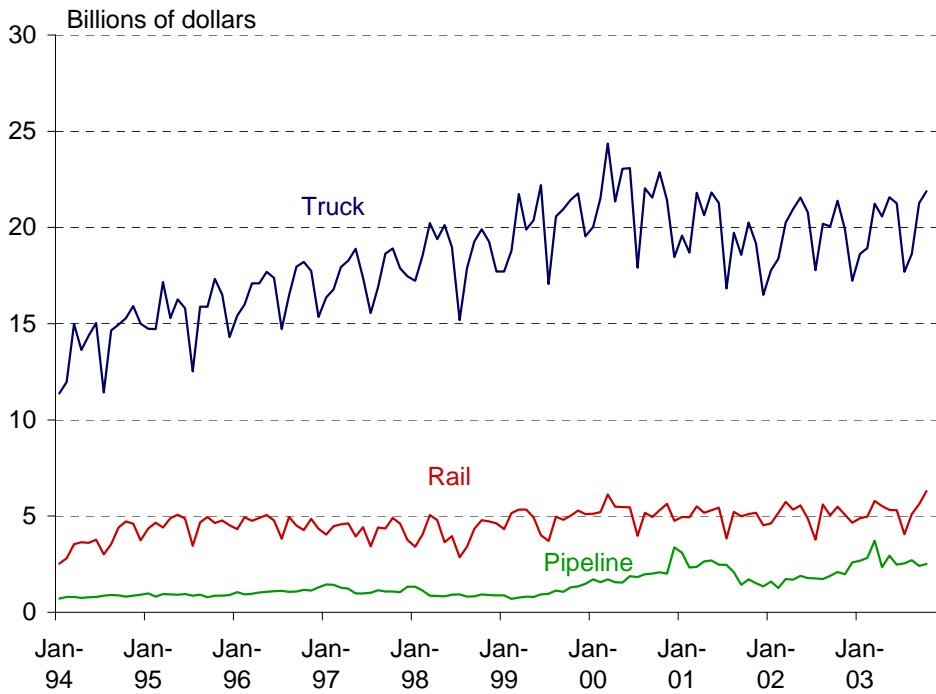
NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality.

A metric ton is equal to 2,204.6 pounds.

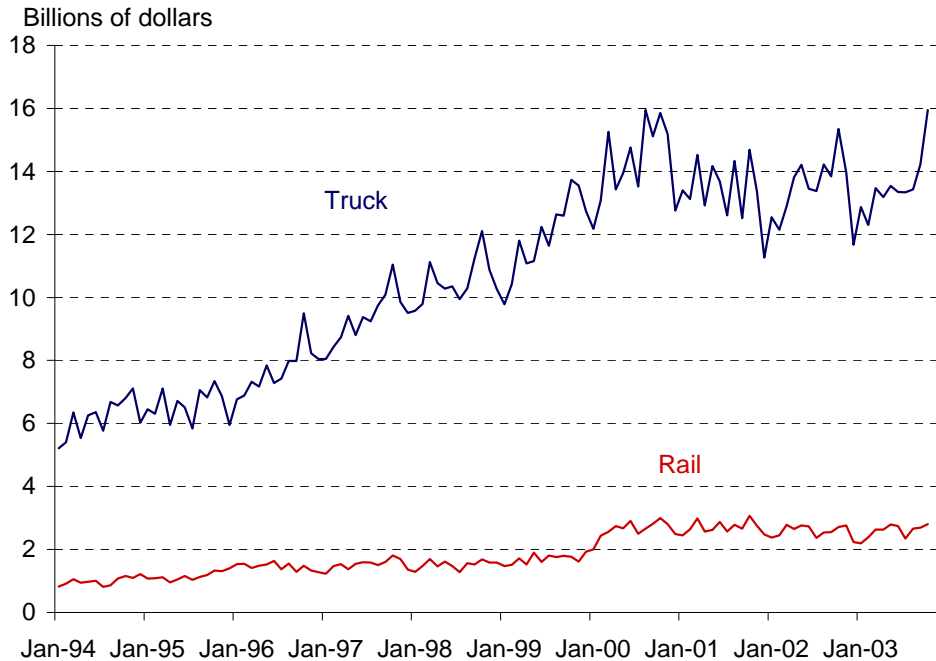
SOURCE: U.S. Department of Transportation, Maritime Administration, Office of Statistical and Economic Analysis, U.S. Foreign Waterborne Transportation Statistics data, December 2003, available at: <http://www.marad.dot.gov/statistics/usfwts/index.html>.



**U.S. Surface Trade: U.S.-Canada and U.S.-Mexico**  
**Value of U.S.-Canada Trade (monthly data, not seasonally adjusted)**



**Value of U.S.-Mexico Trade (monthly data, not seasonally adjusted)**



Surface freight is useful in monitoring the value and modal patterns of trade with Canada and Mexico, our North American Free Trade Agreement (NAFTA) partners. Canada is our largest trading partner, while Mexico now ranks second. Surface modes include not only truck, rail, and pipeline (shown here), but also government mail and other miscellaneous modes.

<b>U.S. - Canada Trade</b>	<b>Oct-02</b>	<b>Oct-03</b>
Truck (millions of dollars)	21,383	21,881
Percent change from same month previous year	5.61	2.33
Rail (millions of dollars)	5,490	6,300
Percent change from same month previous year	7.53	14.75
Pipeline (millions of dollars)	2,089	2,516
Percent change from same month previous year	21.71	20.41

<b>U.S. - Mexico Trade</b>	<b>Oct-02</b>	<b>Oct-03</b>
Truck (millions of dollars)	15,352	15,945
Percent change from same month previous year	4.51	3.86
Rail (millions of dollars)	2,716	2,803
Percent change from same month previous year	-11.46	3.20
Pipeline (millions of dollars)	66	6
Percent change from same month previous year	126.19	-90.48

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: Data obtained from the U.S. Department of Commerce, Census Bureau by the U.S. Department of Transportation Bureau of Transportation Statistics, Transborder Surface Freight Dataset; December, 2003; available at: <http://www.bts.gov/ntda/tbscd/prod.html>.

