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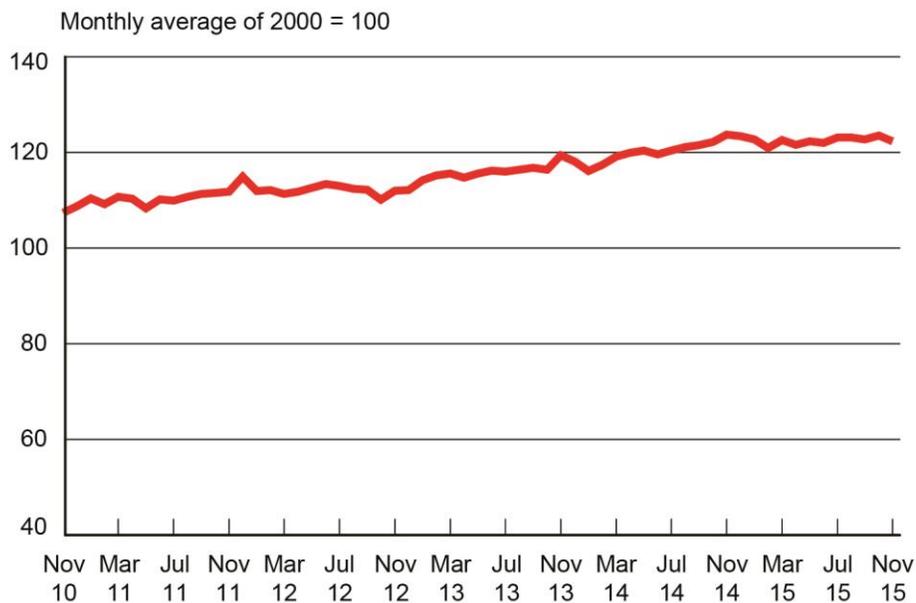
## BTS Data

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### November 2015 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 1.0 percent in November from October, falling after a one-month rise, according to the U.S. Department of Transportation's Bureau of Transportation Statistics' (BTS). The November 2015 index level (122.3) was 29.1 percent above the April 2009 low during the most recent recession (Tables 1, 2, and 2A).

Freight Transportation Services Index, November 2010 - November 2015



The level of freight shipments in November measured by the Freight TSI (122.3) was 1.1 percent below the all-time high level of 123.7 in November 2014 (Table 2A). BTS' TSI records begin in 2000. See historical [TSI data](#).

The October index was revised to 123.5 from 123.2 in last month's release.

The Freight TSI measures the month-to-month changes in 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.

**Analysis:** The Freight TSI decrease was unusually broad in terms of mode – all freight modes decreased. The decrease appears to have been driven by weakness in the mining (including oil and gas well drilling and servicing) and manufacturing sectors of the economy. The Federal Reserve Board Industrial Production index declined in November by 0.6 percent, and the ISM Manufacturing Index was below 50, indicating declining manufacturing activity. Elevated inventory to sales ratios may have also played a role.

**Trend:** Since February 2015, the Freight TSI has not had two consecutive months of either growth or decline. November 2015 was no exception, as the index decreased by 1.0 percent, leaving it 0.3 percent below its September level. The November decrease was the largest since January 2014. After alternating increases and decreases since February, the November TSI was 1.1 percent below the November 2014 high point. The index remains high compared to earlier years however, and has increased by 29.1 percent since its low of 94.7 in April 2009. For additional historical data, go to [TSI data](#).

**Index highs and lows:** Freight shipments in November 2015 (122.3) were 29.1 percent higher than the recent low in April 2009 during the recession (94.7). The November 2015 level was 1.1 percent below the historic peak reached in November 2014 (123.7).

**Year to date:** Freight shipments measured by the index were down 0.9 percent in November compared to the end of 2014 (Table 3).

**Long-term trend:** Freight shipments are up 13.9 percent in the five years from the post-recession level of November 2010 and are up 7.7 percent in the 10 years from November 2005 (Table 5).

**Same month of previous year:** November 2015 freight shipments were down 1.1 percent from November 2014 (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 December 2015 index is scheduled for Feb.10.

**Passenger Index:** The TSI for passengers fell 2.0 percent in November from its October level (Table 6). The Passenger TSI November 2015 level of 133.2 was 11.8 percent above the November 2014 level (Table 7). The index is up 17.0 percent in five years and up 22.1 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 fell 1.3 percent in November from its October level (Table 8). The combined TSI November 2015 level of 125.6 was 2.6 percent above the November 2014 level (Table 9). The combined index is up 14.8 percent in five years and up 11.6 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 May 2015**  
**Percent Change from Previous Month**  
**(Seasonally Adjusted, Monthly Average of 2000 = 100)**

	Freight		Passenger		Combined	
	Index	Pct. Change	Index	Pct. Change	Index	Pct. Change
May	122.3	<b>0.6</b>	121.7	<b>0.2</b>	122.2	<b>0.5</b>
June	122.0	<b>-0.2</b>	122.4	<b>0.6</b>	122.2	<b>0.0</b>
July	123.1	<b>0.9</b>	124.8	<b>2.0</b>	123.7	<b>1.2</b>
August	123.1	<b>0.0</b>	122.6	<b>-1.8</b>	123.0	<b>-0.6</b>
September	122.7	<b>-0.3</b>	123.3	<b>0.6</b>	122.9	<b>-0.1</b>
October	123.5	<b>0.7</b>	135.9	<b>10.2</b>	127.3	<b>3.6</b>
<b>November</b>	122.3	<b>-1.0</b>	133.2	<b>-2.0</b>	125.6	<b>-1.3</b>

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

**Table 2: Freight Transportation Services Index Monthly Changes, 2012-2015**  
**Percent change from previous month**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
	<b>% Change</b>	<b>% Change</b>	<b>% Change</b>	<b>% Change</b>
January	-2.6	1.9	-1.7	-0.6
February	0.2	0.9	1.1	-1.5
March	-0.7	0.3	1.4	1.4
April	0.4	-0.8	0.7	-0.8
May	0.7	0.8	0.4	0.6
June	0.7	0.5	-0.7	-0.2
July	-0.4	-0.2	0.7	0.9
August	-0.5	0.3	0.6	0.0
September	-0.2	0.3	0.3	-0.3
October	-1.9	-0.3	0.6	0.7
November	1.7	2.6	1.2	-1.0
December	0.1	-1.1	-0.2	

SOURCE: Bureau of Transportation Statistics

**Table 2A: Freight Transportation Services Index by Month, 2012-2015**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
January	111.9	114.2	116.1	122.7
February	112.1	115.2	117.4	120.9
March	111.3	115.6	119.1	122.6
April	111.8	114.7	119.9	121.6
May	112.6	115.6	120.4	122.3
June	113.4	116.2	119.6	122.0
July	113.0	116.0	120.4	123.1
August	112.4	116.4	121.1	123.1
September	112.2	116.8	121.5	122.7
October	110.1	116.4	122.2	123.5
November	112.0	119.4	123.7	122.3
December	112.1	118.1	123.4	

SOURCE: Bureau of Transportation Statistics

**Table 3: Freight, Passenger and Combined Transportation Services Indexes Year-to-Date Change, 2006-2015**  
**Percent change to November from December of the previous year**

<b>Year</b>	<b>Freight</b>	<b>Passenger</b>	<b>Combined</b>
2006	-3.5	3.9	-1.4
2007	-0.1	3.3	0.9
2008	-5.9	-4.8	-5.5
2009	1.0	-1.0	0.3
2010	5.9	3.0	5.0
2011	2.9	1.7	2.5
2012	-2.5	-0.2	-1.8
2013	6.5	2.0	5.0
2014	4.7	1.1	3.6
<b>2015</b>	<b>-0.9</b>	<b>10.2</b>	<b>2.4</b>

SOURCE: Bureau of Transportation Statistics

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

	<b>November Freight TSI</b>	<b>Percent change from same month previous year</b>
2006	108.4	-4.6
2007	110.5	1.9
2008	104.3	-5.6
2009	101.2	-3.0
2010	107.4	6.1
2011	111.8	4.1
2012	112.0	0.2
2013	119.4	6.6
2014	123.7	3.6
<b>2015</b>	<b>122.3</b>	<b>-1.1</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 2015 (November to November)**

Since November ...	Duration in years	Freight TSI Percent change to November 2015	Passenger TSI Percent change to November 2015	Combined TSI Percent change to November 2015
2014	1	-1.1	11.8	2.6
2013	2	2.4	12.5	5.5
2012	3	9.2	15.3	11.1
2011	4	9.4	15.7	11.3
2010	5	13.9	17.0	14.8
2009	6	20.8	22.0	21.2
2008	7	17.3	20.3	18.0
2007	8	10.7	13.6	11.4
2006	9	12.8	17.9	14.3
2005	10	7.7	22.1	11.6

SOURCE: Bureau of Transportation Statistics

**Table 6: Passenger Transportation Services Index Monthly Changes, 2012-2015  
Percent change from previous month**

	2012 % Change	2013 % Change	2014 % Change	2015 % Change
January	-0.5	0.6	-0.3	-1.2
February	1.7	0.1	0.1	-0.8
March	-0.9	-0.9	1.8	1.9
April	-0.3	1.0	0.1	0.6
May	-0.6	-0.1	0.6	0.2
June	0.3	0.7	-0.6	0.6
July	-0.3	-0.8	0.3	2.0
August	0.7	0.7	0.3	-1.8
September	0.1	-0.1	-0.2	0.6
October	-1.9	0.3	0.5	10.2
November	1.7	0.4	-1.4	-2.0
December	0.5	-0.5	1.5	

SOURCE: Bureau of Transportation Statistics

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

	<b>November Passenger TSI</b>	<b>Percent change from same month previous year</b>
2006	113.0	3.6
2007	117.3	3.8
2008	110.7	-5.6
2009	109.2	-1.4
2010	113.8	4.2
2011	115.1	1.1
2012	115.5	0.3
2013	118.4	2.5
2014	119.1	0.6
<b>2015</b>	<b>133.2</b>	<b>11.8</b>

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

**Table 8: Combined Transportation Services Index Monthly Changes, 2012-2015  
Percent change from previous month**

	<b>2012 % Change</b>	<b>2013 % Change</b>	<b>2014 % Change</b>	<b>2015 % Change</b>
January	-2.0	1.5	-1.3	-0.7
February	0.6	0.6	0.8	-1.3
March	-0.8	0.0	1.6	1.6
April	0.3	-0.3	0.4	-0.4
May	0.3	0.5	0.5	0.5
June	0.6	0.5	-0.7	0.0
July	-0.4	-0.3	0.6	1.2
August	-0.1	0.5	0.5	-0.6
September	-0.2	0.2	0.2	-0.1
October	-1.9	-0.2	0.6	3.6
November	1.7	1.9	0.4	-1.3
December	0.3	-0.8	0.2	

SOURCE: Bureau of Transportation Statistics

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

	<b>November Combined TSI</b>	<b>Percent change from same month previous year</b>
2006	109.9	-2.3
2007	112.7	2.5
2008	106.4	-5.6
2009	103.6	-2.6
2010	109.4	5.6
2011	112.8	3.1
2012	113.1	0.3
2013	119.1	5.3
2014	122.4	2.8
<b>2015</b>	<b>125.6</b>	<b>2.6</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.