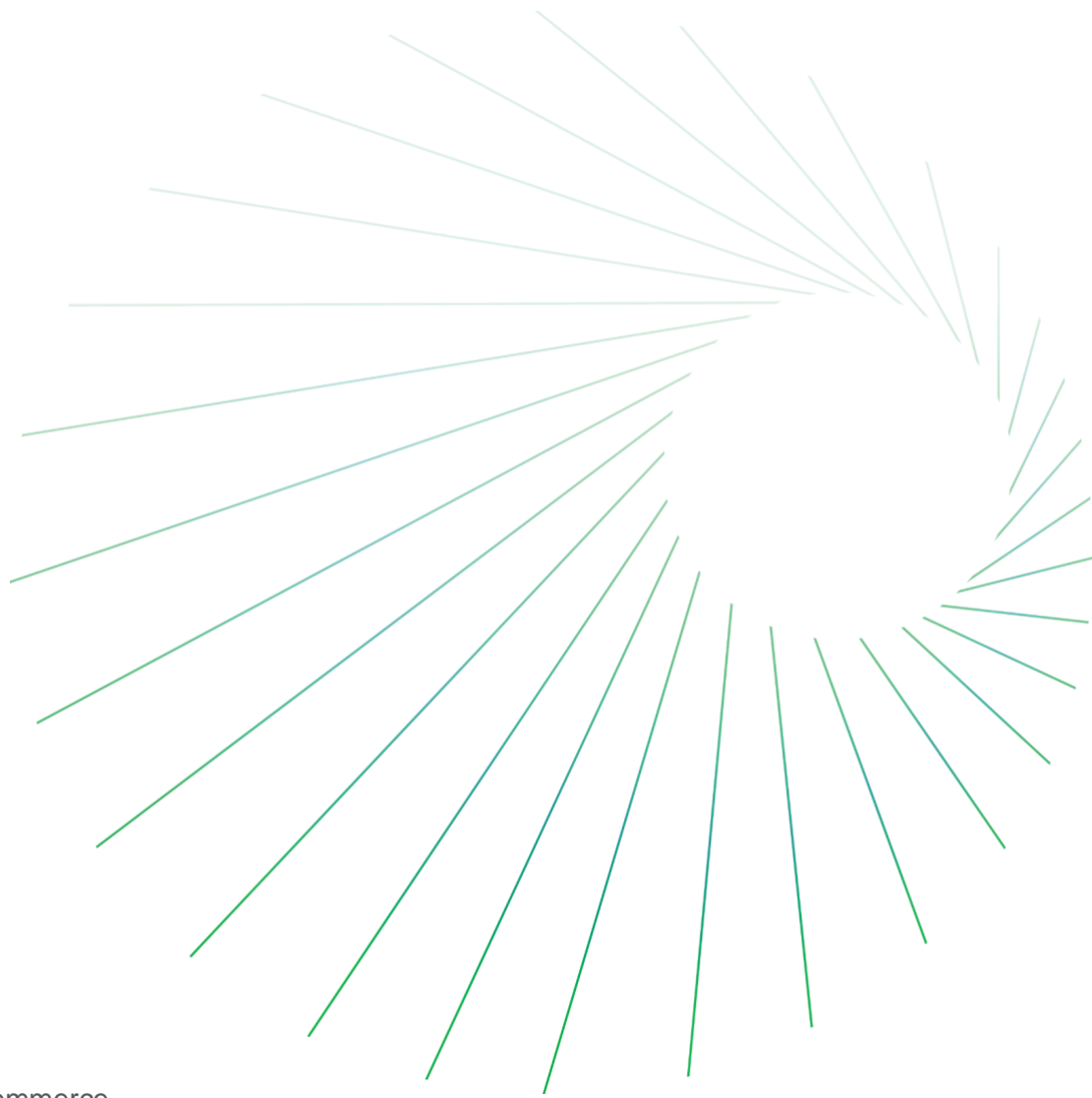


Intermodal Savings Index

3rd Qtr. 2019

An Analysis of the Domestic Intermodal and Truckload Markets
November 2019



Ari Ashe
Associate Editor, Journal of Commerce

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US Intermodal Savings Index

An Analysis of the Domestic Intermodal and Truckload Markets

Ari Ashe, Associate Editor, Journal of Commerce

The Journal of Commerce (JOC) provides a quarterly analysis of the transportation market to inform conversations about modal decisions.

How to Read Our Index

The *Domestic Spot Intermodal Savings Index* (“**Spot ISI**”) and *Contract Intermodal Savings Index* (“**Contract ISI**”) uses a base of 100.

Values above 100 signify intermodal is cheaper. Values below 100 signify truckload is cheaper. ISI values are calculated based on percentages:

- 105 = Intermodal: 5 percent cheaper
- 110 = Intermodal: 10 percent cheaper
- 95 = Truckload: 5 percent cheaper
- 90 = Truckload: 10 percent cheaper

For an in-depth review of the Spot and Contract ISI, please read the *Methodology* section on page 7.

Executive Summary

Since our last report, the Spot and Contract ISI have trended in different directions.

The Spot ISI plunged below 100 a year ago but has improved since May. The rolling three-month average of 113 is the highest value since February 2018. Much of this has to do with the spot truckload market not intermodal (see page 4 for more information).

The Contract ISI, though, has fallen each month of this year. There are two reasons for the decline. First, Class I railroads pushed rate increases amid a weakening truck market, a stance that has caused rail-to-truck conversions. Second, our Contract ISI comparison is truckload contract rates which are dropping because of weak spot pricing prior to June.

The Contract ISI rolling three-month average of 116.3 is the lowest since the January 2015 launch date.

Shippers should expect intermodal contract prices to save less than historical norms in early 2020.

Table of ISI values

3 Month, 6 Month, 12 Month Average.

3 Month Spot ISI	6 Month Spot ISI	12 Month Spot ISI
113.3	110.2	106.3
3 Month Contract ISI	12 Month Contract ISI	12 Month Contract ISI
116.3	117.5	121.8

Source: IHS Markit

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There are several key issues we will discuss more in detail in this report.

- Why IMCs lost business in January.
- Which lanes provide strong contract and spot intermodal savings, and which are lanes are better for trucking
- Spot intermodal savings on lengths of haul between 800 and 2,000 miles.

In the following pages, we will take a more detailed look at historical data, lengths of haul, and which lanes are hot and cold.

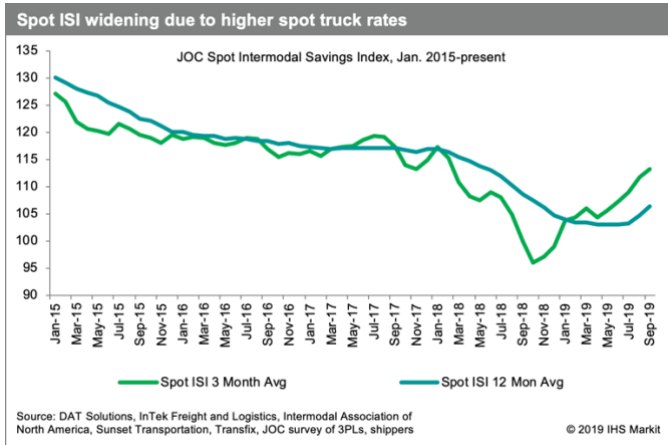
“We like to say that price gets you through the door, service keeps you there. You won’t get past the door if you can’t win on price,” InTek Freight and Logistics CEO Rick LaGore says. (*continue to next page*)

Historical Perspective

Spot ISI

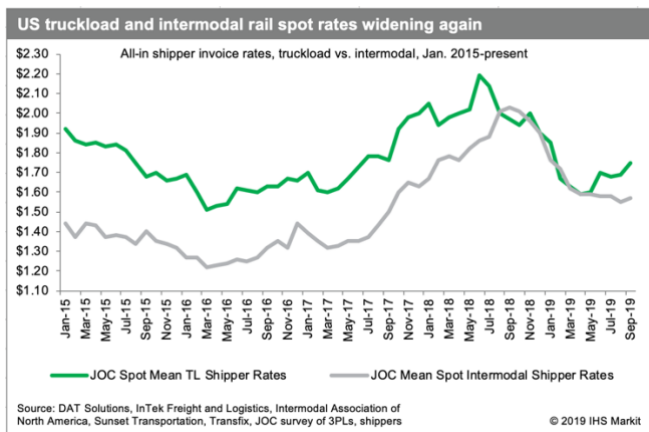
The ISI average was 120.1 in 2015. It steadily declined to 118.9 in 2016, 116.9 in 2017, and 104.6 in 2018.

Conditions have rebounded this year. The rolling nine-month average is 108.8.



The Spot ISI rebound is due to the truckload spot market. In May 2019, the unweighted shipper all-in rate averaged \$1.59 per mile for both truckload and intermodal. Since then, truckload rates rose to \$1.75 while intermodal dropped to \$1.57.

This analysis based on 115 modal competitive lanes.

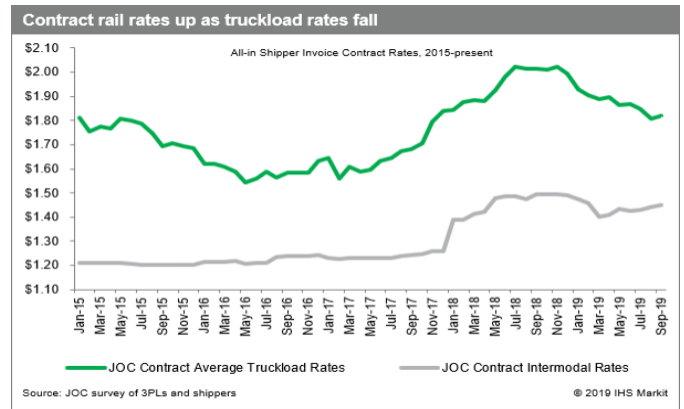


Contract ISI

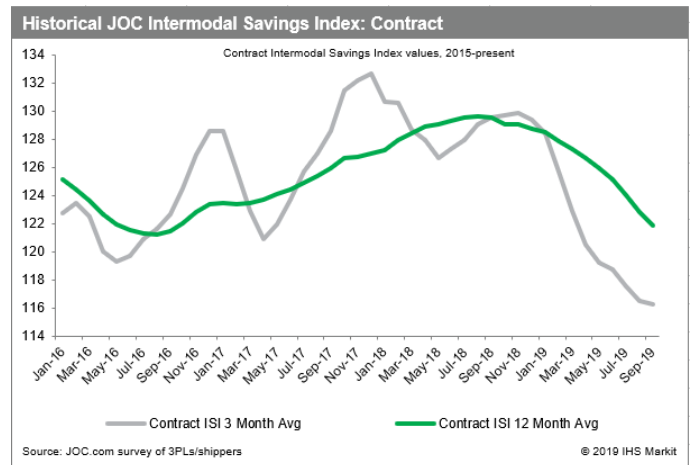
While the spot index is improving, the contract index is deteriorating.

The Contract ISI is a cyclical index value dependent on the truckload contract market. Since intermodal

contract rates almost always rise, truckload contract rates influence the direction of the ISI. The Contract ISI will rise if contract truckload rates rise, and fall when truckload falls.



The current rolling 12-month average of 121.8 is down 9.2 percent compared with a year ago.



Some IMCs believe Class I railroads miscalculated the trucking market when setting contract rates in January 2019.

By pushing high single-digit increases, IMCs lost business to truckload. Contract prices on the busiest intermodal lane, Los Angeles to Chicago, were practically even between the modes in January when shippers made annual freight commitments.

Intermodal is now \$300-\$400 cheaper before any storage charges or other accessorial fees. *(continue to next page)*

The Distance Discussion

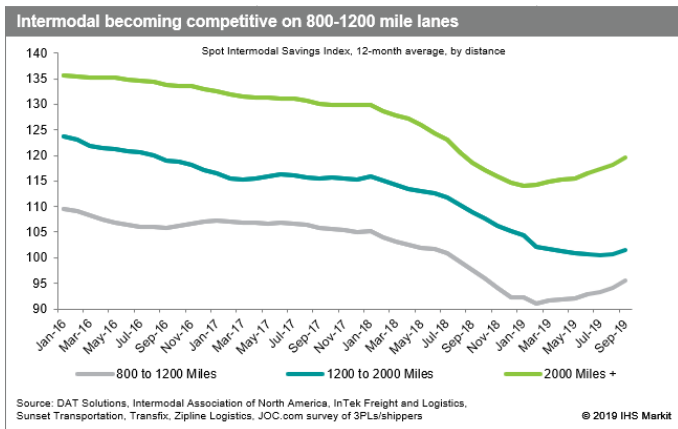
Length of haul is an important factor in any modal discussion. Intermodal becomes more attractive with distance. Class I railroads pass on operating costs to the shipper. They have a smaller impact on a \$4,500 invoice between Los Angeles to Miami (2,740 miles) compared with \$950 between Miami and Chicago (1,350 miles).

Less than 700 Miles

We have only recently begun tracking lanes less than 800 miles, such as Atlanta to Orlando, and Baltimore to Chicago. We don't have a full year of data, but the rolling nine-month Spot ISI is 84.7 on these lanes. At best, intermodal breaks even on rates before storage charges and other accessorial fees.

800 to 1,200 Miles

In the chart below, you will see the value of the gray line (800 to 1,200 miles) was 109.6 in January 2016. It dropped to 91 this February and is currently 95.6. This chart represents a rolling 12-month average.



Many of these lanes are in the eastern network where IMCs are struggling to retain volume in 2019.

Major lanes in this segment have contributed to the slow decline, including Atlanta to Jacksonville, Orlando and Miami, and Seattle to Los Angeles.

Charlotte to Chicago is 770 miles, just below the threshold. The Spot ISI for this lane averaged 102.9 between January 2016 and August 2018 but has since fallen to 91. Charleston to Chicago (913 miles) is a

lane in which spot intermodal rates are 20 percent higher than truck.

1,200 to 2,000 Miles

The Spot ISI on 1,200 to 2,000-mile hauls (teal line) was 123.7 in January 2016. Today it's 101.6. While it's trending up since June, it's below historical norms.

Laredo to Chicago, nearly 1,400 miles, is an example of why. The January 2016 to August 2018 average was 116.7. The value dipped to the upper 70s in late 2018 and early 2019. It was 95.6 in September.

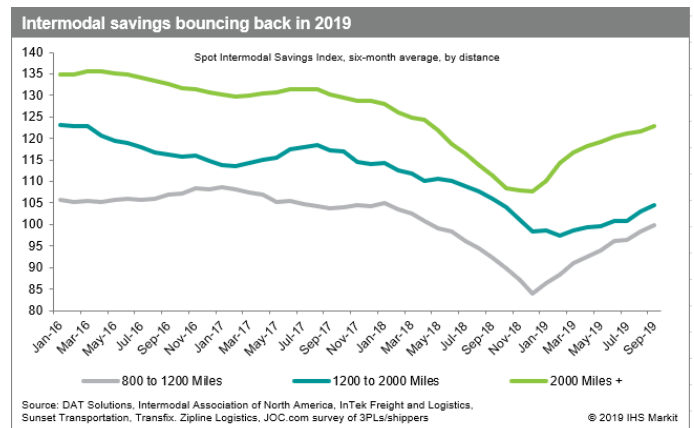
The Contract ISI is 98 between Laredo and Chicago, which is truck plus six days.

Los Angeles to Houston, about 1,550 miles, was consistently higher than 100 between 2015 and 2017. Between February 2018 and May 2019, it dropped below 100. It has returned to about 111 since then, but the 12-month average remains below 100.

The Contract ISI is 110 between Los Angeles and Houston (\$250-\$300 savings), which is truck plus three days.

The Recent Rebound

One positive is that the rolling six-month Spot ISI is trending upward. The 800-1,200 mile segment is 99.7, 1,200-2,000 miles is 104.4, and 2,000+ miles is 122.9.



If the truckload spot market builds on the traction it has gained since May, then these numbers should continue to climb. (continue to next page)

The Market Breakdown

In this section, we identify which lanes are pro-intermodal, pro-trucking, and up for grabs. We encourage shippers to use this as a beginning — *not an end* — to a discussion with IMCs. Don't make decisions based solely on this report.

Green means go — strong spot intermodal savings.
Yellow is slow down — truck rates are competitive.
Red means stop — no spot intermodal savings.

Each is based on a rolling 12-month average.



GREEN

Index value is greater than 110

These are pro-intermodal lanes in which shippers are receiving a good value.

- Allentown to Dallas
- Allentown to Houston
- Atlanta to Chicago
- Atlanta to Los Angeles
- Atlanta to Oakland
- Atlanta to Seattle
- Boston to Chicago
- Boston to Los Angeles
- Charlotte to Los Angeles
- Charlotte to Stockton
- Chicago to Atlanta
- Chicago to El Paso
- Chicago to Elizabeth, NJ
- Chicago to Los Angeles
- Chicago to Phoenix
- Chicago to Seattle
- Dallas to Boston
- Dallas to Los Angeles
- Dallas to Seattle
- Elizabeth to Chicago
- Elizabeth to Dallas
- Elizabeth to Los Angeles
- Elizabeth to Seattle
- Houston to Los Angeles
- Houston to Oakland
- Jacksonville to Los Angeles
- Kansas City to Los Angeles
- Los Angeles to Atlanta
- Los Angeles to Elizabeth, NJ
- Memphis to Los Angeles
- Miami to Chicago
- Oakland to Atlanta
- Orlando to Chicago
- Philadelphia to Dallas
- Seattle to Atlanta
- Seattle to Chicago
- Springfield, MA to Chicago
- St. Louis to Los Angeles



RED

Index value is less than 100

These are pro-trucking lanes.

- Atlanta to Jacksonville
- Atlanta to Orlando
- Atlanta to Philadelphia
- Baltimore to Chicago
- Chambersburg to Chicago
- Chicago to Chambersburg
- Chicago to Dallas
- Chicago to El Paso
- Chicago to Houston
- Cincinnati to Los Angeles
- Cincinnati to Stockton
- Cleveland to El Paso
- Dallas to Atlanta
- Dallas to Chicago
- Dallas to Reno, NV
- Denver to Oakland
- Elizabeth to Atlanta
- Elizabeth to Denver
- Elizabeth to Dallas
- Hartford to Dallas
- Houston to Allentown
- Houston to Chicago
- Houston to Elizabeth, NJ
- Jacksonville to Dallas
- Laredo to Chicago
- Laredo to Oakland
- Los Angeles to Dallas
- Los Angeles to Denver
- Los Angeles to Seattle
- Miami to Elizabeth, NJ
- Oakland to Dallas
- Orlando to Boston
- Orlando to Elizabeth, NJ
- Phoenix to Chicago
- Reno to Dallas
- Salt Lake City to Chicago
- Salt Lake City to Los Angeles
- Seattle to Los Angeles
- Springfield, MA to Orlando
- Stockton to Houston
- Syracuse to Orlando

Source: IHS Markit

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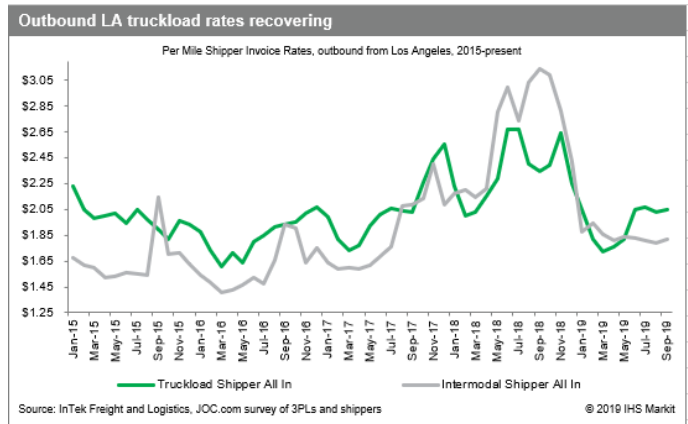
Out of 125 lanes, 61 are **Green** (48.8 percent), 25 are **Yellow** (20 percent), and 39 are **Red** (31.2 percent).

What's Hot

There were several options to choose from. Inbound Chicago intermodal savings, which were virtually non-existent in January have widened again. The six-month rolling Spot ISI is 113.4. Inbound Atlanta rates, which were cheaper via truck in January, are competitive again with the Spot ISI between 108 and 110.

Intermodal experts generally advise a 12 to 15 percent savings (112 to 115) as a spot market benchmark, so there is still room for improvement.

The top hot lane is Los Angeles outbound. A surge in spot intermodal pricing last fall has returned to normal. While the Los Angeles index value was below 100 through this May, truckload rates have since climbed 23 cents per mile in our indexed lanes while intermodal rates have fallen two cents. The Los Angeles Spot ISI is now 112.2.



Another candidate is outbound Elizabeth, New Jersey, including *Linden and Kearny*. Since May, truck rates for this lane lanes have risen 23 cents while intermodal spot rates have dropped two cents. The Elizabeth, New Jersey Spot ISI is 115.3.

What's Not

Inbound Dallas lanes are truck competitive. The Spot ISI has been below 100 since February 2018.

Two lanes, Chicago to Dallas and Los Angeles to Dallas, will tell us a lot going forward. (*continue to next page*)

From Chicago to Dallas, the Contract ISI has been between 90 and 105 since February. Contract intermodal rates are about \$2,000 while contract truckload is \$2,100 while also a day faster. Shippers will be better off securing a lower intermodal rate.

Both the Contract and Spot ISI from Los Angeles to Dallas have stabilized to 115 in the last three months.

Contract prices are \$2,400-\$2,500 via intermodal and \$2,900-\$3,000 via truck. The delta on spot rates are closer to \$200. The rail option is truck plus three days.

Shippers must be careful because J.B. Hunt placed a \$1,200 surcharge on excess freight out of Los Angeles. One source has also told JOC that J.B. Hunt is tightening peak allotments, which is typically about a 5 to 10 percent above normal weekly shipments.

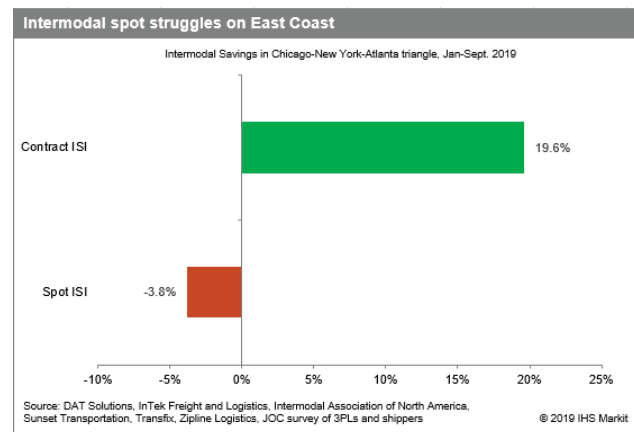
Union Pacific Railroad also placed a \$250 surcharge on aggregate rates used by smaller shippers.

If you go above your allotment, truck is a better option.

Eastern US Network

Much of the US domestic eastern intermodal network volume travels within a triangle of Chicago, New York, and Atlanta. This area encompasses Pennsylvania, Ohio, Indiana, and Kentucky, all major distribution hubs.

Our index tracks 12 lanes in the triangle, which are more susceptible to truck competition than transcontinental routes. Nearly 125,000 domestic loads travel within the triangle monthly, according to IANA.



Intermodal rates are advantageous into Chicago, saving between 10 and 20 percent both on spot and contract hauls. Trucks are competitive between Chicago and Charlotte, and Chicago to Chambersburg, Pennsylvania.

Contract intermodal rates have become a better deal in the last three months exiting the Southeast, although this is due to the tightening truckload market more than intermodal demand. Shippers will struggle, however, to find competitive spot intermodal rates in the Southeast.

Methodology

The JOC monitors more than 115 lanes each month using a variety of rating sources and tools. For the purposes of the Spot and Contract ISI, we provide estimates to a group of third-party logistics providers and shippers under non-disclosure agreements. A few sources have agreed to be named, but most participate on the condition of anonymity.

To calculate the Index, JOC sends estimates of all-in shipper rates (per-mile) for 45 lanes to our sources. Our estimates include fuel surcharges and brokerage margins. They exclude accessorial charges such as detention or demurrage. Our data contributors review actual invoices to provide rates for the previous month.

We compare contract intermodal rates to contract truckload rates and spot intermodal rates to spot truckload rates.

Values greater than 100 signify intermodal is cheaper. Values less than 100 signify truckload is cheaper.

If intermodal rates are 20 percent cheaper, for example, the ISI is 20 percent higher than 100 (or 120). If truckload rates are 20 percent cheaper, the ISI is 20 percent lower than 100 (or 80).

JOC calculates a regional Index value for the Midwest, Mountain, Northeast, Northwest, Southeast, South Central, and Southwest US.

A weighted national number is then calculated by using 53-foot equipment flow data from IANA. The weighting differs monthly due to small shifts in share by region. The sum of the weighted values becomes the national ISI. (continue to next page)

Acknowledgements

We cannot disclose the identities of a majority of contributors to the Index, but we would like to thank them for participating. Your input is critical to help shippers to make informed decisions.

Transfix, Sunset Transportation and Zipline Logistics are companies we can publicly disclose. We appreciate their information and support.

We would like to thank Rick LaGore of InTek Freight and Logistics for providing weekly intermodal spot data on more than 115 lanes. We make minor adjustments based on real-time spot rates of asset-owning IMCs such as J.B. Hunt, Hub Group, and Schneider National.

We also thank IANA for tracking the equipment flows of all intermodal containers and trailers. Without IANA's partnership, our national ISI and market-by-market analysis would be impossible.

InTek and IANA provide a valuable service to the transportation industry.

DAT Solutions also played a key role before our official launch to help fill some of the gaps in our historical data in the Pacific Northwest.

We thank our parent company IHS Markit for their continued support of JOC.

Finally, we would like to thank the readers and JOC subscribers. If you have any questions about specific lanes in your network, please contact ari.ashe@ihsmarkit.com with your request.

What They Said!

“We are not trying to chase market share. We are not trying to chase the market down against loose truck. We will just compete based on the service that we provide, and we will price for that. As the economy strengthens, which it will at some point, and as truck capacity tightens up, which it will at some point, we are in a great place to take advantage.”-Lance Fritz, CEO of Union Pacific Railroad, Oct. 17.

“Intermodal has lost some share, and it's not just in the 750 to 1000-mile type of linehauls, it's even up in the 2,000. Dallas-LA has become a very competitive market. A lot of it is the truck competition, I think they're doing anything just to keep their tractors and drivers moving.” -Dave Yeager, CEO of Hub Group, Oct. 30.

“Take a look at the cyclical nature of the trucking industry. We saw weakness in the spot truck market in 2011 and 2015 and 2019. And through all of that, we continue to deliver year-over-year rate increases in intermodal every single quarter...the spot market will recover, and we're going to be positioned for growth because of the very strong service product that we're delivering.”-Alan Shaw, chief marketing officer, Norfolk Southern Railway, Oct. 23.

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