



Oklahoma Freight Stakeholder Interview Report | August 2022
Oklahoma Freight Transportation Plan
2023–2030

Contents

1.0	Introduction.....	1-1
2.0	Interview Summaries	2-1
2.1	LOGISTICS SERVICE PROVIDERS INTERVIEW SUMMARIES	2-1
2.1.1	Operations.....	2-1
2.1.2	Facilities and Geography.....	2-1
2.1.3	Market Segments and Types of Goods	2-2
2.1.4	Performance.....	2-3
2.1.5	Constraints	2-3
2.1.6	Technology and E-Commerce.....	2-5
2.1.7	Trends and Risks.....	2-6
2.1.8	Other Comments	2-7
2.2	SHIPPER INTERVIEW SUMMARIES	2-8
2.2.1	Facilities and Geography.....	2-8
2.2.2	Market Segments and Types of Goods	2-8
2.2.3	Transportation Modes	2-8
2.2.4	Performance.....	2-8
2.2.5	Constraints	2-8
2.2.6	Technology and E-Commerce.....	2-9
2.2.7	Trends and Risks.....	2-9
2.2.8	Other Comments	2-9
3.0	Conclusion.....	3-1

1.0 Introduction

This report covers private-sector input to inform the Oklahoma Freight Transportation Plan Update for 2023–2030.

Information was gathered by means of virtual interviews, which were conducted between June 14 and July 8, 2022, with each meeting lasting approximately one hour. The interviewed respondents represented nine companies. These individuals voluntarily provided their companies' perspectives on the freight transportation system in the state.

Participating companies were grouped into two categories: logistics service providers and shippers. The logistics service providers represented three types of service: ports and industrial park, bulk trucking, and heavy haul trucking. Two military establishments were also included.

Respondents outlined their operations, facilities, locations, geographic reach, markets, and types of goods transported. They discussed their use of multiple modes of transportation if applicable to their activity. Their specific performance goals and metrics were discussed, as well as what constraints are placed on this performance by the state of the transportation system and other conditions.

Interviews also covered e-commerce, technology, trends and risks, and a segment open to respondent recommendations. Together these interviews provided a day-to-day outlook on Oklahoma's freight transportation system from the perspective of its major users.

2.0 Interview Summaries

2.1 LOGISTICS SERVICE PROVIDERS INTERVIEW SUMMARIES

2.1.1 Operations

The fields of operation for the interviewed companies vary in type and scope. The logistics service providers in this group move large amounts of freight and heavy equipment by truck, rail, and river barge. Some operators have multiple terminals across the state, with operations in other states as well. Other operators work out of single locations.

Operations range from fleets of 18-wheeler trucks moving petroleum products to trucks hauling oversized super loads up to 700,000 pounds. Other activities include bulk agricultural products moving by truck to rail terminals or barges at the state's inland port locations. These transportation operations therefore service major areas of economic activity in the state.

Several respondents oversee thousands of acres of port and industrial park land. One of these locations sees 500 to 1,000 trucks move in and out of the facility daily and accounts for 2 million tons of freight annually. All that movement touches the highways, because that location does not connect to rail.

2.1.2 Facilities and Geography

The interviewed companies account for approximately 25 locations throughout the state. Locations include Tulsa, Oklahoma City, Chelsea, Catoosa, Muskogee, Shattuck, Enid, Wakita, and Renfrow. Geographically, most of the activity discussed in the interviews occurs in the eastern part of Oklahoma.

By interviewing the management of ports and industrial parks, we received input from the major state hubs of transportation. These locations host multiple tenants whose companies move large amounts of freight. Facilities under operation include grain elevators, storage, roll-on/roll-off facilities at ports, and heavy overhead cranes.

Other location types are either more dispersed rural facilities where agricultural products are trucked in and out, tank trucking terminals, or terminals for heavy haul providers. These facilities service geographic areas both local and more distant.

- Grain comes into these service providers from Oklahoma and surrounding states. A large portion of the transported grain is exported through ports on the Gulf of Mexico.
- Fertilizer is imported into the region through Oklahoma ports and then distributed outward. One facility saw fertilizer shipped out to 23 different states in a recent year.
- A bulk tank truck company handles certain petrochemical products that regularly go out of state. Usual destinations include Colorado, Utah, Texas, Louisiana, and the Chicago area.

- Heavy-haul trucking companies can deliver to any of the lower 48 states as well as Canada. “Heavy haul” refers to both oversize and overweight (OSOW) loads.

2.1.3 Market Segments and Types of Goods

The providers interviewed tend to deal with commodities with high tonnages, so these goods largely comprise agricultural products, fuels or petrochemicals, bulk items, or machinery related to oil and gas production. Types of goods include the following:

- Bulk products
 - Agricultural goods
 - Red winter wheat
 - Soybean
 - Corn
 - Liquid animal feed
 - Fertilizer
 - Anhydrous Ammonia – liquid fertilizer shipped to farms by tank truck.
 - Other bulk products
 - Petrochemicals
 - Motor fuels
 - Asphalt
 - Steel plates and coils
 - Pipe
 - Clay and tile ingredients
 - Petroleum coke
- Heavy haul goods
 - Storage tanks
 - Gas-refining crackers
 - Gas-compression equipment
 - Oil field and production equipment

Market segments served by these providers include several major divisions:

- The export grain market exemplified by wheat transported downriver to New Orleans. Wheat is also transported by rail to Houston for export.
- The domestic feedlot market is the main destination for corn. Truck delivery is generally used with the major endpoint in Hereford, Texas. Feed corn also goes to Oklahoma, Kansas, and Arkansas.
- The domestic fertilizer market is supplied largely through imports. An estimated 80% to 90% of fertilizer comes from foreign sources. Fertilizer comes upriver to Oklahoma ports and is then distributed to both surrounding and more distant states, notably Nebraska, North Dakota, and Wyoming.
- Local motor fuel markets in Oklahoma receive gasoline, diesel and liquid propane deliveries at local destinations within 20 miles of the trucking facilities. The market

segment includes convenience store gas stations, such as QuikTrip, and also Kroger and Walmart.

- The petrochemical industry spans the Gulf Coast from Corpus Christi, Texas, to Jacksonville, Florida.
- The heavy-haul market in the area largely services the oil and gas industry. West Texas or Southeast New Mexico are common destinations, but all the lower 48 states could be served.

2.1.4 Performance

Interviews addressed company performance, goals and metrics. The entities interviewed did not all handle this in the same way, due to the nature of their operations.

A tank trucker was able to determine their own delivery schedule for motor fuels, while for chemicals, delivery windows were as narrow as 30 minutes. They were judged on these windows, for which their on-time goal was to be 98% reliable.

A bulk agriculture transporter purchased grain in 15- to 30-day windows, so there was wide flexibility in terms of pickup and delivery. Heavy-haul trucking operations each said their on-time performance should be at 100%, because for large movements like theirs, the entire journey is very carefully planned. Port operations see their performance as highly dependent on waterway conditions.

2.1.5 Constraints

The responding companies identified numerous constraints on their performance from a variety of factors.

Traffic and road constraints were discussed. Congestion, whether daily or due to construction, was cited in interviews as a main hindrance to reliability. For example, a trucking company noted the daily rush hour congestion on I-35, around the junctions with I-44, I-244, and I-40. Additionally, US69 was identified as a roadway placing a constraint on performance. Respondents said US69 needs major upgrades to be adequate for the volume it carries.

One of the ports mentioned US-412 near the Verdigris River as a roadway constraint. Construction of an overpass is expected to reduce crashes and congestion. Rural road conditions were also reported as hindering performance.

Tulsa Port of Catoosa



Source: September 12, 2007.

https://commons.wikimedia.org/wiki/File:Port_of_Catoosa_2007.jpg

For port operations, the major constraint is the health of the waterway. While waterway conditions largely depend on weather, which is outside human control, there was strong consensus that state government can plan to better mitigate waterway problems when they arise. Waterway problems may result from weather events but also from age and the condition of the infrastructure if appropriate maintenance isn't performed and emergency responses are not planned. A respondent suggested that federal funding might reimburse state spending on weather-event responses.

Constraints on the waterway can result from lock closures and maintenance, which are controlled by the U.S. Coast Guard and U.S. Corps of Engineers. Respondents stated that any closure that lasts longer than 14 days creates real issues.

Weather constraints on ports in Oklahoma are demonstrable. At the time of our interview, one port was just reopening after a closure of five weeks due to seasonal flooding. Separate from seasonal flooding, severe flooding (like that in 2019) left behind shoaling problems in the waterway. Shoaling refers to the formation of shoals, which are shallow places in a body of water constituting a hazard for navigation. It was viewed as a constraint that, when the U.S. Corps of Engineers fixes these issues with dredging, they generally start far downstream. With more funding, dredging could be started closer to the port or possibly at the state line, suggested our respondent. This would allow Oklahoma ports to open in a timelier manner, in line with the ports along the Mississippi River. One port location experienced major damage from 2019 that is still unrepaired. There was danger of losing an entire dock that could fall into the river. Another respondent reported the U.S. Corps of Engineers wants to increase channel depth from 9 to 12 feet, which would help by permitting barges to load heavier drafts.

Funding for waterway maintenance is the major concern, and state assistance is desired. Respondents mentioned a mooring modernization grant for ports represented in these interviews, and that Oklahoma Department of Transportation (ODOT) applied for the grant on their behalf. Continuing to get such funding and completing the repairs remained the challenge to keep the waterway working. Waterways remaining operational can keep excess trucks off the roadways, because one barge can carry 60 semi-truckloads worth of freight. And river traffic was seen as far more efficient for certain goods, such as agricultural products.

All respondents acknowledged the constraint the truck driver shortage is causing, which drew further discussion during interviews. Mechanic shortages are causing further constraint of trucks needing repairs. A trucking executive (whose company has a national presence) reported having 20% fewer drivers than in 2019. Companies have trouble attracting young drivers to the field. Expectations of autonomous vehicles may further deter newcomers, who fear being displaced soon. The number of drivers decreased despite wages increasing 40% in the last five years. An attendant issue is that, with higher pay, some drivers don't want or need to work 40-hour weeks.

Other respondents saw a separate reason they get fewer working hours from drivers now. For a facility with consistent, heavy amounts of truck loading, managers reported that laws

requiring logging of hours and required rest can make a 10-hour project become a two-day unload project. Previously, a driver nearing the end of the allowable hours might continue working to finish loading materials prior to taking a break. With the new regulations and electronic logging of hours, the driver must take the break despite the status of the load. Drivers sometimes also pushed the hours to complete the work. For fertilizer season, work weeks ran Monday through Saturday, but the driver log laws resulted in shortening this work week to Monday through Thursday or Friday morning. The changes that have occurred are important for safety reasons, but they have created inefficiencies in the agricultural work process.

Heavy-haul trucking offered their own perspective on constraints. The height of overhead structures was seen as one of their biggest obstacles for their oversized loads. Full overhead signs that cross highways require new routing. One respondent would like higher bridges to be considered and new infrastructure development to be designed for OSOW considerations.



Source: <https://www.rawpixel.com/image/6017167/photo-image-public-domain-free-delivery>

Road restrictions force heavy-haul providers to take long, indirect routes.

For large loads, their biggest expense is the need to exit through the west side of the state even when going east. One respondent detailed a specific upcoming super load trip to Louisiana, which requires 500 additional miles, which is four days longer travel time, and \$40,000 to \$50,000 higher than before rerouting. Another heavy-haul respondent remarked that a recent trip from Oklahoma City to Tulsa totaled 498 miles due to lack of high-wide-heavy corridors for a more direct route.

Other constraints for heavy loads were Oklahoma's strict weight restriction of 20,000 pounds per axle, and the condition of at-grade railroad crossings. For example, the town of Vinita on Route 66 was known to close the highway to lowboys due to their railroad crossing.

2.1.6 Technology and E-Commerce

Technology discussed included safety advancements, electrification, and autonomous vehicles. Interviewed respondents reported adding significant new technologies to their operations in recent years.

Safety advancements were exemplified by responses of a company involved in tank trucking hazardous materials. They reported collision mitigation systems on all their tractors. Another safety system measured liquid movement within tank trailers. They reported use of a cellular-based system for telemetry now, where it was satellite-based before. They have instituted a

strobing yellow light on the top rear of trailers to prevent collisions, which was a feature they pioneered to help it become legal.

Companies have reported adding external cameras as well as internal cameras that watch the drivers. Multiple companies reported using cameras as their own policy, and for insurance purposes. Two separate respondents reported that cameras have shown that 75% to 80% of accidents were not their fault.

One respondent mentioned use of the online system Roger (or rogerthat.com) for dry bulk transport. Their company was one originator of this website and app, which better connects shippers and carriers. Another company reported retrofitting all their rigs for Electronic Logging Devices. Use of Samsara products for GPS and tracking were mentioned. A hauler spoke of the ODOT OkiePROS online permitting and routing system.

Respondents mostly stated that their companies are not yet doing anything with respect to electrification. One logistics service provider reported that their company would see a new electric truck the week after our interview. However, they tempered this with analysis on what prevents scalable electrification. They predicted that electric trucks will remain an unworkable solution for the near future, because current electric trucks weigh 8,000 to 9,000 pounds more than conventional trucks. They said the payload lost in the tradeoff will reduce revenue too much to make sense.

Autonomous vehicles were seen as inevitable for some respondents, who predicted we will see them within a decade. One respondent foresaw driverless trucks as a big problem when they enter a port facility, where they would definitely need a driver, creating headaches with that transition. Companies specializing in hazardous material transport did not foresee autonomous vehicles displacing their human drivers soon.

E-commerce

Although questioned about the effect of e-commerce for their businesses, all respondents responded that, due to the nature of their operations, they did not experience a direct effect from e-commerce.

2.1.7 Trends and Risks

The two most commonly identified risks were driver shortages and the increasing cost of fuel.

Increasing costs of used trucks—reported as having nearly tripled—was also mentioned as a factor that could put independent contractors out of business. A related trend is the unavailability of new trucks. One respondent stated their company can buy only 40% of the new trucks it wants. When more new trucks become available, it was predicted the cost of the used equipment will come into balance.

A respondent explained that their company owns rail cars but does not place them in Oklahoma. They ascribed this partly to a national trend of Class I railroad service performance lagging enough that there was not a guaranteed timeframe for getting one's own rail cars

back to reload. They described the time frames as having stretched from 10 days up to 25 days.

Reliability and resiliency of the waterway was noted as a risk by its users, who emphasized the need to remain responsive to river events.

Weather events, and climate change more broadly, also concerned those interviewed. Hotter temperatures were noted as wearing truck tires more quickly, as well as adversely affecting drivers, especially those in heavy hazmat protective gear. Looking at long-term risks, one respondent saw another problem connected to climate change. This view held that severe weather events will increase insurance payouts, which could have a ripple effect of boosting the amounts truckers must pay to insure themselves.

2.1.8 Other Comments

Interviews featured discussion of Foreign Trade Zones (FTZs) at port facilities. These areas permit the deferment of import duties on assembly of manufactured goods from foreign countries. FTZs draw economic activity to the state through its freight transportation system. Respondents discussed how these zones are expanded through either an extension of sub-zones or an alternative site framework. These both permit the tax-deferred activity to take place off the actual port property. One currently active FTZ user, a pipe manufacturer, was known to our respondents, who wanted to further spread the word about FTZ benefits.

A respondent mentioned a special type of constraint due to their site being served by a single Class I railroad, which created a situation of being held captive to that local rail monopoly.

Another comment noted support for gross vehicle weight limits being seasonally expanded over 80,000 pounds. Due to a shrinking labor force, and the need to move things in a smaller time window, increased limits were seen as a partial solution. Respondents pointed out that surrounding states are known to have done this at times for specific products.

A respondent encouraged future consideration of truck-only lanes or other infrastructure and regulation changes to give commercial traffic preference in avoiding bottleneck areas of regular congestion. It was suggested that studies may justify this due to the extent that commercial traffic affects the whole economy. Drivers waste 20 percent of their time moving slowly each week due to congestion.

A heavy haul respondent spoke of “no harmony” between rules and regulations across state lines and acknowledged responsibility for change might fall to the legislature. Oklahoma requires a pilot car for loads 12 feet 1 inch wide or more, while Texas and Kansas use 14 feet 1 inch wide, and Oklahoma’s weight per axle limit is a hard and fast 20,000 pounds, while in Texas it is 21,000 pounds. They mentioned that “archaic rules and regulations” affect commerce. Their cost likely keeps fabrication out of the state for large pieces that go to the Gulf Coast for export.

OSOW respondents mentioned previous initiatives by the industry in the state to establish heavy-haul corridors. They see this as a way to facilitate transportation of these goods that would enhance the capabilities for certain manufactured goods in Oklahoma.

2.2 SHIPPER INTERVIEW SUMMARIES

2.2.1 Facilities and Geography

Shipper interviews began with discussion of their facilities and geography. Respondents falling within the shipper category operated large facilities. One oversaw 45,000 acres of storage, a manufacturing plant, and 230 miles of rail. Another had a facility where 26,000 people come and go daily. Shipper locations were McAlester and Oklahoma City, which are both military facilities.

2.2.2 Market Segments and Types of Goods

The shipped goods included military supplies—ammunition and aircraft repair components—as well as general supplies. Shipped goods served the U.S. military and civilian employees at facilities.

2.2.3 Transportation Modes

The shipper transportation modes are rail and truck. One respondent in the shipping category generally saw inbound deliveries rather than outbound, with these being truck deliveries.

2.2.4 Performance

One shipper held a primary core competency as a storage depot for ammunition. Outbound shipments are mainly by rail to either the Military Ocean Terminal Concord in California, (MOTCO) or the Military Ocean Terminal Sunny Point in North Carolina (MOTSU). Smaller shipments could be sent by truck, and ports such as Galveston or Houston could be used if needed. Their on-time performance goal is 95% reliable, and they were usually at 99%. Class I railroad performance here was reported as operating well, which is attributed to these outbound moves being contracted by the U.S. Department of Defense. Inbound shipments are by majority truck, with an average of 50 to 100 trucks delivering daily. Inbound contents were noted as not always being explosive because they could be ingredients or components for manufacturing on site.

2.2.5 Constraints

Both shippers cited road conditions and congestion as constraints on their performance. US-69 was listed as a problem road for congestion. The highway was described as, in some places, featuring city street components but with traffic volumes at interstate levels. US-69 was the dominant road route used by a respondent, who has one connection to it.

In Oklahoma City, construction on the I-40 corridor was noted as a constraint. The interchange of I-35 and I-240 was mentioned as needing improvement.

Other constraints mentioned were fuel costs, freight costs, and the COVID-19 pandemic, all credited with making it difficult to get product in. Global supply chain delays were reported to be affected by recent rounds of the COVID-19 pandemic shutdowns in China. The pandemic has also had an impact on labor availability.

2.2.6 Technology and E-Commerce

New technology used in the shipper category involved implementation of improved security checkpoint scanning equipment. One shipper has upgraded all equipment on their site to carry GPS, for internal tracking. Every inbound vehicle to the facility must be inspected. Decarbonization was said to be on the way, with one shipper expecting their first electric vehicle in fall 2022. However, their electrification at that point would begin with daily drivers, not vehicles hauling freight.

E-Commerce

E-commerce was not seen as directly affecting operations for the types of operations conducted by these shippers. However, one respondent noted that e-commerce giant Amazon did not deliver into the facility because of the security checkpoints, while FedEx and UPS did enter.

2.2.7 Trends and Risks

Shippers saw a continued risk to the supply chain from the COVID-19 pandemic. Increasing fuel costs factored as a risk now as well. Additionally, supply chain delays were resulting in a lack of incoming components, which in turn held up their production and outbound shipment. Another risk seen in recent years was a shortage of shipping containers needed to haul waste off their location.

2.2.8 Other Comments

A respondent mentioned that their company would like to develop an additional commercial interchange on US-69 at a point useful for their routes, acknowledging this would require ODOT partnership.

There was concern for an area near a company's privately owned vehicle gate, where a respondent hoped ODOT might deconflict traffic passing through from traffic entering their location, to keep them separate.

A future project was mentioned within Oklahoma City, in which a respondent company will seek permission to have Douglas Boulevard between I-40 and I-240 closed as a main thoroughfare, although some access would remain. A draft of the facility's long-range transportation plan was shared with the team.

3.0 Conclusion

Interviewed stakeholders volunteered a depth of information from various perspectives, to inform the update of the freight transportation plan. Respondents fit in the two categories of logistics service providers and shippers. They explained how their business operations relate to freight movement in the state. Respondents tended to oversee the hauling of large tonnages, movement of oversized freight, and facilities covering extensive land area.

Prevailing themes from interviews include lack of resiliency of the waterway to extreme weather and the need for related infrastructure improvements, truck driver shortages, road congestion and conditions, and new safety and navigation technologies in vehicles. The strong interest in the waterway was expressed not only by port operators, but also by those who transload with barges. Road congestion and conditions were repeated as constraints on performance, with US-69, I-35, and U.S. 412 being mentioned as examples. Oklahoma was viewed as more difficult to travel in than surrounding states for heavy weights and oversized cargoes. New safety technologies aboard trucks were reported in many interviews. Truck driver shortages were a risk repeatedly mentioned by all the logistics service providers.

The represented companies are responsible for major economic activity in Oklahoma. Through the interviews summarized, these users of the freight transportation system were able to give valuable input on the details of their current operations, and the changes they saw for the years ahead. These interviews provided insights into the needs and issues relevant to the freight plan.