

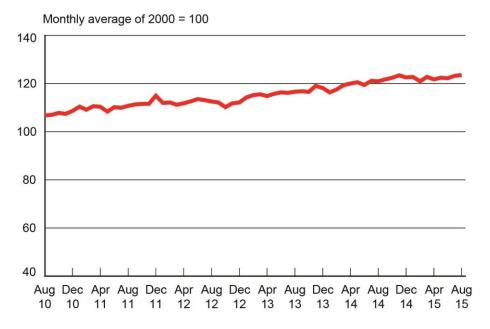
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BTS Data

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August 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, rose 0.2 percent in August from July, rising for the second consecutive month, according to the U.S. Department of Transportation's Bureau of Transportation Statistics' (BTS). The August 2015 index level (123.5) was 30.4 percent above the April 2009 low during the most recent recession (Tables 1, 2, and 2A).



Freight Transportation Services Index, August 2010 - August 2015

The level of freight shipments in August measured by the Freight TSI (123.5) was at an all-time high, exceeding the previous high of 123.4 in November 2014 (Table 2A). BTS' TSI records begin in 2000. See historical <u>TSI data</u>.

The July index was revised to 123.2 from 122.8 in last month's release. Monthly numbers for May and June were revised up.

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.

Trend: The August increase of 0.2 percent in the Freight TSI was the second consecutive monthly increase, breaking a trend that began after the index peaked in November 2014. The index had alternated months of increases and decreases with the monthly indexes ranging from 0.2 percent below the November level to 2.0 percent lower. Following the increase in August, the index was 0.1 percent higher than in November, hitting a new all-time high. After dipping to 94.7 in April 2009, the index rose 30.4 percent in the succeeding 76 months. For additional historical data, go to <u>TSI data</u>.

Analysis: The Freight TSI increase was narrower in terms of modes than it often has been - trucking and rail intermodal showed significant gains, while rail carload, aviation freight, and pipeline decreased, and waterborne was stable. Similarly the increase occurred against a background of mixed indicators for the general economy – employment, personal income, and housing starts all increased, while the Federal Reserve Board Industrial Production index fell.

Index highs and lows: Freight shipments in August 2015 (123.5) were an all-time high and were 30.4 percent higher than the recent low in April 2009 during the recession (94.7).

Year to date: Freight shipments measured by the index were up 0.8 percent in August compared to the end of 2014 (Table 3).

Long-term trend: Freight shipments are up 15.7 percent in the five years from the post-recession level of August 2010 and are up 9.9 percent in the 10 years from August 2005 (Table 5).

Same month of previous year: August 2015 freight shipments were up 2.1 percent from August 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 <u>Seasonally-Adjusted</u> <u>Transportation Data</u> for numbers for individual modes. TSI includes data from 2000 to the present. Release of the September index is scheduled for Nov. 12.

Passenger Index: The TSI for passengers was virtually unchanged in August from its July level (Table 6). The Passenger TSI August 2015 level of 122.6 was 2.0 percent above the August 2014 level (Table 7). The index is up 9.3 percent in five years and up 13.7 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 0.1 percent in August from its July level (Table 8). The combined TSI August 2015 level of 123.3 was 2.1 percent above the August 2014 level (Table 9). The combined index is up 13.7 percent in five years and up 10.8 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 <u>study of this relationship</u> using smoothed and detrended TSI data. Researchers who wish to compare TSI over time with other economic indicators, can use the <u>FRED database</u>, which includes freight, passenger and combined TSI, and which makes it possible to easily graph TSI alongside the other series in that database. See <u>TSI data on FRED</u>.

For a webinar on the TSI, see <u>Past Webinars</u>. For a video explanation of the TSI, see <u>Overview of the Transportation Services Index</u>. A BTS report explaining the TSI, <u>Transportation</u> <u>Services Index and the Economy</u>, is available for download.

Percent Change from Previous Month (Seasonally Adjusted, Monthly Average of 2000 = 100)							
	Freight Passenger Combined						
	Index	Pct. Change	Index	Pct. Change	Index	Pct. Change	
February	120.9	-1.5	118.5	-0.9	120.2	-1.3	
March	122.7	1.5	120.7	1.9	122.2	1.6	
April	121.7	-0.8	121.4	0.5	121.7	-0.4	
May	122.4	0.5	121.6	0.2	122.2	0.4	
June	122.2	-0.1	122.2	0.5	122.3	0.1	
July	123.2	0.8	122.6	0.3	123.1	0.7	
August	123.5	0.2	122.6	0.0	123.3	0.1	

Table 1: Freight, Passenger and Combined Transportation Services Indexes since February 2015

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

	2012 % Change	2013 % Change	2014 % Change	2015 % Change
<u> </u>	Ū		0	0
January	-2.6	1.9	-1.5	0.2
February	0.1	0.9	1.1	-1.5
March	-0.8	0.3	1.6	1.5
April	0.5	-0.6	0.5	-0.8
May	0.7	0.8	0.4	0.5
June	0.8	0.5	-0.9	-0.1
July	-0.4	-0.1	1.4	0.8
August	-0.6	0.4	-0.1	0.2
September	-0.3	0.2	0.7	
October	-1.7	-0.2	0.5	
November	1.5	2.1	0.8	
December	0.2	-0.8	-0.7	

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

SOURCE: Bureau of Transportation Statistics

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

	2012	2013	2014	2015
January	111.9	114.2	116.3	122.7
February	112.1	115.2	117.5	120.9
March	111.2	115.5	119.3	122.7
April	111.8	114.8	120.0	121.7
May	112.6	115.7	120.5	122.4
June	113.5	116.3	119.4	122.2
July	113.1	116.1	121.1	123.2
August	112.5	116.6	120.9	123.5
September	112.1	116.8	121.7	
October	110.2	116.5	122.4	
November	111.8	119.0	123.4	
December	112.1	118.1	122.5	

SOURCE: Bureau of Transportation Statistics

 Table 3: Freight, Passenger and Combined Transportation Services Indexes Year-to-Date

 Change, 2006-2015

Year	Freight	Passenger	Combined
2006	-2.5	0.4	-1.7
2007	-1.2	3.4	0.2
2008	-1.5	-0.5	-1.2
2009	-1.0	-0.5	-0.9
2010	5.2	1.5	4.1
2011	1.9	-1.2	1.0
2012	-2.1	-0.1	-1.5
2013	4.0	1.2	3.2
2014	2.4	1.8	2.2
2015	0.8	1.2	0.9

Percent change to August from December of the previous year

SOURCE: Bureau of Transportation Statistics

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

	August Freight TSI	Percent change from same month previous year
2006	109.5	-2.6
2007	109.3	-0.1
2008	109.0	-0.2
2009	99.2	-9.0
2010	106.7	7.6
2011	110.7	3.8
2012	112.5	1.6
2013	116.6	3.6
2014	120.9	3.7
2015	123.5	2.1

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

Since August	Duration in years	Freight TSI Percent change to August 2015	Passenger TSI Percent change to August 2015	Combined TSI Percent change to August 2015
2014	1	2.1	2.0	2.1
2013	2	6.0	4.3	5.5
2012	3	9.8	6.0	8.6
2011	4	11.5	9.5	10.9
2010	5	15.7	9.3	13.7
2009	6	24.5	11.7	20.5
2008	7	13.3	5.9	10.9
2007	8	13.0	4.3	10.2
2006	9	12.8	12.2	12.5
2005	10	9.9	13.7	10.8

Table 5: Transportation Services Indexes from Previous YearsPercent Change to 2015 (August to August)

SOURCE: Bureau of Transportation Statistics

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

	2012	2013	2014	2015
	% Change	% Change	% Change	% Change
January	-0.6	0.7	-0.4	-1.3
February	1.8	0.0	0.0	-0.9
March	-1.0	-0.9	1.8	1.9
April	-0.3	0.9	0.0	0.5
May	-0.6	-0.1	0.6	0.2
June	0.2	0.6	-0.6	0.5
July	-0.3	-0.8	0.2	0.3
August	0.8	0.7	0.2	0.0
September	0.0	-0.2	-0.2	
October	-1.9	0.4	0.7	
November	1.9	0.7	-1.1	
December	0.4	-0.6	1.4	

SOURCE: Bureau of Transportation Statistics

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

	August Passenger TSI	Percent change from same month previous year		
2006	109.2	1.4		
2007	117.6	7.6		
2008	115.7	-1.5		
2009	109.7	-5.2		
2010	112.1	2.2		
2011	111.9	-0.2		
2012	115.7	3.4		
2013	117.5	1.6		
2014	120.1	2.2		
2015	122.6	2.0		

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

	2012	2013	2014	2015
	% Change	% Change	% Change	% Change
January	-2.0	1.5	-1.2	-0.3
February	0.6	0.6	0.7	-1.3
March	-0.9	-0.1	1.6	1.6
April	0.3	-0.1	0.4	-0.4
May	0.3	0.5	0.5	0.4
June	0.7	0.6	-0.8	0.1
July	-0.4	-0.3	1.1	0.7
August	-0.2	0.5	0.0	0.1
September	-0.2	0.1	0.4	
October	-1.8	0.0	0.6	
November	1.6	1.7	0.3	
December	0.3	-0.7	-0.1	

SOURCE: Bureau of Transportation Statistics

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

	August Combined TSI	Percent change from same month previous year
2006	109.6	-1.5
2007	111.9	2.1
2008	111.2	-0.6
2009	102.3	-8.0
2010	108.4	5.9
2011	111.2	2.6
2012	113.5	2.1
2013	116.9	3.0
2014	120.8	3.3
2015	123.3	2.1

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.