



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 24-17

Wednesday, May 10, 2017

Contact: Dave Smallen

Tel: 202-366-5568

david.smallen@dot.gov

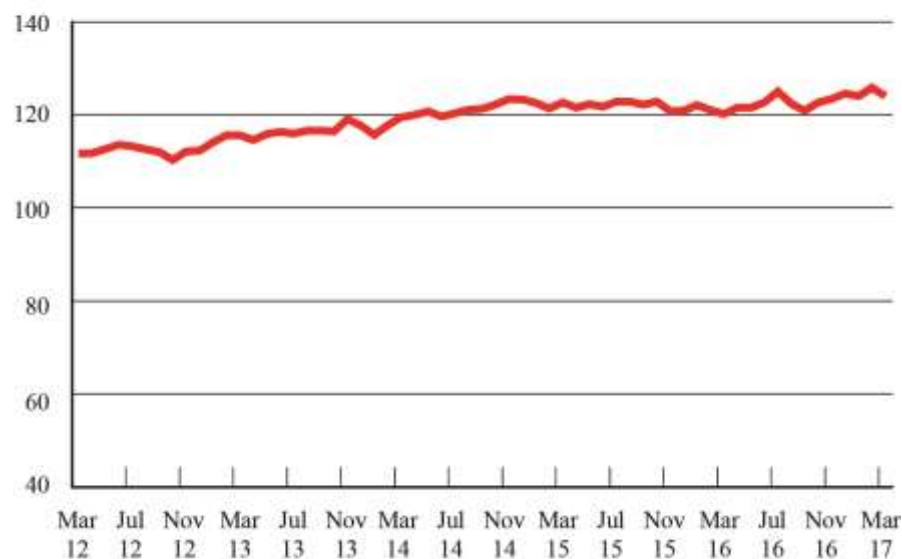
Embargoed until Wednesday, May 10, 2017 11:30 a.m. EDT

March 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, fell 1.5 percent in March from February, falling after reaching an all-time high in February, according to the U.S. Department of Transportation's Bureau of Transportation Statistics' (BTS). The March 2017 index level (124.0) was 30.9 percent above the April 2009 low during the most recent recession (Tables 1, 2, and 2A).

Freight Transportation Services Index, March 2012 - March 2017

Monthly average of 2000 = 100



The level of for-hire freight shipments in March measured by the Freight TSI (124.0) was 1.5 percent below the all-time high level of 125.9 in February 2017 (Table 2A). BTS' TSI records begin in 2000. See historical [TSI data](#).

The February index was revised to 125.9 from 126.4 in last month's release but still remains an all-time high. January was revised up slightly.

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 March Freight TSI declined by 1.5 percent from the previous month due to decreases in trucking, rail carloads, rail intermodal, and water, while air freight and pipeline grew. The decline took place against a background of mixed signals in other economic indicators. [Employment](#) and [Personal Income](#) grew, while housing starts declined. The [Federal Reserve Board Industrial Production index](#) rose by 0.5 percent in March, but this was entirely due to growth in utilities, as manufacturing output declined.

The 0.5 percent first quarter decrease from the previous quarter took place as [Gross Domestic Product](#) (GDP) growth slowed to an annual rate of 0.7 percent from 2.1 percent in fourth quarter 2016, itself a decline from 3.5 percent in the third quarter, while [Industrial Production](#) grew by 0.3 percent (an annual rate of 1.5 percent). The slowdown in GDP growth in the most recent two quarters was preceded by a third quarter decline in Freight TSI and the rapid GDP growth in the third quarter was preceded by a 2.1 percent increase in Freight TSI in the second quarter.

Trend: The 1.5 percent decline of Freight TSI in March 2017 reversed the growth in February and thus brought TSI down from its record high in February back to the level of January 2017. TSI Freight remains at a historically high level – TSI for all four months from December 2016 to March 2017 was above the level for all previous months except for July 2016.

The decline in first quarter 2017 was the sixth quarterly decline out of the nine quarters since December 2014, and was the third largest quarterly decline in that period. Despite the quarterly declines, the index is now 0.6 percent above the level of December 2014. Since the second quarter of 2016 TSI freight has alternated quarters of growth and decline. The index remains high compared to earlier years, rising 30.9 percent since the low of 94.7 in April 2009. For additional historical data, go to [TSI data](#).

Index highs and lows: For-hire freight shipments in March 2017 (124.0) were 30.9 percent higher than the recent low in April 2009 during the recession (94.7). The March 2017 level was 1.5 percent below the historic peak reached in February 2017 (125.9).

Year-to-date: For-hire freight shipments measured by the index were down 0.5 percent in March compared to the end of 2016 (Table 3).

Long-term trend: For-hire freight shipments are up 11.0 percent in the five years from March 2012 and are up 11.0 percent in the 10 years from the pre-recession level of March 2007 (Table 5).

Same month of previous year: March 2017 for-hire freight shipments were up 3.2 percent from March 2016 (Tables 4, 5).

1st quarter changes: The freight TSI fell 0.5 percent in the 1st quarter (Table 10).

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 April 2017 index is scheduled for June 14.

Passenger Index: The TSI for passengers fell 0.5 percent in March from its February level (Table 6). The Passenger TSI March 2017 level of 123.3 was 0.8 percent above the March 2016 level (Table 7). The index is up 6.3 percent in five years and up 5.8 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 fell 1.1 percent in March from its February level (Table 8). The combined TSI March 2017 level of 123.9 was 2.4 percent above the March 2016 level (Table 9). The combined index is up 9.5 percent in five years and up 9.4 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 September 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
September	120.9	-1.2	124.8	1.8	122.2	-0.3
October	122.7	1.5	123.5	-1.0	123.0	0.7
November	123.4	0.6	124.4	0.7	123.8	0.7
December	124.6	1.0	124.7	0.2	124.7	0.7
January	124.0	-0.5	125.0	0.2	124.4	-0.2
February	125.9	1.5	123.9	-0.9	125.3	0.7
March	124.0	-1.5	123.3	-0.5	123.9	-1.1

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	114.1
2014	November	123.4	January	115.7
2015	July	122.8	November	120.8
2016	July	125.0	March	120.2
2017 (thru March)	February	125.9	January and March	124.0

SOURCE: Bureau of Transportation Statistics

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

	2014	2015	2016	2017
	% Change	% Change	% Change	% Change
January	-1.7	-0.6	1.0	-0.5
February	1.8	-1.0	-0.9	1.5
March	1.4	1.1	-0.7	-1.5
April	0.4	-0.9	1.2	
May	0.6	0.6	0.0	
June	-0.9	-0.5	0.9	
July	0.7	0.9	1.9	
August	0.6	0.0	-2.1	
September	0.2	-0.5	-1.2	
October	0.7	0.5	1.5	
November	1.0	-1.6	0.6	
December	-0.1	0.1	1.0	

SOURCE: Bureau of Transportation Statistics

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

	2014	2015	2016	2017
January	115.7	122.6	122.1	124.0
February	117.8	121.4	121.0	125.9
March	119.5	122.7	120.2	124.0
April	120.0	121.6	121.6	
May	120.7	122.3	121.6	
June	119.6	121.7	122.7	
July	120.4	122.8	125.0	
August	121.1	122.8	122.4	
September	121.3	122.2	120.9	
October	122.2	122.8	122.7	
November	123.4	120.8	123.4	
December	123.3	120.9	124.6	

SOURCE: Bureau of Transportation Statistics

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

Year	Freight	Passenger	Combined
2008	-0.8	0.4	-0.5
2009	-4.6	-1.7	-3.7
2010	3.9	0.3	2.8
2011	1.8	0.4	1.4
2012	-3.0	0.3	-2.0
2013	2.9	0.3	2.2
2014	1.5	1.9	1.6
2015	-0.5	0.5	-0.2
2016	-0.6	-1.5	-0.8
2017	-0.5	-1.1	-0.6

SOURCE: Bureau of Transportation Statistics

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

	March Freight TSI	Percent change from same month previous year
2008	109.8	-1.7
2009	95.8	-12.8
2010	105.5	10.1
2011	110.8	5.0
2012	111.7	0.8
2013	115.6	3.5
2014	119.5	3.4
2015	122.7	2.7
2016	120.2	-2.0
2017	124.0	3.2

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 (March to March)**

Since March ...	Duration in years	Freight TSI Percent change to March 2017	Passenger TSI Percent change to March 2017	Combined TSI Percent change to March 2017
2016	1	3.2	0.8	2.4
2015	2	1.1	1.7	1.3
2014	3	3.8	2.8	3.5
2013	4	7.3	6.1	6.9
2012	5	11.0	6.3	9.5
2011	6	11.9	8.6	10.9
2010	7	17.5	11.4	15.7
2009	8	29.4	13.6	24.4
2008	9	12.9	5.6	10.6
2007	10	11.0	5.8	9.4

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	-0.6	-0.7	0.2
February	0.4	-0.5	1.5	-0.9
March	1.4	1.6	-2.2	-0.5
April	-0.1	0.2	1.3	
May	0.4	0.2	0.2	
June	-0.6	0.5	1.3	
July	0.1	2.0	-0.9	
August	0.4	-1.8	-1.7	
September	-0.2	0.3	1.8	
October	0.4	1.4	-1.0	
November	-0.6	-0.9	0.7	
December	0.8	0.6	0.2	

SOURCE: Bureau of Transportation Statistics

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

	March Passenger TSI	Percent change from same month previous year
2008	116.8	0.3
2009	108.5	-7.1
2010	110.7	2.0
2011	113.5	2.5
2012	116.0	2.2
2013	116.2	0.2
2014	119.9	3.2
2015	121.2	1.1
2016	122.3	0.9
2017	123.3	0.8

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**

	2014 % Change	2015 % Change	2016 % Change	2017 % Change
January	-1.2	-0.6	0.4	-0.2
February	1.4	-0.8	-0.2	0.7
March	1.4	1.2	-1.1	-1.1
April	0.3	-0.5	1.2	
May	0.5	0.4	0.1	
June	-0.8	-0.2	1.0	
July	0.6	1.1	1.1	
August	0.5	-0.5	-1.9	
September	0.1	-0.2	-0.3	
October	0.6	0.8	0.7	
November	0.5	-1.5	0.7	
December	0.2	0.2	0.7	

SOURCE: Bureau of Transportation Statistics

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

	March Combined TSI	Percent change from same month previous year
2008	112.0	-1.1
2009	99.6	-11.1
2010	107.1	7.5
2011	111.7	4.3
2012	113.1	1.3
2013	115.9	2.5
2014	119.7	3.3
2015	122.3	2.2
2016	121.0	-1.1
2017	123.9	2.4

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

**Table 10: Freight Transportation Services Index Change by Quarter, 2008-2017
Percent change from the last month of the previous quarter**

Year	1st Quarter (Jan-Mar) % Growth	2nd Quarter (Apr-Jun) % Growth	3rd Quarter (Jul-Sep) % Growth	4th Quarter (Oct-Dec) % Growth
2008	-0.8	0.1	-2.3	-6.5
2009	-4.6	0.3	3.6	1.9
2010	3.9	0.9	0.8	1.4
2011	1.8	-0.5	1.0	3.3
2012	-3.0	1.7	-1.4	0.3
2013	2.9	0.6	0.3	0.9
2014	1.5	0.1	1.4	1.6
2015	-0.5	-0.8	0.4	-1.1
2016	-0.6	2.1	-1.5	3.1
2017	-0.5			

SOURCE: Bureau of Transportation Statistics

Table 11: Passenger Transportation Services Index Change by Quarter, 2008-2017
Percent change from the last month of the previous quarter

Year	1st Quarter (Jan-Mar) % Growth	2nd Quarter (Apr-Jun) % Growth	3rd Quarter (Jul-Sep) % Growth	4th Quarter (Oct-Dec) % Growth
2008	0.4	-0.3	-3.7	-1.5
2009	-1.7	0.0	0.9	0.8
2010	0.3	1.1	1.2	-0.1
2011	0.4	0.6	0.8	0.4
2012	0.3	-0.7	0.4	0.2
2013	0.3	1.3	-0.3	0.3
2014	1.9	-0.3	0.3	0.6
2015	0.5	0.9	0.4	1.1
2016	-1.5	2.9	-0.8	-0.1
2017	-1.1			

SOURCE: Bureau of Transportation Statistics

Table 12: Combined Transportation Services Index Change by Quarter, 2008-2017
Percent change from the last month of the previous quarter

Year	1st Quarter (Jan-Mar) % Growth	2nd Quarter (Apr-Jun) % Growth	3rd Quarter (Jul-Sep) % Growth	4th Quarter (Oct-Dec) % Growth
2008	-0.5	0.0	-2.7	-5.1
2009	-3.7	0.2	2.8	1.6
2010	2.8	1.0	0.8	1.0
2011	1.4	-0.1	0.9	2.5
2012	-2.0	0.9	-0.8	0.2
2013	2.2	0.8	0.1	0.8
2014	1.6	-0.1	1.2	1.2
2015	-0.2	-0.2	0.4	-0.4
2016	-0.8	2.2	-1.2	2.0
2017	-0.6			

SOURCE: Bureau of Transportation Statistics

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).