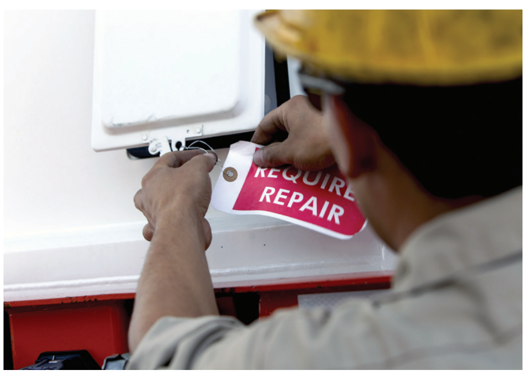
WHITE PAPER

# Industry Challenges

## Fiscal pressures are being felt across all service offerings in the transportation industry, including Intermodal, Over the Road, Brokerage, and Dedicated.

Increased recruiting expenses and mileage pay, truck and maintenance costs, preparation for future regulations on equipment, lost productivity due to new regulations and a precarious market capacity situation are all stressing forces. The key factors highlighted below are:

- Driver shortage and retention
- Tightening regulations/Hours of Service
- Capacity
- Railroad investment
- Equipment costs
- Productivity




## Driver Shortage and Retention

Industry insiders and analysts alike have forewarned of a looming driver shortage since the last recession. According to the American Trucking Association (ATA), roughly 96,000 new drivers are required annually to keep pace with demand. If freight demand grows as expected, the annual driver shortage could balloon to nearly 240,000 by 2022.[1] There are many contributing factors, including an aging workforce, new and tightening regulations, and a need for increased capacity during our current economic upturn.

The accumulation of increasing difficulties is substantial enough to "begin moving the driver markets in the contract segment. Budgets for recruiting have risen, and driver pay is increasing."[2] Carriers have also reported increased recruiting expense, sign-on bonuses, and mileage pay[3] as they struggle to keep drivers in trucks.

**Driver Shortage Worsening[1]**


**Source: ATA.com**

## Tightening Regulations/Hours of Service

Tightening regulations continue to contribute to fiscal pressure. Carriers continue to adjust to 3%-5% effective capacity reductions created by the latest changes to Hours-of-Service (HOS) regulations, which have been in effect since July 2013.[2] Downward pressure on capacity combined with freight volume growth could create an even tighter market for some trucking services[4], though the full impact of revised HOS rules isn't predicted to be absorbed until the use of Electronic Logging Devices (ELDs) becomes mandated. ELD regulations are predicted to go into effect by late 2015 or early 2016.[4]

Furthermore, several other proposed regulatory changes could further constrain trucking capacity over the next several years.[4] The Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA), for example, have released new standards that aim to reduce greenhouse gas emissions and fuel consumption for Class 8 trucks by approximately 29%. These changes are scheduled to be phased in between the 2014 and 2018 model years.[4]

According to BMO Capital Markets, "...The cost of the new trucks is expected to increase and maintenance costs may experience upward pressure due to the increased complexity of the engines (similar to the experience with the EPA-compliant engines introduced in 2010)."[4]

## Productivity

Driver and asset productivity have fallen with the tightening influence of regulations, particularly Hours of Service. Carriers must regard both their equipment and their drivers' time as perishable commodities. In the days before HOS rules, scheduling inefficiencies could be compensated for by splitting driving time during the day. Through several successive revisions, HOS now mandates a continuously running duty clock. Once started, the duty clock expires exactly 14 hours later, with 11 hours of permissible driving time before a 10-hour break. Time spent at loading docks, fueling, and personal breaks invariably deducts from the 11-hour driving day. The latest round of changes in 2013 introduces limitations on the "34-hour restart," reducing the maximum hours a driver can work in a week by up to 12 hours, or 15%. According to the American Transportation Research Institute (ATRI), more than 80% of surveyed motor carriers have experienced a loss in productivity in relation to the changing HOS, and nearly half of these have stated more drivers are necessary to haul the same amount of freight.[5]

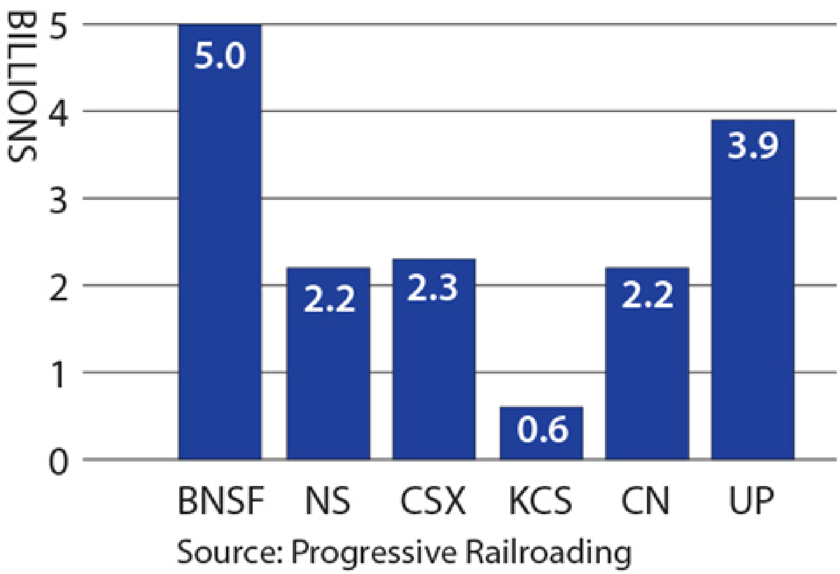
Like any high-investment, low-margin machine, tractors and trailers must be kept in continual productive motion in order to provide proper return. Carriers have segmented their freight and lanes into two broad groups of efficiency. One group, whose characteristics facilitate maximum utility of the 11-hour day and generates productive payload miles, earns the most favorable pricing and anchors sustainable freight networks. The other, with disproportionate consumption of time in unpaid empty miles and in non-driving time awaiting pickup or delivery appointments outside of reasonable transit time, must be priced accordingly.

## Rail Investment

Service recovery has remained stalled as railroads continue to cope with substantially higher volumes in both intermodal (+7.9% YOY) and carload (+5.6% YOY). Grain movements saw a whopping 21.5% increase, but nearly all sectors are seeing growth as the economy recovers.[6] All of these commodities use the same tracks, locomotives, crews, and other resources to move freight through their networks. Intermodal shippers should certainly pay attention to capacity consuming activities such as crude-by-rail and re-regulation.

For the most part, the service issue is not due to lack of fixed capacity, such as track and terminals, since railroads continued to invest heavily in their networks during the recession years[7] and their investment activity continues at record levels. Rather, the railroads need more locomotives and crews. Unfortunately, recruiting, hiring, and training a crew member takes time. Furthermore, locomotives are going to become harder to come by. According to *The Wall Street Journal*, with the new Tier 4 air quality regulations coming into effect on January 1st, 2015, locomotive manufacturer EMD "doesn't anticipate having production units ready until 2017."[8] This means only one U.S. locomotive manufacturer (GE) after December 31st.

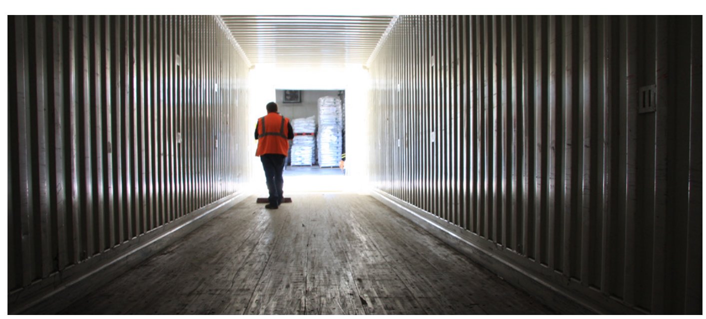
## Class I Railroads Planned Spend[9]




Trailer-on-flatcar (TOFC) remains the strongest intermodal segment at +11.7% year over year, potentially reflecting a shift by shippers and motor carriers away from the highway due to container supply constraints and capacity restrictions in trucking.[10] In fact, in an analysis of the first 34 weeks of 2014, U.S. railroads reported cumulative volume of 8,730,830 intermodal units, up 5.7 percent from last year.[11]

The relatively tight nature of the truckload market and the consequent strength in truck rates could provide upward momentum on intermodal pricing through the 2015 bid season.[10]

Insight from initial reports suggests capital expenditures could likely increase for Class I railroads an average of 9 percent overall in 2014. According to Progressive Railroading, "Railroads once again will top 18 percent of annual revenues on capex, compared with 3 percent for the 'average industrial' company." Further increases could also be announced during the year, as they were in 2013.[9]

## Capacity

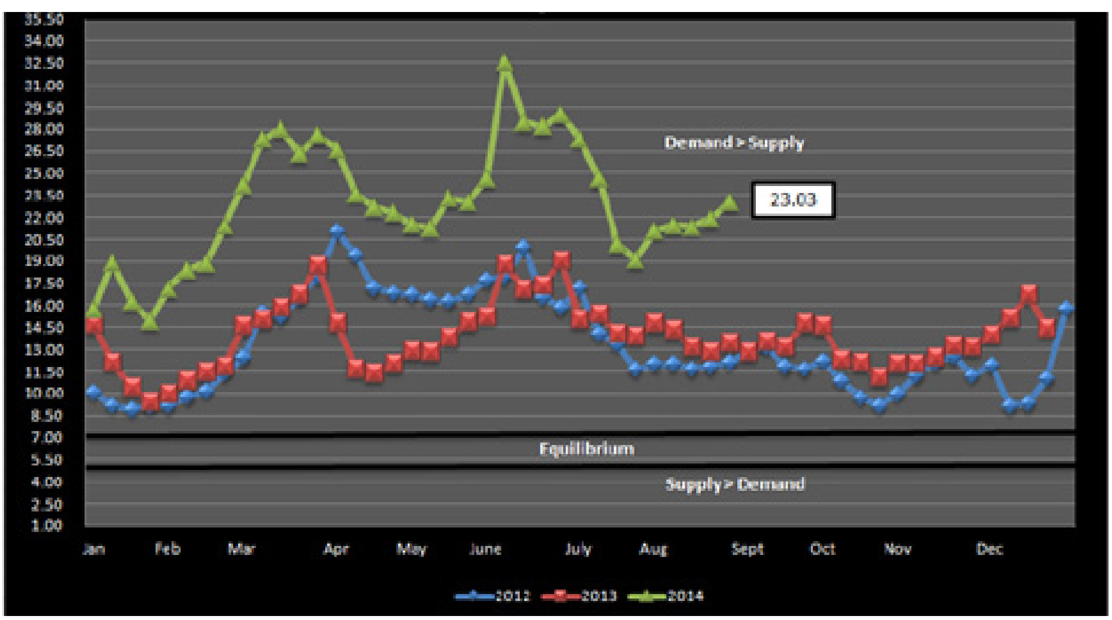
The market will stay near tipping point because of the strength of demand. At best, seasonal peaks and any event which swells demand or degrades capacity will cause a series of short capacity crises. Another wave of regulations will likely hit in 2016, potentially creating capacity concerns, thus making cooperative carrier relationships highly necessary.[3]

Furthermore, recent field reports suggest increasing labor and purchased transport costs. Contract rates are also beginning to move upwards.[3] As seen in the FTR Transportation Intelligence Forecast, total shipping costs are projected to rise in 2014 and in 2015.[3]

In truckload, contract segment costs have begun to rise as labor stress in spot markets leaks into the contract space. Reports for the second quarter show mixed results in cost control concerning Less-Than-Truckload, though most fleets are increasing hiring expenses. Rail is operating at high capacity and total rail costs are projected to rise in 2015.[3]

Truckload cannot meet current demand as changing regulations, the driver shortage, and underinvestment make capacity expansion unlikely.[12] Projections for the full year show a slight softening and there may be greater capacity available for truckload in the second half of the year.[13] However, current capacity trends are holding at 98%, just below the point of serious shortages.[3] FTR Transportation Intelligence predicts the fragile balance to "continue until regulatory pressures increase again in later 2016."[3]

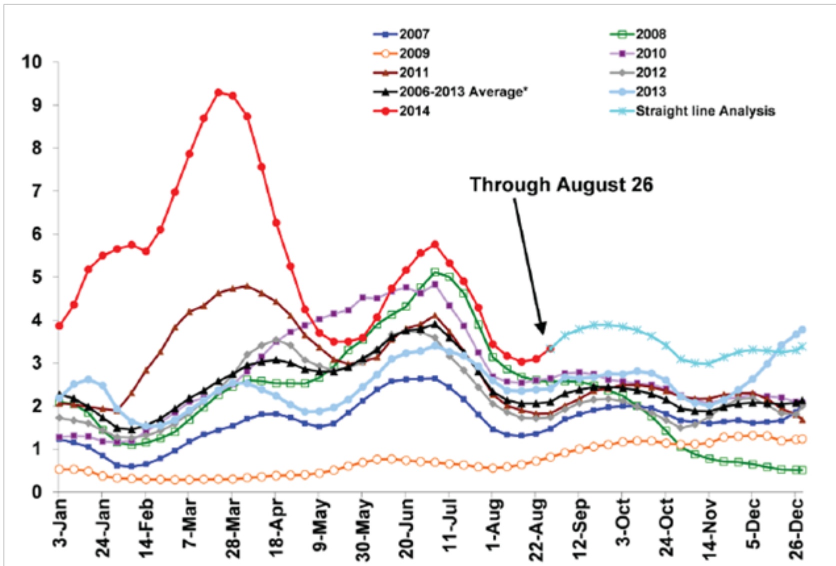
**Weekly MDI Data[14]**



## Weekly MDI Data[15]

| INDUSTRY TRENDS | MONTH<br>June 2014 vs. May 2014 | YEAR<br>June 2014 vs. June 2013 |
|---|---|---|
| Spot Market Loads | +11% | +54% |
| Spot Market Capacity | -20% | -2.8% |
| Van Load-To-Truck | +51% | +43% |
| Van Rates (Spot) | +5.1% | +12% |
| Flatbed Load-To-Truck | +30% | +134% |
| Flatbed Rates (Spot) | +3.4% | +11% |
| Reefer Load-To-Truck | +42% | +34% |
| Reefer Rates (Spot) | +4.7% | +8.0% |
| Fuel Prices | -0.9% | +1.6% |

## Dry Van Truckload Freight Index[16]




The index measures the incremental demand for Dry-Van Truckload services compared to the incremental supply. When a given reading is above prior years' level, it means there is more freight demand relative to available capacity. When a given reading is below prior years' level, it means there is less freight demand relative to capacity. *2006-2013 average trend line excludes financial crisis years of 2008 and 2009; Source: Morgan Stanley Research, Data as of 8/26/2014

## Rising Equipment Costs

Increased demand means carriers must maintain and grow reliable and efficient fleets. Largely due to increasingly stringent emission standards, the cost of new Class 8 tractors continues to rise.[4] EPA mandates, inflation, and manufacturer cost increases contribute to base price increases. ACT Research estimates the cost of a new tractor has increased by roughly 25% over the 2006-2012 period.[4] Furthermore, following each EPA mandate, Class 8 tractors have experienced an average 10% rise in repairs and breakdowns.[17] With new emission and MPG mandates slated for 2014-2017, carriers are preparing for additional capital expenditures and mechanical challenges for the next generation tractors.

## Conclusion

The transportation industry faces many challenges in 2015 and beyond. As highlighted above, increasing recruiting expenses and mileage pay, truck and maintenance costs, preparation for future regulations on equipment, lost productivity due to new regulations and a precarious market capacity situation are all stressing forces.

Shippers should prepare for significant cost recovery and network rationalization efforts from providers of both highway and intermodal services beginning in late 2014 and into 2015.

We hope this document has been informational to you and helpful as your organization begins considering the 2015 budgeting process.


## References


**1.** "Impacts of Driver Shortage Detailed by ATA Chief Economist." ATA.com. American Trucking Association, 22 Oct. 2013. Web. 4 Sept. 2014. <http://www.truckline.com/article.aspx-?uid=0c98b069-cb00-457d-84b4-75a3c0ebaf3b>.

**2.** "Trucking Update." FTR Transportation Intelligence Events Forecasts Subscriptions. FTR Transportation Intelligence, Aug. 2014.

**3.** "Shippers Update." FTR Transportation Intelligence Events Forecasts Subscriptions. FTR Transportation Intelligence, Aug. 2014.

**4.** "Intermodal: The Growth Engine of the Freight Sector." BMO Capital Markets, 30 Sept. 2013.

**5.** "ATRI Study Identifies Significant Operational and Economic Impacts From New Hours-of-Service Rules." Atri-online.org, The American Transportation Research Institute, 18 Nov. 2013. Web. 4 Sept. 2014. <http://atri-online.org/2013/11/18/atri-study-identifies-significant-operational-and-economic-impacts-from-new-hours-of-service-rules/>.

**6.** FTR Intermodal Update, July, 2014, pg. 3

**7.** Baker, Chuck. "Ailroad Capital Expenditures (CapEx) Remain Crucial to the "Rail Renaissance"" Letter to NRC Members and Friends. N.d. National Railroad Construction & Maintenance Association (NRC), n.d. Web. 9 Sept. 2014. <http://myemail.constantcontact.com/Rail-Industry-Capital-Expenditures---Special-Report-by-Tony-Hatch--Sponsored-by-the-NRC.html?soid=1106103828154&aid=xwRVdIrDGyE>.

**8.** Tita, Bob, and James R. Hagerty. "Caterpillar Falls Behind GE in Locomotives Race." The Wall Street Journal. Dow Jones & Company, 13 July 2014. Web. 10 Sept. 2014. <http://online.wsj.com/articles/caterpillar-falls-behind-ge-in-locomotives-race-1405291739>.

**9.** Hatch, Tony. "Railroad will set another capex record in 2014. But will what they spend be enough?" Progressive Railroading. Mar. 2014. <http://www.progressiverailroading.com/class_is/article/Railroads-will-set-another-capex-record-in-2014-But-will-what-they-spend-be-enough--39812>.

**10.** "Tracking Intermodal: Fundamentals Sound; Digging Out From Winter Slump." BMO Capital Markets. 21 Apr. 2014. <http://research-ca.bmocapitalmarkets.com/documents/e3e889c6-9ae3-4b59-8706-0030e92044eb.pdf>.

**11.** "AAR Reports Increased Weekly Rail Traffic." AAR.org, Association of American Railroads, 28 Aug. 2014. <https://www.aar.org/newsandevents/Freight-Rail-Traffic/Pages/2014-08-28-railtraffic.aspx#.VAh6rfldX8U>.

**12.** Equity Research: The Freight Economy In Charts." Wells Fargo Securities. 17 Mar. 2014.

**13.** Morgan Stanley Research, Data as of 06/20/2014

**14.** Trans4Cast.com

**15.** Transcore DAT, DAT Solutions

**16.** Morgan Stanley Research, Data as of 08/26/2014

**17.** ACT Research Co., LLC


## About J.B. Hunt

J.B. Hunt Transport, Inc. focuses on providing safe and reliable transportation services to a diverse group of customers throughout the continental United States, Canada and Mexico. Utilizing an integrated, multimodal approach, we provide capacity-oriented solutions centered on delivering customer value and industry-leading service.

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