

# DESIGNED TO DELIVER

Report from the Dynamic Roundtables with  
MIT Center for Transportation & Logistics at Uber Freight  
Autumn 2019

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## EXECUTIVE SUMMARY

The MIT Center for Transportation & Logistics (MIT CTL) facilitated a series of roundtable discussions in conjunction with Uber Freight's Deliver '19 conference. On September 4, 2019, more than 150 participants contributed to the discussion. The group was comprised mostly shippers invited by Uber Freight and industry sponsors of CTL. Overall, the sessions focused on a **better understanding of how to improve the efficiency and effectiveness of the relationships** between shippers, carriers, receivers, drivers, and third parties. The recent shift from a tight carriers' market to a soft shippers' market provided a natural example of how this sector cycles between boom and bust.

Each session started with a short presentation on a topic. Next, the group divided into small groups for deeper discussions of the session's issue followed by more open discussions. Additionally, interactive polls were taken to gather participants' anonymous opinions on various facets of their experiences with the discussed issues and their company's likely plans.

Each session had a specific focus.

In the first session, the group discussed how delays and poor "driver friendliness" at shippers' facilities increased shippers' costs and reduced the shippers' access to truck capacity. Shippers reported working on providing better facilities, WiFi, driver appreciation events, and reducing delays, and other frustrations that impair the productivity of truckers.

Session two explored shippers' knowledge of drivers' hours of service (HOS) and the generally positive expected impacts of five potential changes to the Federal Motor Carrier Safety Administration (FMCSA) regulations of HOS. Shippers debated the merits of knowing a driver's remaining HOS, with concerns about liability being possibly offset by better flexibility, service improvements, and freight theft reductions.

The third roundtable covered transportation procurement practices. The group lamented the adversarial incentives and opportunistic behaviors of both shippers and carriers that ultimately reduce the efficacy of the contracts and increase shippers' costs when they are forced to use the spot market. There was a general sense of dissatisfaction with the current "Dominant Design" for transportation procurement that starts with an annual pricing event that feeds into a static routing guide. Several potential modifications were discussed.

The final session covered shippers' future expectations and plans for 2020. Truckload rates were generally expected to bottom out in 2019, with more participants expecting an eventual modest increase. Many shippers were expanding their use of brokers to access more carriers, while others were consolidating the number of carriers with which they worked in order to deepen relationships with a smaller portfolio of carriers (which may include selected brokers, too). Companies were pursuing initiatives for better cost management, forecasting, and use of technology. Companies were also working to better educate senior management about the complexities of market cycles in transportation and the sector's shifting effects on strategy, execution, and costs.

Through these roundtables, three calls to action were identified for shippers. This report discusses each of these calls to action in detail. Shippers need to:

- 1. re-think their transportation procurement practices,**
- 2. improve the efficiency within their own facilities, and**
- 3. be more empathetic to drivers in general.**

# CALL TO ACTION #1

BLOW UP THE DOMINANT DESIGN  
OF TRANSPORTATION PROCUREMENT!

*“Everyone has a plan ‘til they get punched  
in the mouth.” —Mike Tyson*

## BLOW UP THE DOMINANT DESIGN

In order to develop a stable budget or plan, shippers have been procuring truckload transportation in the United States using the same standard two-stage process for over 20 years. This is the dominant design for freight transportation procurement. In the first stage, shippers conduct a periodic (usually annual) strategic reverse auction to match carriers to lanes within their freight network at the volumes forecast for the next 12 months or so. Carriers bid on lanes, or combinations of lanes, that best fit their capacities and activity patterns. The shipper selects the carriers with the best combination of low-cost and desired level-of-service that is used to populate a routing guide listing preferred carriers by lane.

In the second stage, a tendered load is matched in the routing guide to the appropriate preferred or primary carrier. If that carrier cannot accept the load then the shipper moves to alternates in the routing guide or, as a last resort, to an auction or the spot market. Of the shippers in attendance, nearly two-thirds (63%) ran annual bids/auctions/pricing for their truckload freight and the vast majority (72%) reported that they use contract rates as much as possible.

The question was raised whether this existing process makes sense – especially in light of the capacity crisis from fall 2017 to fall 2018, as shown in Figure 1, below.

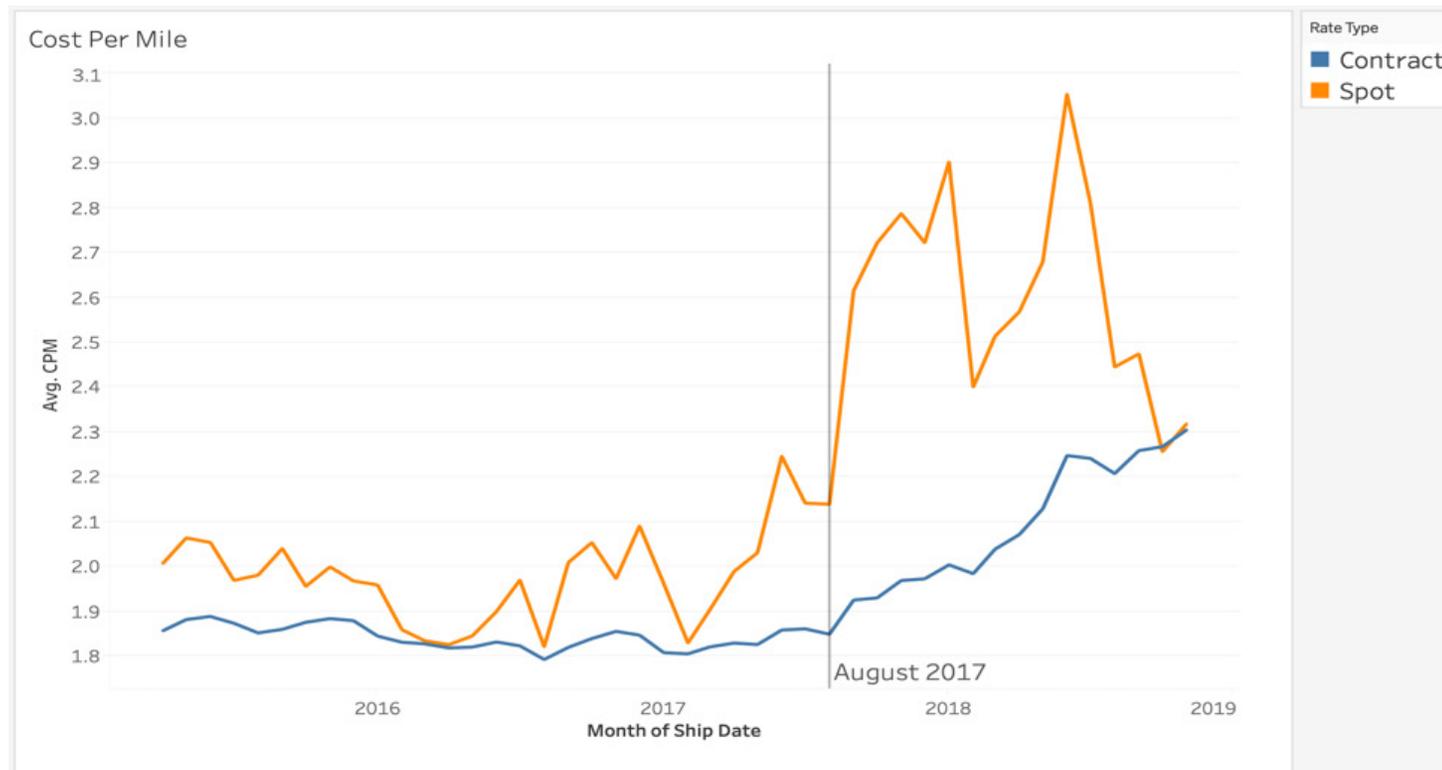


Figure 1. The national average cost per mile for spot and contracted TL transportation rates. Source: Chainalytics, LLC.



Interestingly, just as the market tightened up to new highs in 2017 to 2018, it flipped to a shipper's market in early 2019, see Figure 3. While it seemed sudden, it has actually followed a somewhat similar pattern over the last 10-plus years cycling between peaks and valleys with only slight differences in the timing and amplitude.

Of course, shippers had a much different experience in 2018-2019 compared to

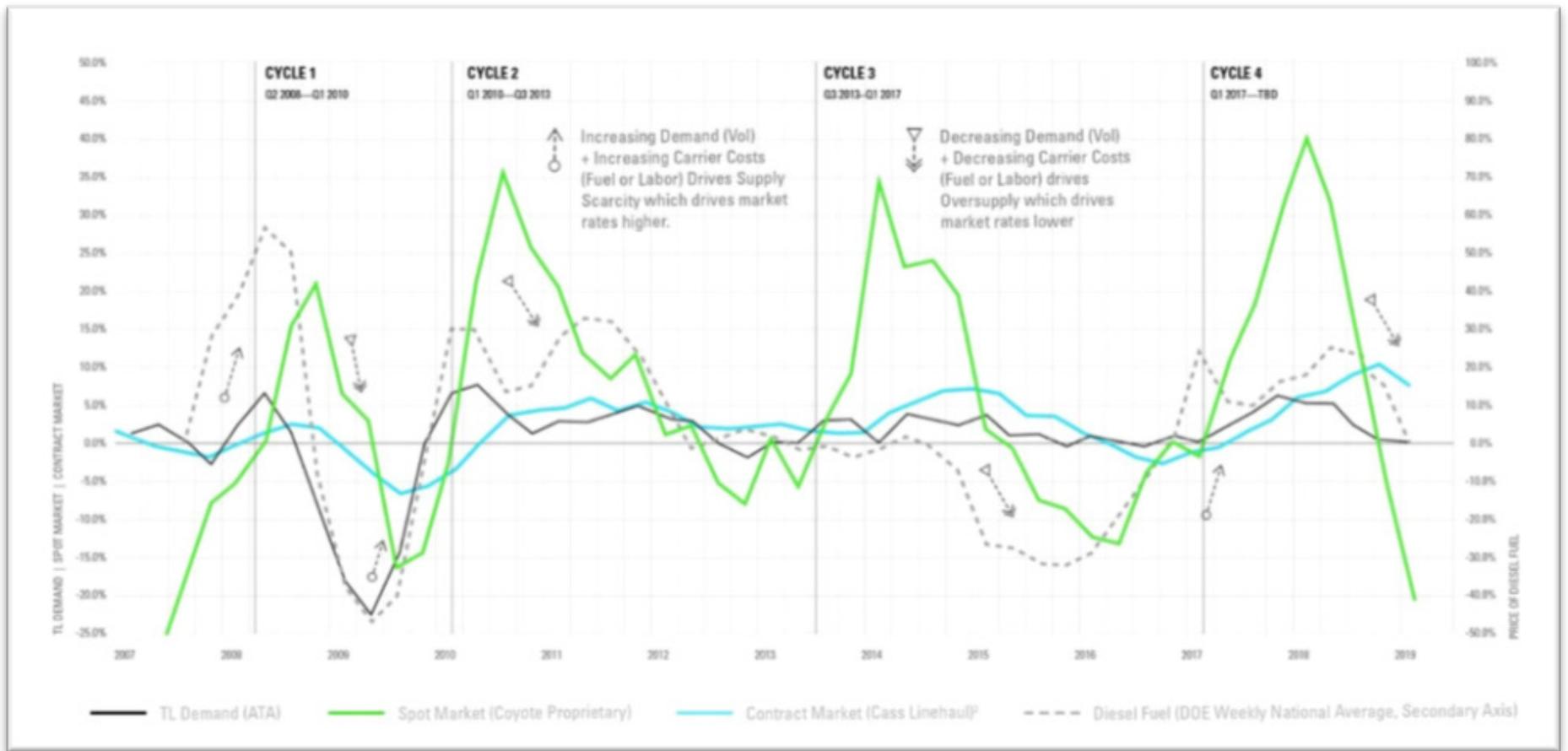


Figure 3. Year over year comparisons of Cass TL contract rates (blue), Coyote spot rates (green), #2 on the road diesel fuel (black dashed line), and ATA truckload demand. Source: Coyote Logistics



## ARE ANNUAL BIDS PASSÉ?

the average timespan to be 3.6 months with almost 10% taking more than half a year! Sadly, these durations have not changed much over the last decade. While improvements in technology could, in theory, speed up the bid process, most companies noted that the time saved by technology was spent conducting more post-bid analysis.

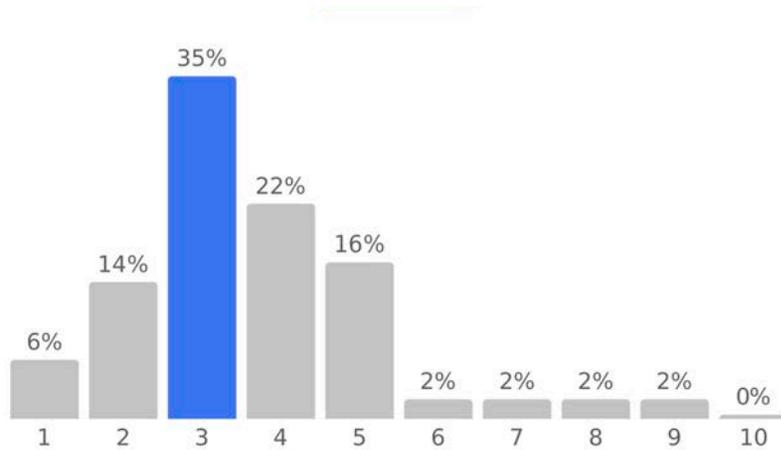


Figure 5 Poll of number of months to complete an annual transportation bid from data collection to moving under new rates.

Assuming that the shipper needs to provide the carriers with a full year of projected freight volumes, this means that, on average, shippers need to forecast 15 months out! Forecasting accuracy for transportation demand over this time period is typically quite low.

Having spent months on a bidding process and awarding an annual contract, the next question is how well the awarded contracts performed. Good performance was not a foregone conclusion because of the largely non-binding nature of the

contracts. Shippers typically do not guarantee that carriers will get a specific volume on a specific lane because shippers don't know the exact level of future demand. Demand forecast errors and other changes in a shipper's supply chain can create unexpected shortfalls and surges in lane-by-lane volumes. Similarly, carriers do not typically guarantee they will accept every tendered load because they don't know if they will have a truck at the right place at the right time.

A poll, see Figure 6, of the subset of participants who ran annual bids asked them to indicate what percentage of the contracted rates were still active at levels near the projected volumes by the end of the year. While a third reported that 80% or higher was still active, another third reported less than 60% adherence! Other research has found that annual bid contracts have a half-life of about four months, that is, 50% or less of the freight volume is flowing on contracts established at the start of the contract year within just four months.

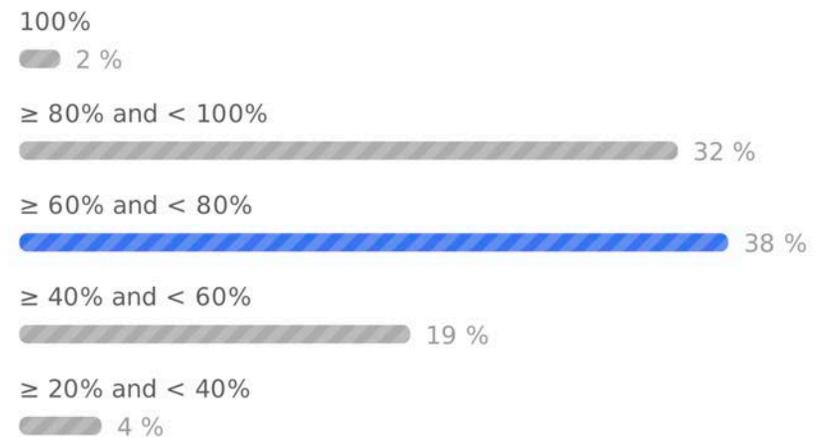


Figure 6. Poll response for what percentage of contracted rates are still active at close to the projected volumes at the end of the contract year.

It became apparent that most shippers do not actively monitor their “contract leakage” over the year. Additionally, some shippers noted that they continuously modify their rates in the routing guide throughout the year by using “mini-bids”. In a poll of procurement practices, only 21% of participants said that their routing guide rarely changed. Given that so many companies experience changes from their projected volumes and carrier commitments, the routing guide is treated like a “living document” which makes it very difficult to measure contract compliance! Also, if the bid process takes three months and one-third of the plans change by the end of the year, does the annual transportation bid still make sense?

## DOES BEHAVIOR DEPEND ON THE STATE OF THE MARKET?

The price dynamics of the transportation market, along with the incentives on both carriers and shippers, seem to potentially doom the use of contract rates. If spot rates surge above previously agreed-upon contract rates, carriers may be tempted to devote more of their capacity to the higher-paying spot market and reject tendered loads offered at the lower contract rate. When the cycle flips and spot rates slump far below previously agreed contract rates, shippers may be tempted to skip the routing guide and tap the low-cost capacity of the spot market. Thus, both sides have incentives for disloyalty or “contract abandonment” when the market is in their favor.

A poll about the mutual loyalty of shippers and carriers asked for participants’ opinions about whether shippers stick with their contract carriers in soft markets and carriers stick with a shipper in tight markets. As shown in Figure 7, nearly half (48%) of participants believed that neither shippers nor carriers reciprocated. That is, both sides were opportunistic. Less than one quarter (21%) felt that both carriers and shippers reciprocated and kept their commitments.

Given the preponderance of shippers in the audience, it’s not surprising that 20% thought shippers stuck with carriers more than the other way around, while only 11% thought carriers stuck with shippers more than the other way around. Boiled down, the poll showed that 68% thought carriers were opportunistic and 59% thought shippers were opportunistic.

Recent research at MIT into carrier behavior has suggested that carriers tend to be myopic.<sup>2</sup> Rather than consider a shipper’s historical treatment of the carrier over the previous market cycle, it appears that carriers focus on what that shipper is currently tendering and paying. It was noted that most of the failures in routing guides tend to be the shipper’s fault due to poor volume forecasts, rather than carriers defecting.

Specifically, a shipper might tell a carrier they will get 4 loads a week on a lane, but forecasting errors may result in those loads not materializing, which breaks trust, or conversely, increasing by a large multiple. These phenomena lead to carriers defaulting due to what the market is doing.

Exactly how carriers actually behave as spot rates change was an open question.

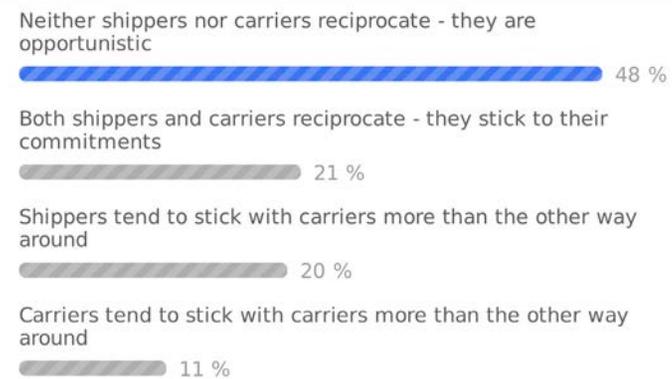


Figure 7. Poll responses to the question “Concerning reciprocation, where a shipper sticks with a carrier in soft markets and carriers stick with a shipper during tight markets, which statement is generally true in your experience?”

Shippers can assess contract carriers’ behavior by measuring how the probability that a shipper is forced to go to the spot market depends on spot market conditions. The most common pattern of carrier behavior is a non-linear increase in rejecting contract loads as spot prices rise. Not all carriers behave this way, but it seems to be the dominant pattern.

2. Acocella, A. et al. (2019) “Elephants or Goldfish?: An Empirical Analysis of Carrier Reciprocity in Dynamic Freight Markets” Working Paper, MIT Center for Transportation & Logistics.

One participant lamented, “I used to believe that relationships matter,” while others agreed with the sentiment of each trying to get the upper hand on the other. Another participant wondered, “Will there ever be a day when carriers and shippers don’t want to screw each other?”

Shippers can’t be afraid to have tough conversations with carriers during tight markets, but they also have to take carriers’ efforts into consideration when markets are soft, a participant said.

*“Will there ever be a day  
when carriers and shippers  
don’t want to screw each  
other?”*

*—Roundtable Participant*



## BALANCING RATES VERSUS RELATIONSHIPS

Rates weren't the only factor in shippers' procurement decisions. Several shippers emphasized service quality and time to market. Not having a shipment arrive on time can cost the company more than a higher contract rate, so the company didn't try to focus on getting the lowest cost, but also valued the relationship with the carrier. The shipper paid above average and had the relationship trump the rate. A CPG shipper added that poor carrier performance leads to fines and fees from retailer customers, so the shipper factored in past performance and total costs when selecting carriers. Customer-centric shippers realized that carriers were an extension of the shipper in serving the end customer. Thus, these shippers didn't want to be penalized by a carrier's poor performance and weren't going for the lowest rate for that reason.

It was agreed that most shippers don't simply grab the lowest rate. However, the question remained about how much weight they put in that rate number. A beverage shipper said they respect incumbent carriers and typically award 80% of their business to incumbents because service is important. Yet when pressed on the issue of paying perhaps 20% more for an incumbent, the shipper said they'd work with an incumbent who was 10% over but warn them they might lose the bid.

## WHAT SHOULD SHIPPERS DO NEXT?

Over the course of the event several potential strategies were brought up. These include: shifting procurement to be portfolio based, experimenting with index based rates, and establishing shorter contracting periods. Each is discussed in turn. **Unfortunately, even with the recent market turmoil, many shippers are still very hesitant to try new approaches.**

### Shifting to a Portfolio Procurement Strategy

Different shippers mentioned very different directions of change in their recent procurement strategies based on their experiences and needs. Two years ago one shipper had partnered mainly with asset-based carriers, but when rates took off, so did the carriers. Given the lack of loyalty from its carrier base, the shipper shifted to more of a broker model, which they had previously used only as a back-up. Now, the company uses the broker more as a primary.

A show of hands at the roundtable revealed that about a quarter of the participants had increased their use of brokers. However, a few had decreased their use. For example, an agricultural products shipper had struggled with unpredictable volumes on 6000 potential lanes. The destinations were consistent, but the origins varied unpredictably. As a result, the company shifted to a more asset-based model and having a direct relationship with carriers instead of riding the spot market (because they had been flooding the spot market in the past).

Other companies were consolidating their carrier portfolios and minimizing their portfolio. For example, one shipper formerly had three times as many carriers as it does today. It cut from its tail end of carriers in an effort to have more strategic relationships with fewer carriers, thus being more aligned with them and not seeing them defect. As a result, the shipper didn't need to use the spot market as much. Similarly, other shippers were moving away from mom and pop carriers because it was too many heads to manage and deal with risk in delivery. In some cases, reducing the carrier base included reducing brokers — which was a change in and of itself, to consider brokers on par with asset-based carriers. Overall, shippers tended to be consolidating carriers for consistent, high-volume lanes while leveraging brokers for lower-volume sporadic lanes. Moreover, roundtable moderator, Dr. Caplice pointed out that what looked inconsistent and intermittent to an individual shipper may not be inconsistent to a broker that can consolidate volume across multiple shippers.

Dr. Caplice commented that the number of carriers a shipper has tends to vary with who is in control of the bid process. If the CFO is in charge, then the shipper is likely to have more carriers because a larger field of bidders offers lower blue-sky bid rates. But transportation managers know that those very low bids from the smallest players can have a downside in addition to the administrative costs of managing a larger portfolio of carriers. The company won't reap the promised lower costs unless the winning low-ball carriers accept the loads, which is not guaranteed.

The overall consensus seemed to be that there is a role for different carrier types, to include brokers. In the past, using a broker was almost verboten by most shippers, but now many shippers are starting to adopt a portfolio approach, with perhaps 10-20% use of spot. That said, the roundtable poll of procurement practices found that a mere 9% said that they tried to use spot transportation as much as possible.

### Experiment with Index-Based Contracts

Given that markets go up and down, companies could consider using index-based contracts to reduce the incentives for contract abandonment. That is, they would peg the established contract rate to a market index. Such contracts or charges could allow rates to go up or down, but not as much as the spot market does. This could lessen carriers' incentives to reject loads tendered at contract rates in favor of loads on the spot market. The idea is that an index rate contract reduces the probability of that a shipper will have to go to the higher cost spot market. Rather than actually adjusting the linehaul rate, perhaps a "market accessorial" could be established similar to how most shippers handle fuel surcharge programs.

*64% of those polled said they were not likely to incorporate index-based rates.*

Avoiding rejection by the primary and other contract carriers saves companies money and aggravation. The devil is in the details, however, and depend on the specific rules of engagement. In a recent MIT study where index-based contracts were applied to all carriers hauling freight from certain facilities, it was found that paying more to all carriers — even those loyal carriers who would have taken the shipper's loads anyway — tended to outweigh the benefits of contract loyalty.<sup>3</sup> There might be other ways to incorporate these index-based contracts that make them more beneficial. A poll asking participants their likelihood of incorporating index-based rates within their network showed the majority (64%) being against it!

### Establishing Shorter Contracts

Another option for dealing with unpredictable demand and fluctuating markets was to use shorter contracts such as 30-, 60-, or 90-day contracts. The idea is that since most annual contracts fail over the course of the year due to poor volume forecasts — why not establish contracts for a shorter horizon when the actual shipping volumes are known with better certainty? Since production planning usually firms up at the 3-month window, why not establish quarterly contracts? Or, perhaps, adjust the volumes?

One shipper commented that they were considering trying different contract durations — 12, 18, and 24 months — to diversify its portfolio of contracts. Other shippers were interested in longer contracts (2 years) to lock in the current low rates. However, when asked about their likelihood of incorporating shorter contracts within their network, the majority (56%) were very unlikely to move to shorter contracts with only about a quarter (26%) open to incorporating them. Discussing this poll, Dr. Caplice pointed out that most companies want to stick with the annual bid, the form of procurement with which they are most familiar.

3. Sinha, A. and Thykandi, R. (2019) "Alternate Pricing Model for Transportation Contracts," Supply Chain Management Capstone Report, MIT SCM Program.

# CALL TO ACTION #2

FOCUS ON FACILITIES



## FOCUS ON FACILITIES

Transportation networks consist of arcs (lanes) and nodes (facilities). Most transportation efforts focus on the lanes, but what happens at the nodes can cause ripple effects throughout the entire network. Recent market conditions have led more shippers to recognize the importance of finding ways to improve the efficiency of transportation operations at these nodes.

Participants were polled as to the average dwell time for their best and worst facilities. The results, Figure 8 below, show that there is a considerable gap between best and worst dwell time for different shippers and for their different facilities. The approximate average dwell for best was just under 1 hour while the worst was closer to 3 hours or more.

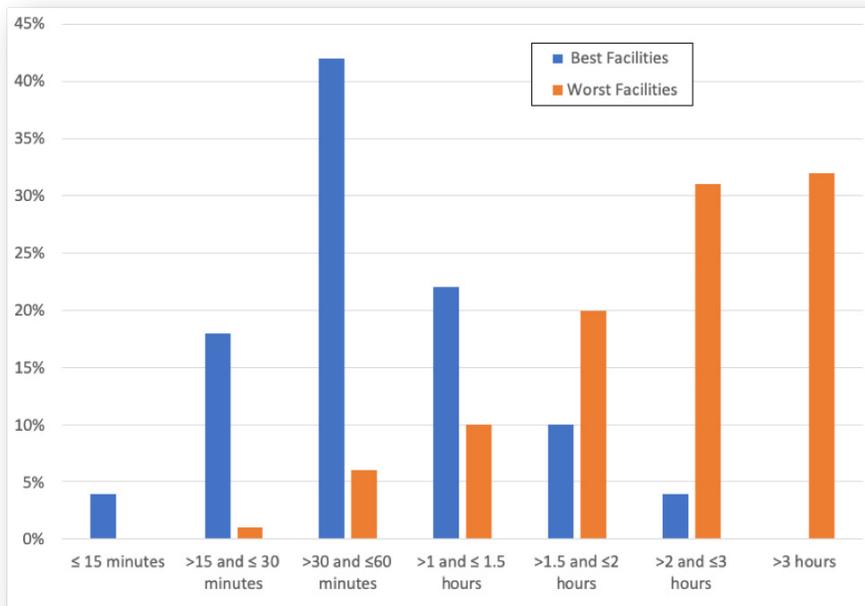


Figure 8. Poll responses for the question, “What is the average dwell time for truckload carriers at your best (blue) and worst (orange) facilities?”

Of course, this depends on whether there is drop-and-hook or live load/unload. But it reinforces the idea that there is tremendous room for improvement.

This led to a discussion about steps to improve speed through shipper facilities. Technology can play a key role in speed. One company mentioned that even simple data handoff takes time. Therefore, deploying an automated time stamp into and out of the facility would save time. The data would be validated on the TMS, so that the driver would not be rejected because the facility was not prepared for the load. Another company employed a truck appointment system to let truckers know the waiting time to expect before they arrived. This deployment smoothed the entire shipping flow from end to end.

Several participants shared how their internal operations can cause delays. Examples included when production lines go down, pallets are lost, labor scheduling, such as when warehouse workers leave at 5 pm even though drivers could pick up loads later than that. One company explained how they use laser-guided vehicles (LGVs) for loads, and it was reconfiguring its warehouses to make those LGVs more efficient so that the whole process could be faster. Similarly, better internal coordination in the warehouse would ensure goods reach the right door and dock for timely loading. On the external side, better signage would help drivers quickly progress through entry gates, reach appointed loading docks, and then find the exit gate to get back on the road.

The discussion also touched on scheduling and what could be done differently. Manual scheduling still dominated and could be a cumbersome process of coordinating between shippers, brokers, carriers, and the drivers. An ocean carrier noted that a truck appointment system for its terminals had reduced congestion, improved flow, and helped drivers manage their time much better. At least one market platform for trucking was developing automated scheduling systems to handle dynamic ETAs and automated re-booking of loads. Advanced geo-fencing of inbound trucks could also be used for dynamic scheduling.

Many challenges still remain. Rural and legacy facilities lag on technology adoption that could give drivers a better, smoother, and faster experience. Shippers' customers are also a challenge because drivers' experiences at the destination facility affect their opinions of the shipper. A participant asked if anyone had a way for "the tail to wag the dog," that is, to convince the receiver to be a better customer by decreasing detention time. Unfortunately, no one had a solution. One company boldly predicted that within five years, one hour would be the standard detention time!

While there was a lot of discussion on improving facility throughput time and efficiency, most of it centered on improving the experience for the driver specifically. This is the focus of the third call to action.

*One company explained how they use laser-guided vehicles (LGVs) for loads, and it was reconfiguring its warehouses to make those LGVs more efficient so that the whole process could be faster.*

# CALL TO ACTION #3

TAKING CARE OF DRIVERS



## TAKING CARE OF DRIVERS

The majority of the improvements to facilities that shippers recommended really centered on improving the driver experience at those facilities. Shippers had a range of responses when asked to describe the driver experience at their facilities, as shown in Figure 8, below. Most responses were negative, although the word “fast” did appear frequently!



Figure 9. Poll response to the question, “What one word best describes the driver experience at your facilities?”

Roundtable participants were also asked to grade themselves on how “driver friendly” their facilities were on an A+ to F letter grade scale. As shown in Figure 10, below, 70% of the shippers gave themselves a B or higher grade! Of course, had the audience been carriers rating the friendliness of shippers’ facilities, the votes may have been different!

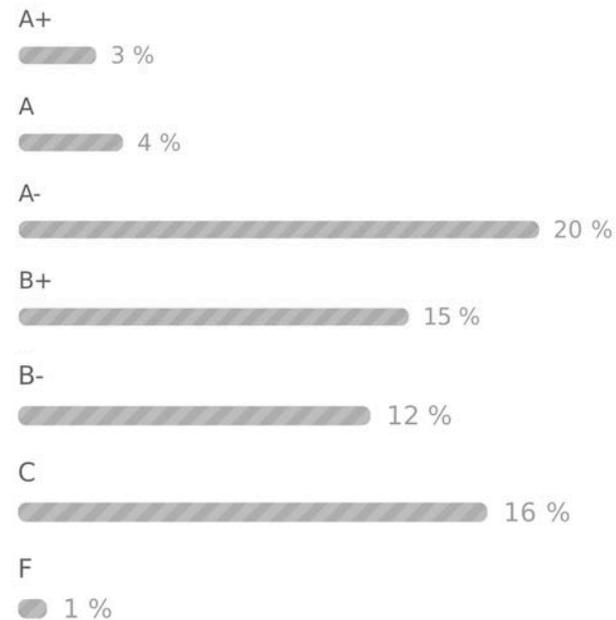


Figure 10. Poll response to question, “How driver friendly are your facilities?”

There was some debate over just how important the driver experience at a facility actually is. A pair of polls asked how the driver experience impacted the long-term freight rates (Figure 11) and capacity availability (Figure 12) on a scale of 1 (not at all) to 10 (very significantly). As the two figures show, shippers generally thought carrier experience mattered – but that it impacted capacity availability more than contract rates; an average of 7.1 to 6, respectively.

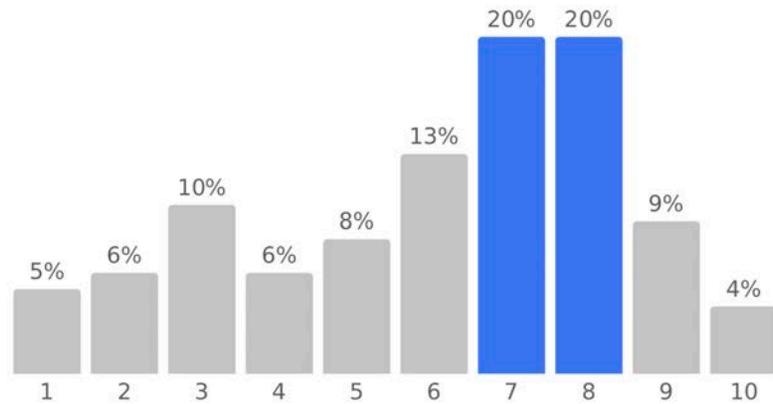


Figure 11. Poll response to the question “How much does the driver experience at your facilities impact your long-term **contract rates**?”  
Where 1 = not at all and 10 = very significantly.

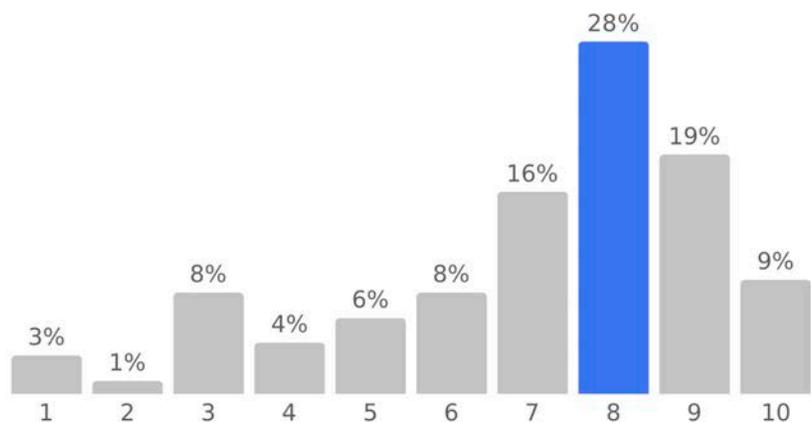


Figure 12. Poll response to the question “How much does the driver experience at your facilities impact your long-term **capacity availability**?”  
Where 1 = not at all and 10 = very significantly.

Participants discussed the steps they were taking to improve their facilities for drivers. One company had a team that reviewed drivers’ ratings of their facilities and drilled down to find out why some ratings were low and what could be done to improve them. Another was working hard on having excellent facilities so that they would be the “shipper of choice.”

A retailer listed three approaches to making drivers happier, and most others in the room echoed those recommendations. The first approach was to provide good clean facilities, break rooms, and restrooms. Others additionally recommended making facilities safe for women drivers and providing them with equal amenities. Interestingly, one shipper cautioned that too many amenities can make drivers treat the facility like a truck stop or a Starbucks and spend too much time there!

The second improvement – providing WiFi to drivers at shipper facilities – enabled drivers to communicate with their families. Most, but not all, shippers offered WiFi in most facilities. However, some facilities simply did not have WiFi infrastructure or chose not to build it.

Third, some shippers held driver appreciation events to help elevate the mood and status of drivers. Such events included giveaways of items ranging from baseball caps to dog bones for drivers’ canine companions. The celebration of drivers also signaled to the shipper’s own employees the importance of driver satisfaction. More generally, one company said it needed to do more employee training to improve treatment of drivers.

Alternatively, another shipper implemented an automated driver check-in solution to mitigate the hostility that drivers were feeling with some of the shipper’s operations. In particular, drivers were frustrated by the many different shipment reference numbers given to them, even though the shipper could only use one of them. Compounding the delays in hunting for the right number were language barriers with non-English speaking drivers. The automated solution helped drivers check in, choose their language, and enter up to three shipment reference numbers. The software then automatically selected the correct number for the receiver. The system also provided an automated time stamp so that there was no dispute about the delivery time of the shipment. In short, the shipper used its TMS (transportation management system) to provide a customized “self check-in” solution.

## KEEPING DRIVERS DRIVING

The group generally recognized that it was important to keep drivers actually on the road instead of waiting at facilities. In theory, long-haul drivers are allowed to drive up to 11 hours during a 14-hour working day. In practice, however, this number is much lower. A poll revealed the average of the audience's estimate to be 7.2 hours, with most (68%) thinking it was between 6 and 8 hours. This was similar to – but a bit more optimistic than – the 6.5 hour industry average found by the ATA (American Trucking Associations). These figures demonstrate that more than one-third of drivers' potential productive hours are wasted.

In addition to challenges at facilities the hours of service rules also have an impact. The participants were polled on the impacts of five proposed changes to HOS regulations:

Allowing a 30-minute break to be satisfied by on-duty, not-driving status,

1. Split sleeper berth exception,
2. Break of 0.5 to 3 hours within 14 hour window,
3. Extending the drive window by 2 hours, or
4. Changing shorthaul exception.

As shown in Figure 13 below, while rule #4 (extending the drive window) was the most frequent response, the 2nd most frequent was “I have no idea.” [!] The discussion following this poll reinforced the idea that shippers really did not have a clear understanding of what the impact would be. Even published studies had conflicting conclusions that changes might save \$300 million or nothing at all. Indeed, some skeptics in the room (4%) believed that none of the rule changes would have an impact. When asked shippers whether they'd seen any changes since the previous final mandate of HOS rules in April 2018, one shipper noted that now there are many more drivers driving during the day than at night, which causes more congestion.

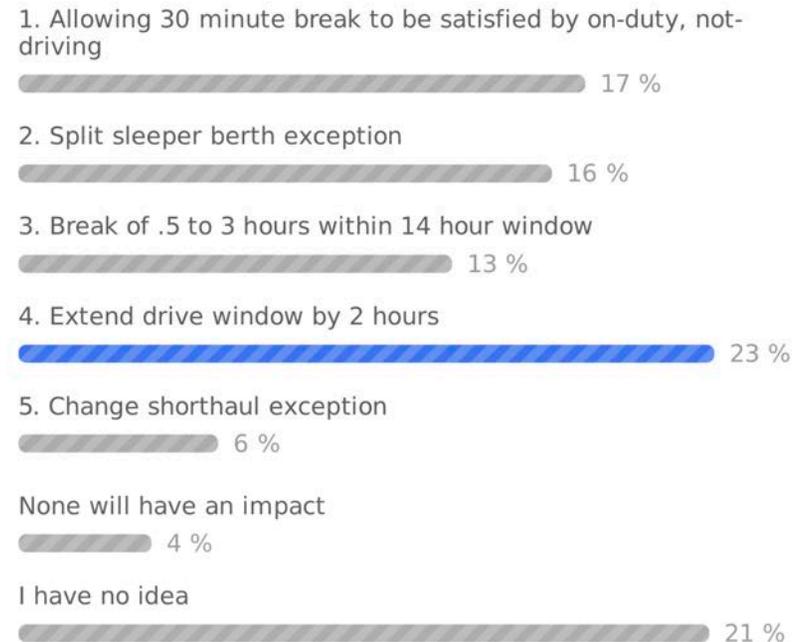


Figure 13. Poll response to the question “Which of the following proposed rule changes will have the most impact on your operations or level of service?”

A participant asked whether anyone thought the FMSCA changes would have a negative impact. No one did. Dr. Caplice speculated that may be because the rule changes relax current constraints but don't prevent drivers from doing what they currently do. He also added, however, that carriers could be concerned that drivers may overwork.

The group also discussed the extent to which shippers knew (or wanted to know) drivers' remaining HOS when they picked up a load. With the exception of shippers with private fleets, shippers generally do not currently know. Some predictions are made based on hours and miles, but shippers typically lack data on drivers' specific HOS. Some third-party providers did offer estimates of drivers' available HOS.

Some shippers indicated that they would like this information, because it would enable them to re-route a driver for an additional pick-up or drop-off if the driver

had the available HOS. One shipper wanted to ensure drivers had enough remaining HOS to drive at least 150 miles from the pick-up to minimize the chance of cargo thefts. The information would also help outbound planners avoid going to the spot market.

On the other hand, other participants said that although a carrier would need to know hours remaining, a shipper would not necessarily want to have this information because of liability. If the shipper knew the driver had only a limited number of hours left, the decision to give the driver an additional route may be put under scrutiny. Shippers were concerned that if their freight was on a truck whose driver's hours-of-service were about to expire, it put the delivery at risk in terms of driver safety (tiredness) and in terms of theft or late delivery. Although HOS does need to be managed, it was generally agreed that shippers should not be the one managing it.



# CONCLUSIONS

*“You never want to let a serious crisis go to waste.” —Rahm Emanuel*



## CONCLUSIONS

During the roundtable discussions, participants reported both good and bad outcomes in their communications with senior management. On the good side, one participant convinced senior leadership of the value of going to brokers in order to access the broad base of owner/operators that the company hadn't tapped before. Another convinced his management to open two new warehouses with larger yard space and a yard management system to improve truckers' experiences. On the negative side, others were frustrated that senior managers do not understand the market cycles of the transportation industry. Executives see a transportation strategy and a transportation budget, assume it is constant, and want to move on. But the situation is much more dynamic. Communicating the market cycles and dynamics to top management is often complex because it's difficult to explain the types of bidding and relationships to carriers.

Ultimately, the future of all of the issues discussed during the roundtable sessions depends on top executives understanding the nature of transportation. To improve this communication, one company reported that they moved the transportation function further upstream in the supply chain so that decisions in forecasting and planning would take transportation into account.

Truckload transportation plays a role in the speed and level of service in many supply chains. Trucking also comes with significant costs that are often increased through a shipper's actions or inactions (and a carrier's counteractions). A deeper understanding of how to accelerate trucking processes, improve service at the nodes of the system, and remove delays that reduce drivers' limited HOS has the potential to improve the system. Instead of treating transportation like the caboose of a train, companies could treat it like the axle of a vehicle: with good lubrication and care, that axle can improve the speed and reliability of the whole system.

## What To Do Next?

First, for some companies, simply hitting their transportation budget would be a welcome change and a sign of success. As long as the acceptance of loads stayed high, one shipper said he was on track for making his budget. If the acceptance rate started slipping, the shipper would look for an intervention and make a change. Another shipper was getting better at understanding when activities were having negative repercussions on transport spend and wanted to continue improving knowledge and control of those activities. A third shipper had strategic projects for examining specific key components of logistics costs, such as truckload utilization and demurrage. One of the research projects at MIT CTL is designed to estimate the probability that a budget will experience overruns. The project uses data on acceptance rates by lane and the slope of the cost premium curve in the routing guide.

A second related area of improvement was forecasting, especially transportation cost forecasting to avoid surprises. A participant asked whether shippers in the room thought they had good forecasts. Most didn't think they had good forecasts and wanted better ones. The participant pointed out that annual contracts require annual forecasts, but that his company doesn't have an accurate forecast that far out. His company might have a good short-term forecast, such as quarterly, but not an accurate annual one. It was suggested that most companies have some stable parts of their business that don't vary much from year to year. A show of hands confirmed that some thought that more than 50% of their business was stable. The procurement and management of those lanes should be handled with a different part of the carrier portfolio than more intermittent volume lanes.

The third area was in improving the use of technology such as through greater use of TMS and data. For example, one shipper's initiative for the next year was to use more of the available data for more transparency and better understanding of options. A quick show of hands suggested that many companies now had data scientists on staff, which has been a major change in recent years. Shippers mentioned technology initiatives targeting better strategic segmentation, aggregation, and forecasting of shipment arrivals.

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