



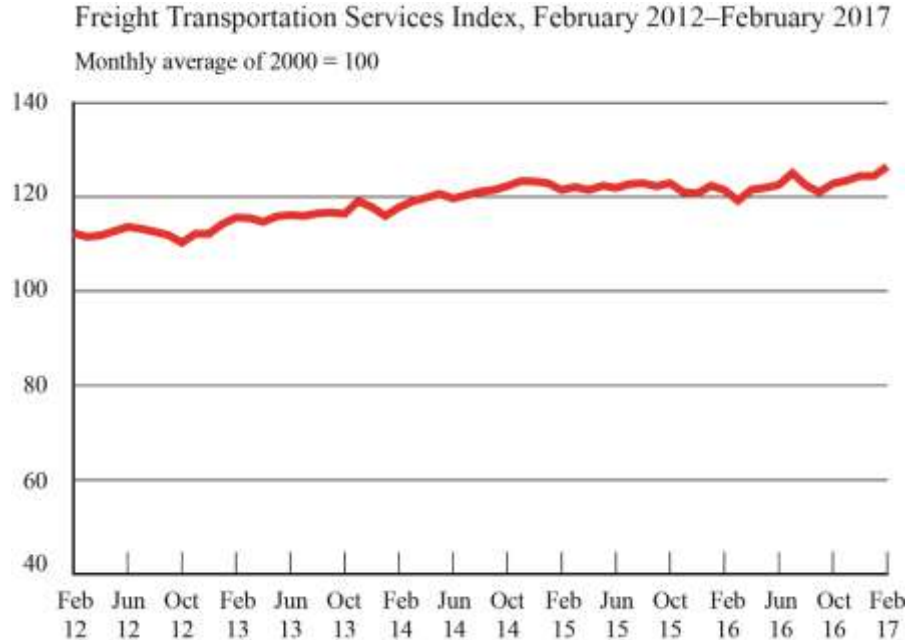
U.S. Department of Transportation  
Office of Public Affairs  
1200 New Jersey Avenue, SE  
Washington, DC 20590  
<http://www.dot.gov/briefingroom>

## BTS Data

BTS 18-17  
Wednesday, April 12, 2017  
Contact: Dave Smallen  
Tel: 202-366-5568  
[david.smallen@dot.gov](mailto:david.smallen@dot.gov)

### February 2017 Freight Transportation Services Index (TSI)

The Freight Transportation Services Index (TSI), which is based on the amount of freight carried by the for-hire transportation industry, rose 1.5 percent in February from January, rising after remaining unchanged in January from December, according to the U.S. Department of Transportation's Bureau of Transportation Statistics' (BTS). The February 2017 index level (126.4) was 33.5 percent above the April 2009 low during the most recent recession (Tables 1, 2, and 2A).



The level of for-hire freight shipments in February measured by the Freight TSI (126.4) reached its all-time high (Table 2A). BTS' TSI records begin in 2000. See historical [TSI data](#).

The December and January indexes were both revised to 124.5 from 123.2 in last month's release.

The Freight TSI measures the month-to-month changes in for-hire freight shipments by mode of transportation in tons and ton-miles, which are combined into one index. The index measures the output of the for-hire freight transportation industry and consists of data from for-hire trucking, rail, inland waterways, pipelines and air freight. The TSI is seasonally-adjusted to remove regular seasons from month-to-month comparisons.

**Analysis:** The February increase in the Freight TSI was broad based, with growth in all freight transportation modes except pipeline. The increase took place against a background of upward signals in other economic indicators. [Employment](#), [Housing Starts](#), and [Personal Income](#) all grew in February, and the Institute for Supply Management's Purchasing Managers' Index showed positive and accelerating growth. The [Federal Reserve Board Industrial Production index](#) was unchanged, with growth in manufacturing and mining offset by decline in utility output.

**Trend:** The Freight TSI reached an all-time high in February, exceeding its previous high, in July 2016, by 1.0 percent. After a period of 32 months beginning in April 2014 and continuing to November 2016 when the index, with only two exceptions, fluctuated between 119.7 and 123.5, the Freight TSI has now reached or exceeded 124.5 for three months in succession. The February increase represented the fifth month in succession when Freight TSI increased or was stable, for an overall increase of 4.5 percent, following two months of decline (a decrease of 3.3 percent). These changes immediately followed a similar pattern, of four months of growth (an overall increase 4.9 percent) following two months of decline (2.6 percent). During the 13-months from January 2016 to February 2017, freight shipments rose 3.3 percent. The February index was 33.5 percent above the April 2009 low during the most recent recession. For additional historical data, go to [TSI data](#).

**Index highs and lows:** For-hire freight shipments in February 2017 (126.4) were 33.5 percent higher than the recent low in April 2009 during the recession (94.7). The February 2017 level reached its all-time high (Table 1A).

**Year to date:** For-hire freight shipments measured by the index were up 1.5 percent in February compared to the end of 2016 (Table 3).

**Long-term trend:** For-hire freight shipments are up 12.6 percent in the five years from February 2012 and are up 14.5 percent in the 10 years from February 2007 (Table 5).

**Same month of previous year:** February 2017 for-hire freight shipments were up 4.0 percent from February 2016 (Tables 4, 5).

The TSI has three seasonally-adjusted indexes that measure changes from the monthly average of the base year of 2000. The three indexes are freight shipments, passenger travel and a combined measure that merges the freight and passenger indexes. See [Seasonally-Adjusted](#)

[Transportation Data](#) for numbers for individual modes. TSI includes data from 2000 to the present. Release of the March 2017 index is scheduled for May 10.

**Passenger Index:** The TSI for passengers fell 0.3 percent in February from its January level (Table 6). The Passenger TSI February 2017 level of 125.1 was 1.1 percent above the February 2016 level (Table 7). The index is up 7.0 percent in five years and up 10.1 percent in 10 years (Table 5). The passenger TSI measures the month-to-month changes in travel that involves the services of the for-hire passenger transportation sector. The seasonally-adjusted index consists of data from air, local transit and intercity rail.

**Combined Index:** The combined freight and passenger TSI rose 0.9 percent in February from its January level (Table 8). The combined TSI February 2017 level of 126.0 was 3.0 percent above the February 2016 level (Table 9). The combined index is up 10.8 percent in five years and up 12.9 percent in 10 years (Table 5). The combined TSI merges the freight and passenger indexes into a single index.

**Revisions:** Monthly data has changed from previous releases due to the use of concurrent seasonal analysis, which results in seasonal analysis factors changing as each month's data are added.

BTS research has shown a clear relationship between economic cycles and the Freight and Passenger Transportation Services Indexes. See a [study of this relationship](#) using smoothed and detrended TSI data. Researchers who wish to compare TSI over time with other economic indicators, can use the [FRED database](#), which includes freight, passenger and combined TSI, and which makes it possible to easily graph TSI alongside the other series in that database. See [TSI data on FRED](#).

For a webinar on the TSI, see [Past Webinars](#). For a video explanation of the TSI, see [Overview of the Transportation Services Index](#). A BTS report explaining the TSI, [Transportation Services Index and the Economy](#), is available for download.

**Table 1: Freight, Passenger and Combined Transportation Services Indexes since August 2016**

**Percent Change from Previous Month**

(Seasonally-Adjusted, Monthly Average of 2000 = 100)

	Freight		Passenger		Combined	
	Index	Pct. Change	Index	Pct. Change	Index	Pct. Change
August	122.5	<b>-2.1</b>	122.7	<b>-1.5</b>	122.6	<b>-1.9</b>
September	121.0	<b>-1.2</b>	124.9	<b>1.8</b>	122.3	<b>-0.2</b>
October	122.8	<b>1.5</b>	123.7	<b>-1.0</b>	123.1	<b>0.7</b>
November	123.5	<b>0.6</b>	124.5	<b>0.6</b>	123.9	<b>0.6</b>
December	124.5	<b>0.8</b>	124.9	<b>0.3</b>	124.7	<b>0.6</b>
January	124.5	<b>0.0</b>	125.5	<b>0.5</b>	124.9	<b>0.2</b>
<b>February</b>	126.4	<b>1.5</b>	125.1	<b>-0.3</b>	126.0	<b>0.9</b>

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

**Table 1A: Annual High and Low Points in Freight Transportation Services Index, 2009-2017**

Year	Month	Peak	Month	Bottom
2009	June	101.5	April	94.7
2013	November	119.1	January	114.3
2014	November	123.4	July	116.0
2015	January	122.9	December	120.8
2016	July	125.1	March	119.2
2017 (thru February)	February	126.4	January	124.5

SOURCE: Bureau of Transportation Statistics

**Table 2: Freight Transportation Services Index Monthly Changes, 2014-2017**  
**Percent change from previous month**

	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>% Change</b>	<b>% Change</b>	<b>% Change</b>	<b>% Change</b>
January	-1.6	-0.3	1.3	0.0
February	1.6	-1.1	-0.7	1.5
March	1.0	0.5	-1.9	
April	0.8	-0.5	2.0	
May	0.7	0.7	0.2	
June	-0.8	-0.4	0.6	
July	0.6	0.7	2.0	
August	0.6	0.2	-2.1	
September	0.3	-0.5	-1.2	
October	0.7	0.5	1.5	
November	0.9	-1.5	0.6	
December	-0.1	-0.2	0.8	

SOURCE: Bureau of Transportation Statistics

**Table 2A: Freight Transportation Services Index by Month, 2014-2017**

	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
January	116.0	122.9	122.4	124.5
February	117.8	121.5	121.5	126.4
March	119.0	122.1	119.2	
April	119.9	121.5	121.6	
May	120.7	122.4	121.9	
June	119.7	121.9	122.6	
July	120.4	122.7	125.1	
August	121.1	122.9	122.5	
September	121.5	122.3	121.0	
October	122.3	122.9	122.8	
November	123.4	121.0	123.5	
December	123.3	120.8	124.5	

SOURCE: Bureau of Transportation Statistics

**Table 3: Freight, Passenger and Combined Transportation Services Indexes Year-to-Date Change, 2008-2017**  
**Percent change to February from December of the previous year**

<b>Year</b>	<b>Freight</b>	<b>Passenger</b>	<b>Combined</b>
2008	0.5	1.6	0.9
2009	0.5	0.1	0.4
2010	3.5	-2.4	1.7
2011	0.6	-1.1	0.1
2012	-2.4	1.0	-1.4
2013	3.0	0.7	2.3
2014	-0.1	-0.4	-0.2
2015	-1.5	-2.2	-1.7
2016	0.6	-0.4	0.2
<b>2017</b>	<b>1.5</b>	<b>0.2</b>	<b>1.0</b>

SOURCE: Bureau of Transportation Statistics

**Table 4: Freight Transportation Services Index from Year-to-Year Percent Change in the February Freight TSI (Monthly average of 2000 = 100)**

	<b>February Freight TSI</b>	<b>Percent change from same month previous year</b>
2008	111.3	0.8
2009	100.9	-9.3
2010	105.1	4.2
2011	109.3	4.0
2012	112.3	2.7
2013	115.6	2.9
2014	117.8	1.9
2015	121.5	3.1
2016	121.5	0.0
<b>2017</b>	<b>126.4</b>	<b>4.0</b>

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

**Table 5: Transportation Services Indexes from Previous Years  
Percent Change to 2017 (February to February)**

Since February ...	Duration in years	Freight TSI Percent change to February 2017	Passenger TSI Percent change to February 2017	Combined TSI Percent change to February 2017
2016	1	4.0	1.1	3.0
2015	2	4.0	5.8	4.6
2014	3	7.3	6.6	7.1
2013	4	9.3	7.2	8.6
2012	5	12.6	7.0	10.8
2011	6	15.6	11.8	14.3
2010	7	20.3	16.0	18.9
2009	8	25.3	13.2	21.4
2008	9	13.6	5.8	10.9
2007	10	14.5	10.1	12.9

SOURCE: Bureau of Transportation Statistics

**Table 6: Passenger Transportation Services Index Monthly Changes, 2014-2017  
Percent change from previous month**

	2014 % Change	2015 % Change	2016 % Change	2017 % Change
January	0.0	-0.7	-0.7	0.5
February	-0.4	-1.5	0.3	-0.3
March	2.1	2.5	-1.5	
April	0.0	0.3	1.6	
May	0.5	0.2	0.2	
June	-0.6	0.6	1.3	
July	0.2	2.0	-1.0	
August	0.3	-2.0	-1.5	
September	-0.2	0.4	1.8	
October	0.4	1.5	-1.0	
November	-0.6	-1.0	0.6	
December	0.8	0.6	0.3	

SOURCE: Bureau of Transportation Statistics

**Table 7: Passenger Transportation Services Index from Year-to-Year  
Percent change in the February Passenger TSI  
(Monthly average of 2000 = 100)**

	<b>February Passenger TSI</b>	<b>Percent change from same month previous year</b>
2008	118.2	4.0
2009	110.5	-6.5
2010	107.8	-2.4
2011	111.9	3.8
2012	116.9	4.5
2013	116.7	-0.2
2014	117.3	0.5
2015	118.2	0.8
2016	123.8	4.7
<b>2017</b>	<b>125.1</b>	<b>1.1</b>

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

**Table 8: Combined Transportation Services Index Monthly Changes, 2014-2017  
Percent change from previous month**

	<b>2014 % Change</b>	<b>2015 % Change</b>	<b>2016 % Change</b>	<b>2017 % Change</b>
January	-1.1	-0.4	0.7	0.2
February	0.9	-1.3	-0.4	0.9
March	1.4	1.2	-1.7	
April	0.6	-0.2	1.8	
May	0.6	0.6	0.2	
June	-0.8	-0.1	0.8	
July	0.5	1.1	1.1	
August	0.5	-0.6	-1.9	
September	0.2	-0.2	-0.2	
October	0.6	0.7	0.7	
November	0.4	-1.4	0.6	
December	0.2	0.2	0.6	

SOURCE: Bureau of Transportation Statistics



**Table 9: Combined Transportation Services Index from Year-to-Year  
 Percent change in the February Combined TSI  
 (Monthly average of 2000 = 100)**

	February Combined TSI	Percent change from same month previous year
2008	113.6	1.8
2009	103.8	-8.6
2010	106.0	2.1
2011	110.2	4.0
2012	113.7	3.2
2013	116.0	2.0
2014	117.7	1.5
2015	120.5	2.4
2016	122.3	1.5
<b>2017</b>	<b>126.0</b>	<b>3.0</b>

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

## **Brief Explanation of the TSI**

The Transportation Services Index (TSI) is a measure of the month-to-month changes in the output of services provided by the for-hire transportation industries. The freight index measure changes in freight shipments while the passenger index measures changes in passenger travel.

The TSI tells us how the output of transportation services has increased or decreased from month to month. The index can be examined together with other economic indicators to produce a better understanding of the current and future course of the economy. The movement of the index over time can be compared with other economic measures to understand the relationship of changes in transportation output to changes in Gross Domestic Product (GDP).

**The freight transportation index** consists of:

- For-hire trucking,
- Railroad freight services (including rail based intermodal shipments such as containers on flat cars),
- Inland waterways transportation,
- Pipeline transportation (including principally petroleum and petroleum products and natural gas), and
- Air freight.

The index does not include international or coastal waterborne movements, private trucking, courier services, or the US Postal Service.

**The passenger transportation index** consists of:

- Local transit,
- Intercity passenger rail, and
- Passenger air transportation.

The index does not include intercity bus, sightseeing services, ferry services, taxi service, private automobile usage, or bicycling and other non-motorized transportation.

The TSI includes only domestic "for-hire" freight and passenger transportation. For-hire transportation consists of freight or passenger transport services provided by a firm to external customers for a fee. The TSI does not include taxi services, paid ride services in personal motor vehicles (e.g., Uber, Lyft, etc.), intercity bus services, in-house transportation (vehicles owned and operated by private firms for their own use), or noncommercial passenger travel (e.g., trips in the household car).