WELCOME

OKLAHOMA Transportation

Oklahoma Freight Plan
Freight Advisory Committee

Tuesday, June 28, 2022, from 2:00 to 3:30 PM

Agenda

- Introductions
- Project Purpose
- Project Timeline
- National Freight Goals
- Project Vision Statement and Goals
- Existing Conditions
- Truck Parking
- Wrap Up

Website: www.odot.org/2023-2030FreightPlan

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Project Purpose

To provide a **safe**, **reliable**, and **productive** freight transportation system that will support the growing economy and population in the state.

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Project Purpose

The plan will satisfy federal requirements and will have the following outcomes.

- Increase attention and focus on freight needs and opportunities.
- Improve coordination of freight planning across multiple modes.
- Provide guidance for other state and regional/metropolitan freight planning efforts.
- Obtain input from the public and private stakeholders regarding state freight planning.

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Timeline

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National Freight Program Goals

- Invest in infrastructure and operational improvements that strengthen **economic competitiveness**, **reduce congestion**, **reduce the costs** of freight transportation, improve **reliability**, and increase **productivity**
- Improve **safety**, **security**, **efficiency**, and **resilience** – urban and rural
- Improve network **state of good repair**

National Freight Program Goals

- Use **innovation** and **advanced technology** to improve safety, efficiency, and reliability
- Improve **economic efficiency** and **productivity** of networks
- Improve state **flexibility** to support multi-state planning and address highway freight connectivity
- Reduce **environmental impacts**

Guiding Vision

Oklahoma will continue to provide for the safe, reliable, and productive performance of our multimodal freight system as a mainstay of our economy, ensuring it is resilient to interruption and sustainable for the future.

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Goals

Safe and Secure Travel

- Improve the safety and efficiency of freight movement and its interaction with other vehicles.
- Ensure the ability of urban and rural highways to safely accommodate growth in freight traffic.

Infrastructure Preservation

- Meet freight transportation needs by maintaining the Oklahoma State Highway System in a state of good repair.
- Support the preservation of Oklahoma multimodal freight networks through appropriate polices and initiatives.

Goals

U.S. 69 in Bryan County

Economic Vitality

- Promote competitive access to domestic and international markets for Oklahoma's industries.
- Direct freight-related transportation investments to support the state's economy.

Mobility: Choice, Connectivity and Accessibility

- Foster a diverse portfolio of modal choices for Oklahoma's freight shippers and receivers in urban and rural areas.
- Support end-to-end operations of industry supply chains in Oklahoma markets for Oklahoma's industries.

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Goals

New goal added since last plan

Environmental Responsibility

- Support the growth of Oklahoma clean energy by promoting clean fuel use by freight providers.
- Avoid, minimize, or mitigate adverse environmental impacts related to freight transportation.

Consider the impacts of freight movement on underserved and historically disadvantaged communities.

Efficient Intermodal System Management and Operation

- Ensure the competitive performance of the Oklahoma freight system.
- Safeguard industry supply chains by improving resiliency of the freight transportation system to withstand disruptions.

Promote use of innovation and advanced technology to enhance system performance.

Goals

Fiscal Responsibility

- Capitalize on federal funding and finance programs to aid investment in the freight transportation system.
- Coordinate freight corridor development programs with neighboring states

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Menti Questions

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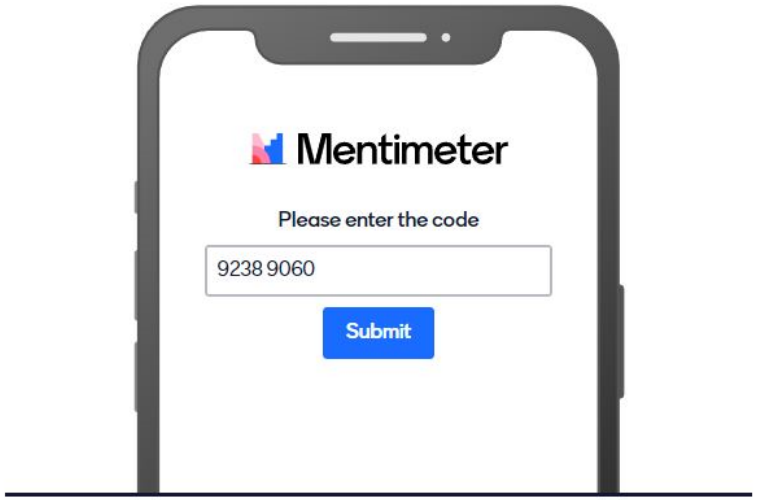
www.menti.com



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Rank the Freight Plan goals in order of importance

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1st Economic Vitality

2nd Infrastructure Preservation

3rd Safe and Secure Travel

4th Fiscal Responsibility

5th Environmental Responsibility

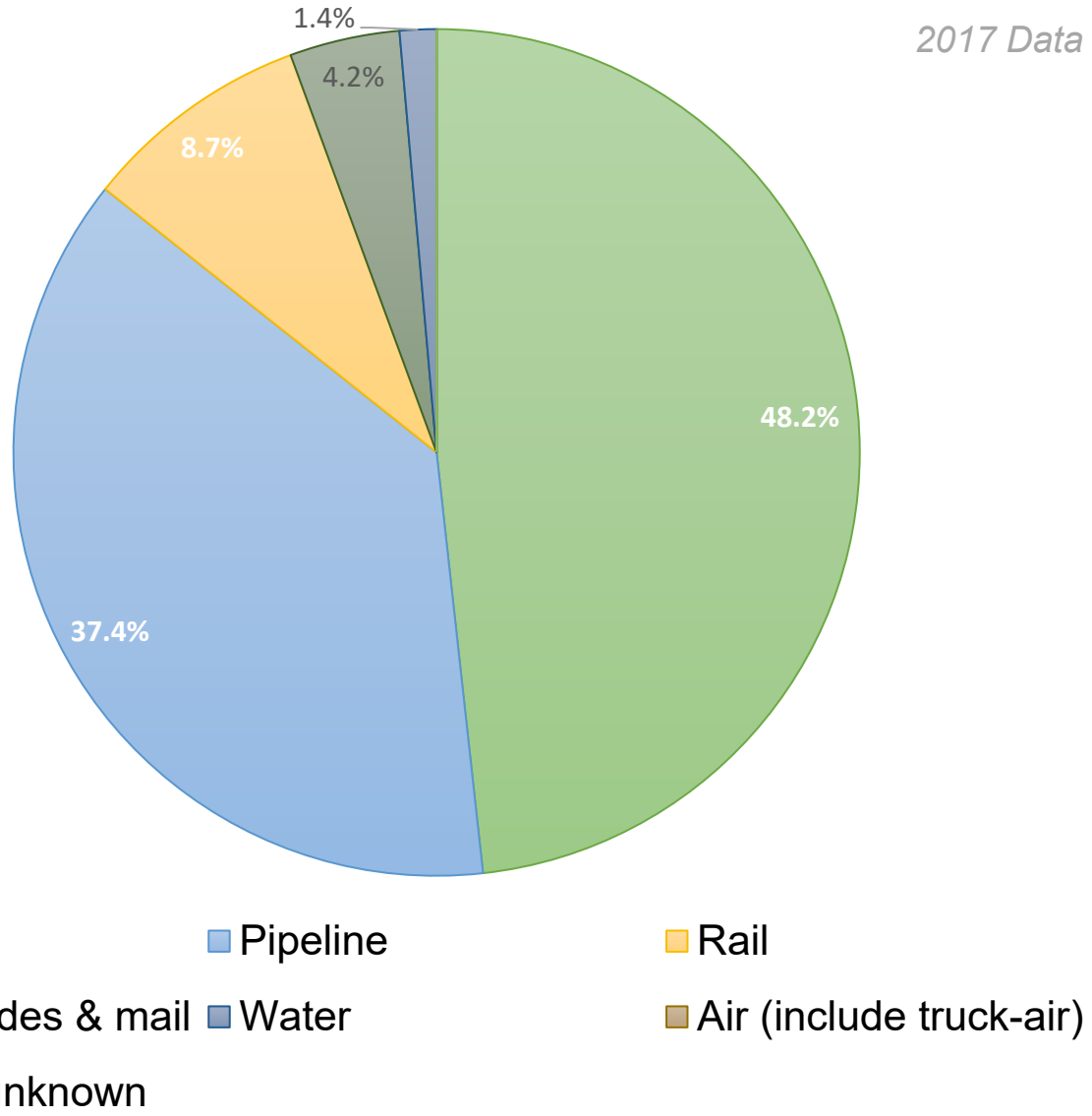
6th Efficient Intermodal System

7th Mobility

Existing Conditions - Freight Tonnage Statistics

Oklahoma-based freight tons by mode

- Trucking and pipelines carry **86%** of freight tonnage
- Without pipelines, trucking is 77% and rail 14%



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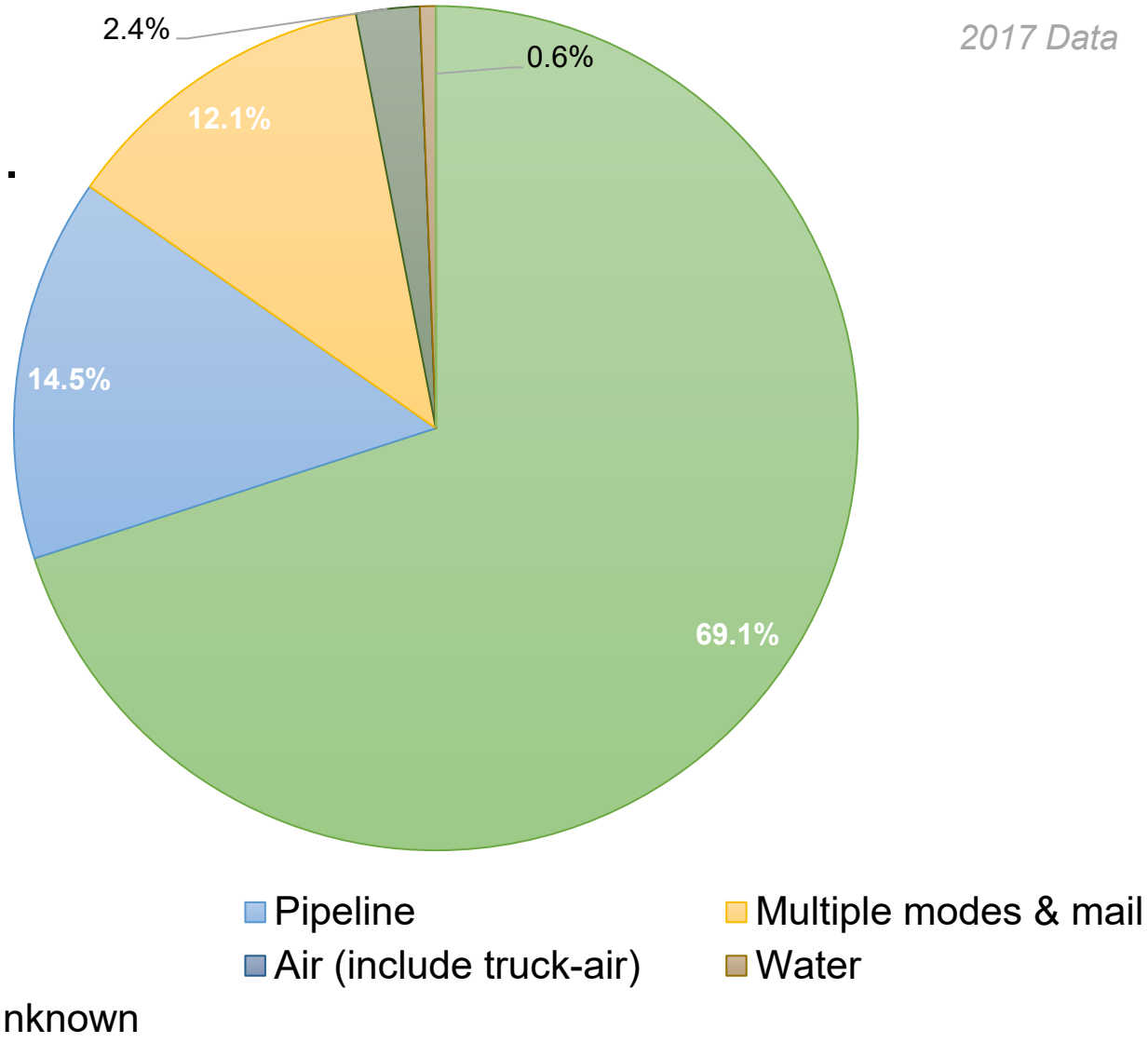
Existing Conditions - Freight Tonnage Statistics

Oklahoma-based freight value by mode

- **81%** of freight value is carried by trucking and multiple modes
- Without pipelines, trucking and multiple modes carry **95%**



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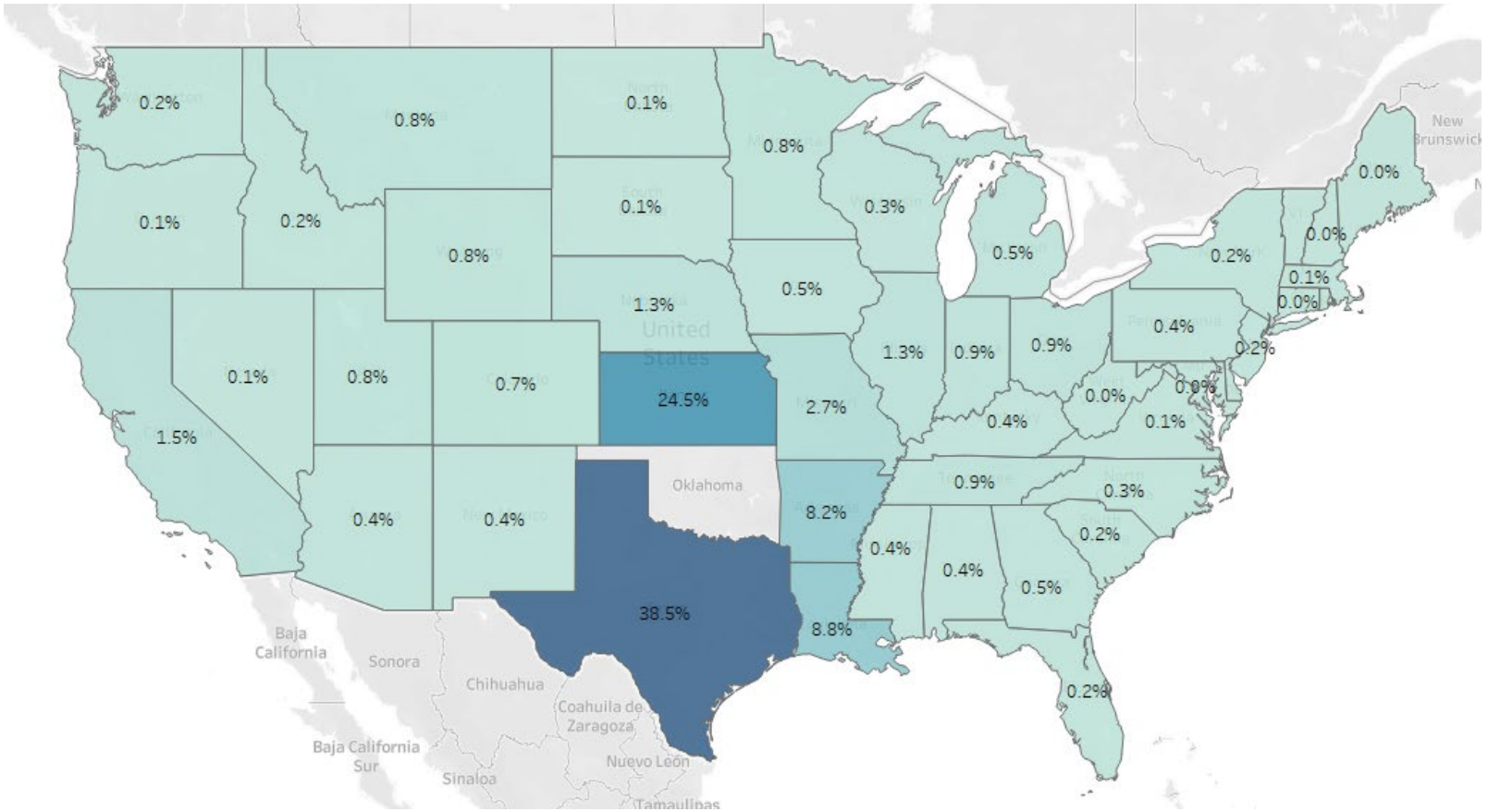
Existing Conditions - Freight Tonnage Statistics

Destinations for Outbound Oklahoma Freight Tonnage

- The Oklahoma outbound market is **largely regional**
- Major destinations include **Texas** (38.5%), **Kansas** (24.5%), **Louisiana** (8.8%), **Arkansas** (8.2%),and **Missouri** (2.7%)



2017 Data

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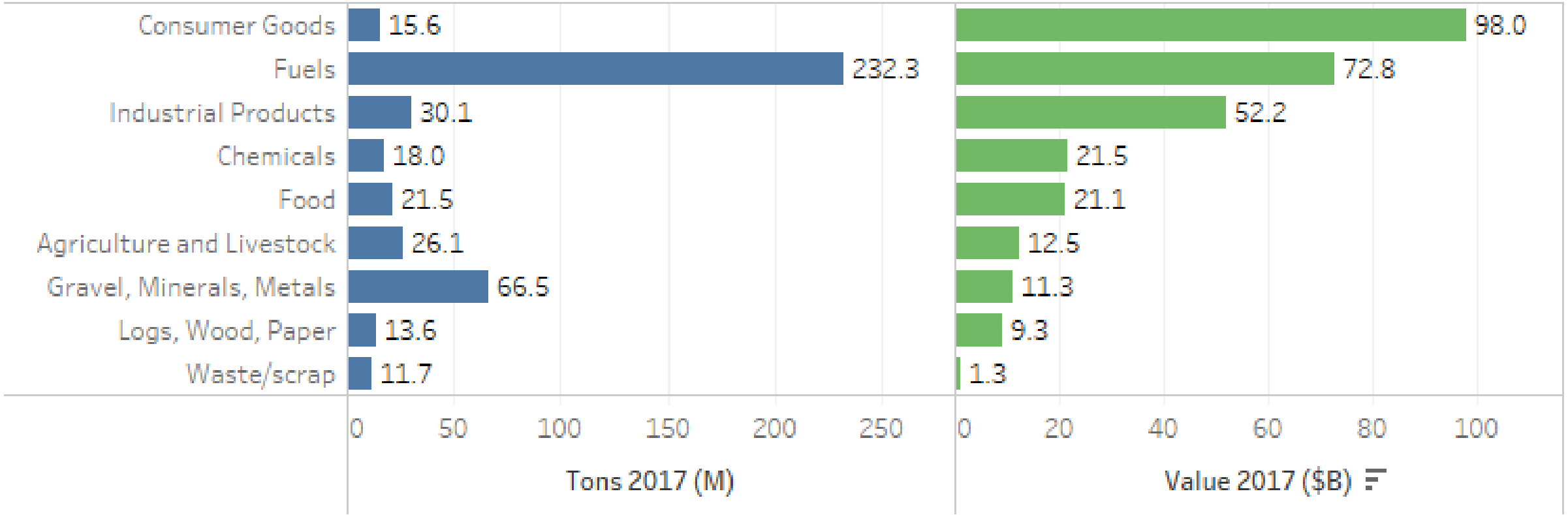
Existing Conditions - Oklahoma Supply Chain Group Commodities



2017 Data

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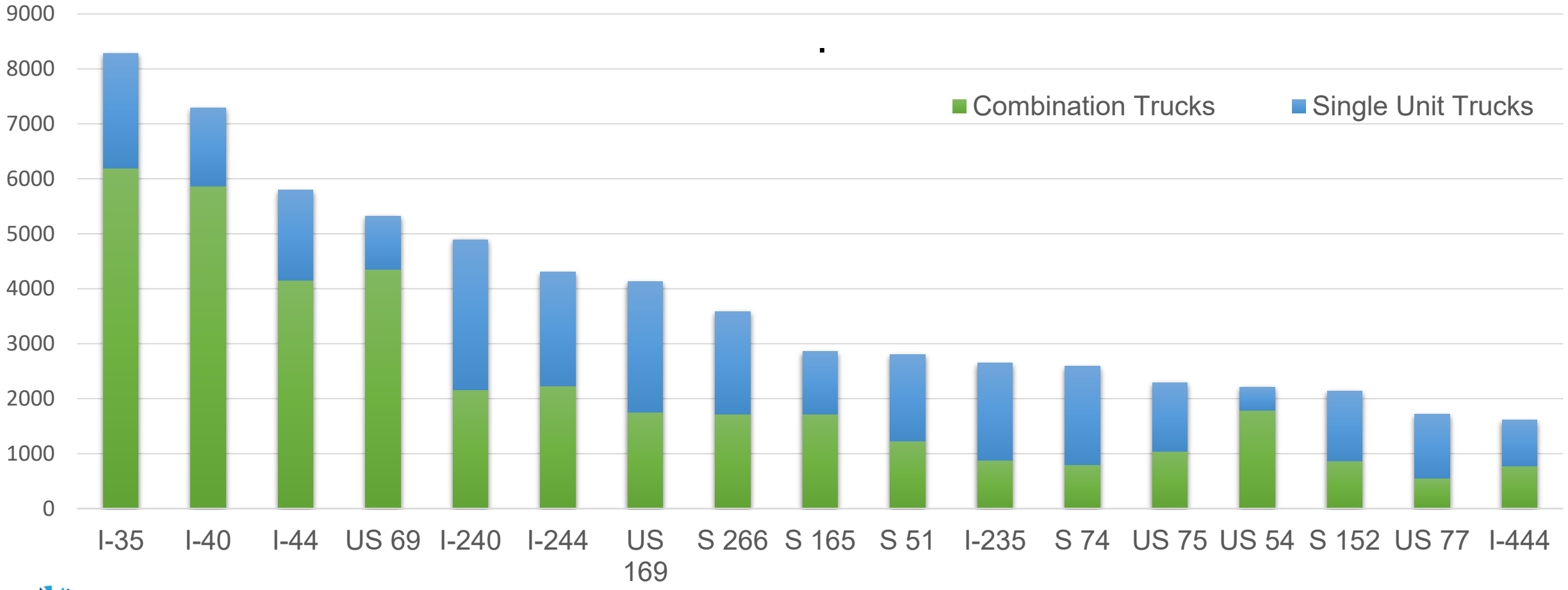
Existing Conditions - Oklahoma Highway Truck Traffic

Average Daily Truck Volumes on Oklahoma Highways



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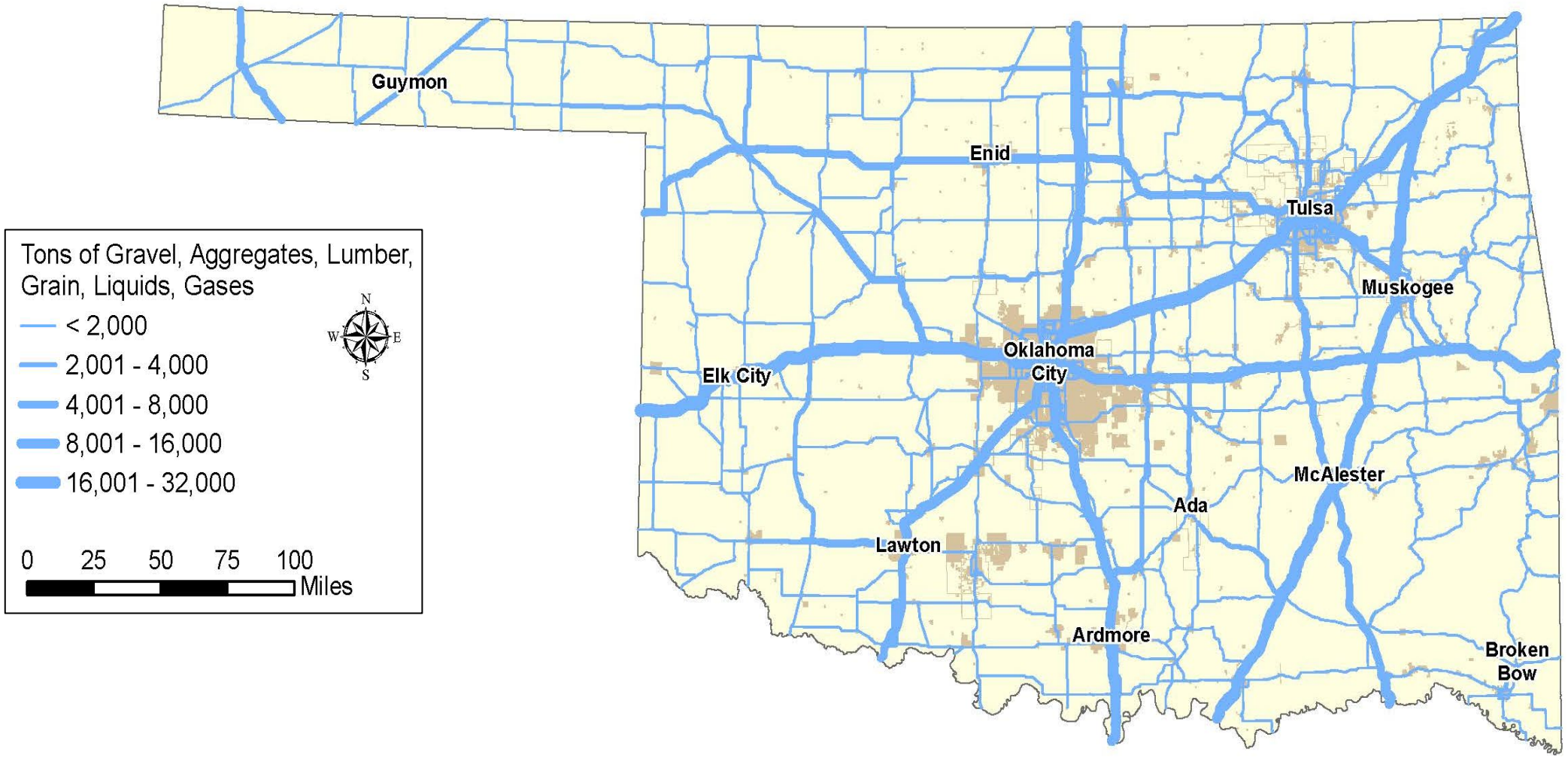
2021 Data

Existing Conditions – Heavy Commodity Truck Flows



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Source: Analysis of Freight Analysis Framework v5.3

Existing Conditions – Truck Operations

Oversize truck on S.H. 266

Preliminary Concerns and Needs

- Six military installations rely on freight system and rapid deployment would strain system.
- Due to increasing Oversize/Overweight Cargo, agriculture, steel, and logging industries have asked for higher weight limits.

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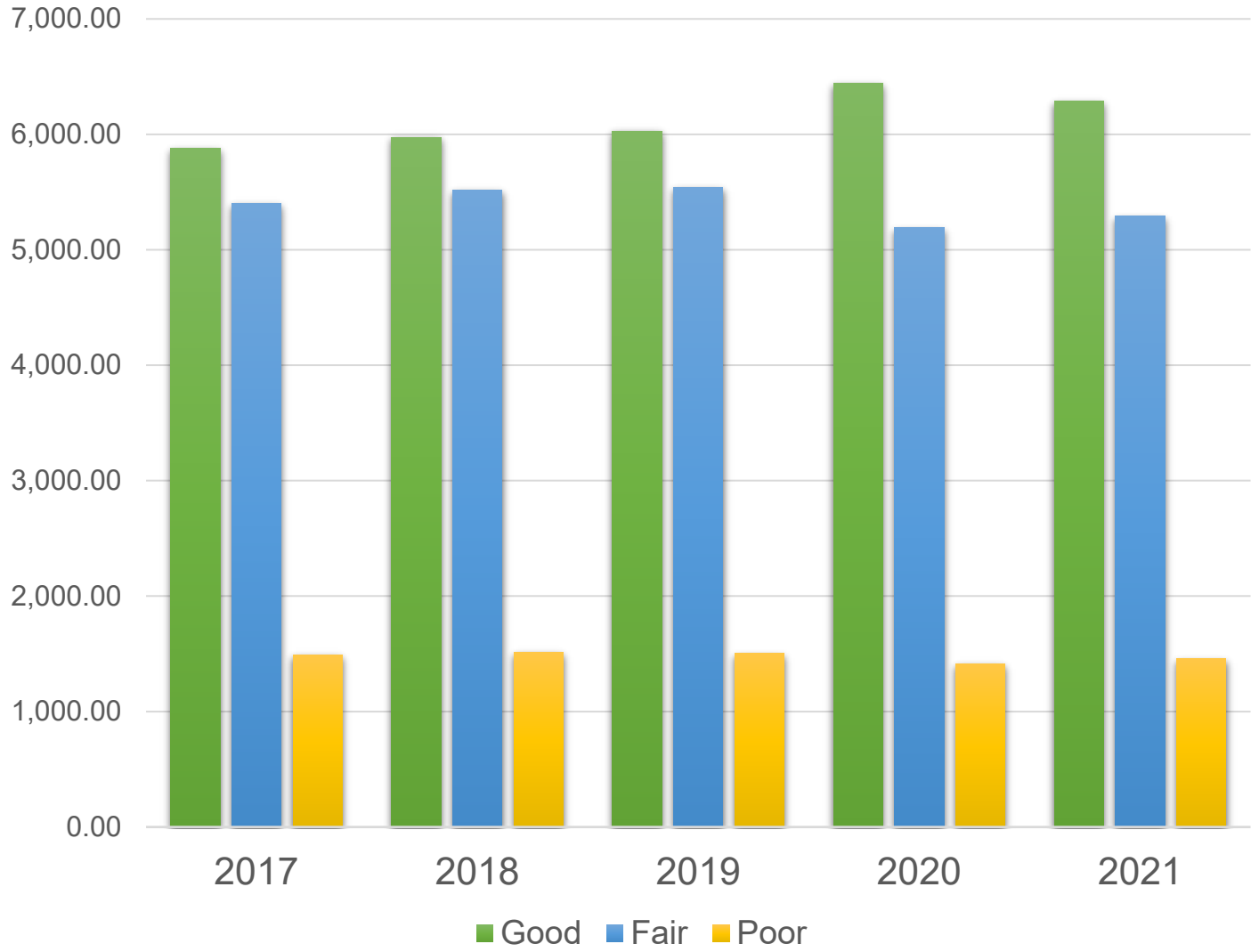
Existing Conditions – Truck Operations

- Agriculture is major industry and farm equipment with different axle ratios travels local roads and can require out of direction travel on weight limited bridges.
- Increasing transport of hazardous materials, due to growth in chemical and petroleum products
- Reliability is more important to freight planning than speed.
  - *Truck bottlenecks will be identified later in planning process.*

Existing Conditions - Pavement Condition

- Reducing poor-quality pavement is important for freight.
- In 2021, **89%** of Oklahoma roadway miles were rated in good or fair condition.
- Between 2017 and 2021, the amount of roadway miles in **good and fair condition increased** while the amount in poor condition decreased.



Source: Oklahoma DOT, 2017-2021

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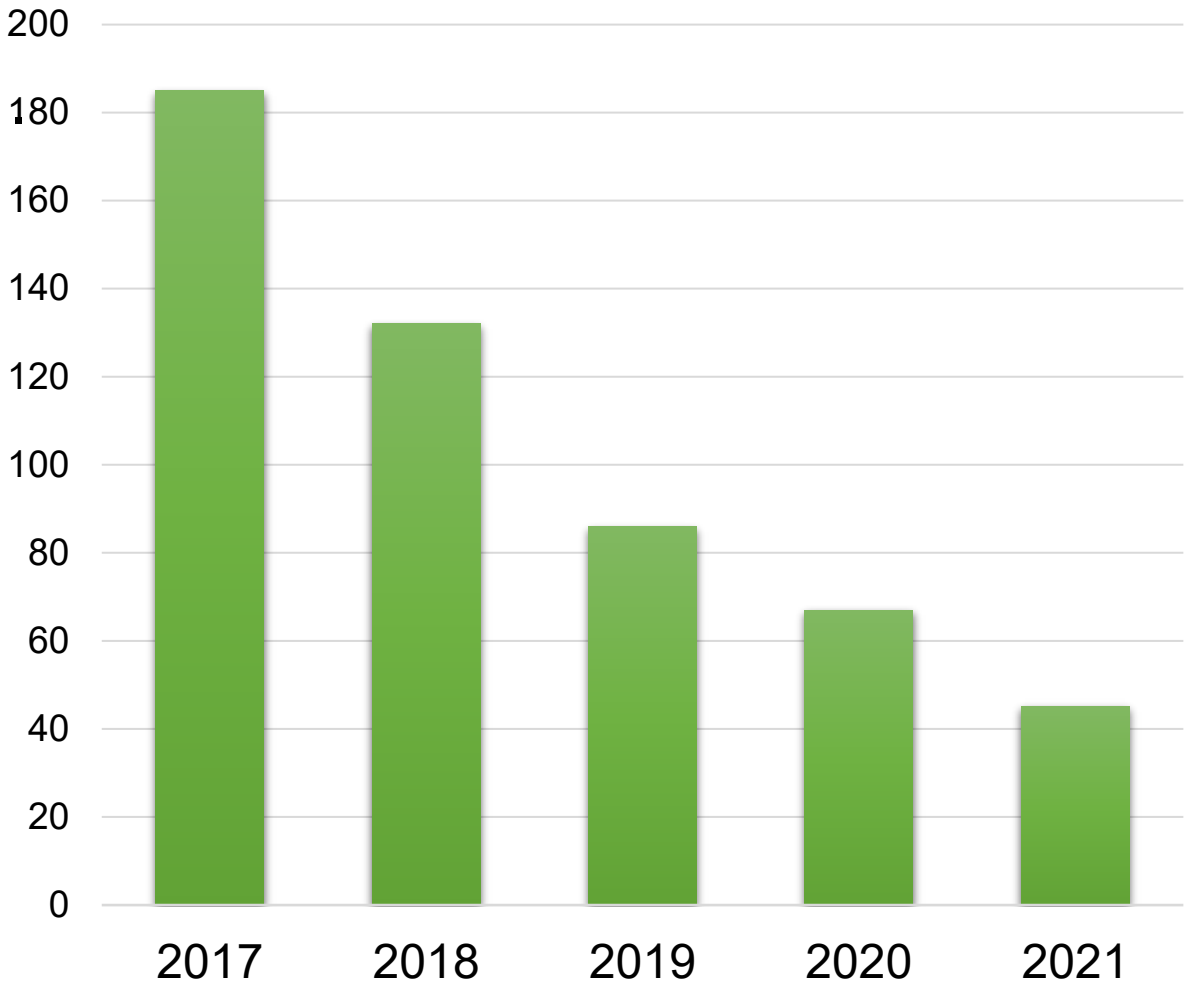
Existing Conditions – Structurally Deficient Bridges

- Weight-restricted bridges cause out-of-direction travel and impact freight efficiency.
- Oklahoma DOT has an aggressive **bridge repair program**
- The number of structurally deficient bridges **dropped** from 185 in 2017 to 45 in 2021.



Source: Oklahoma DOT, 2017-2021

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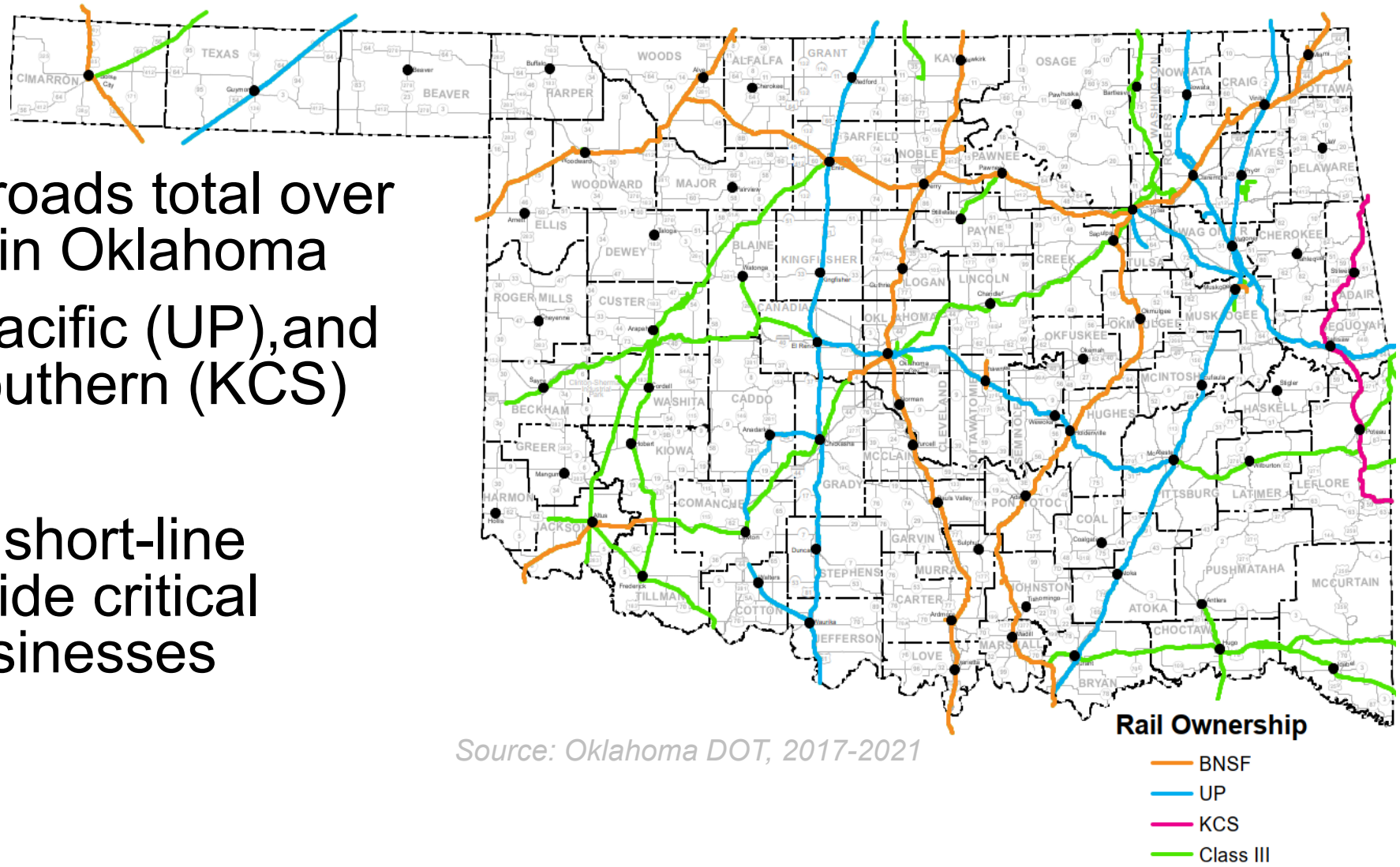
Existing Conditions - Oklahoma Rail Network

- Three Class 1 railroads total over 2,000 route-miles in Oklahoma
  - BNSF, Union Pacific (UP),and Kansas City Southern (KCS)

- Oklahoma has 18 short-line railroads that provide critical connections to businesses



Source: Oklahoma DOT, 2017-2021

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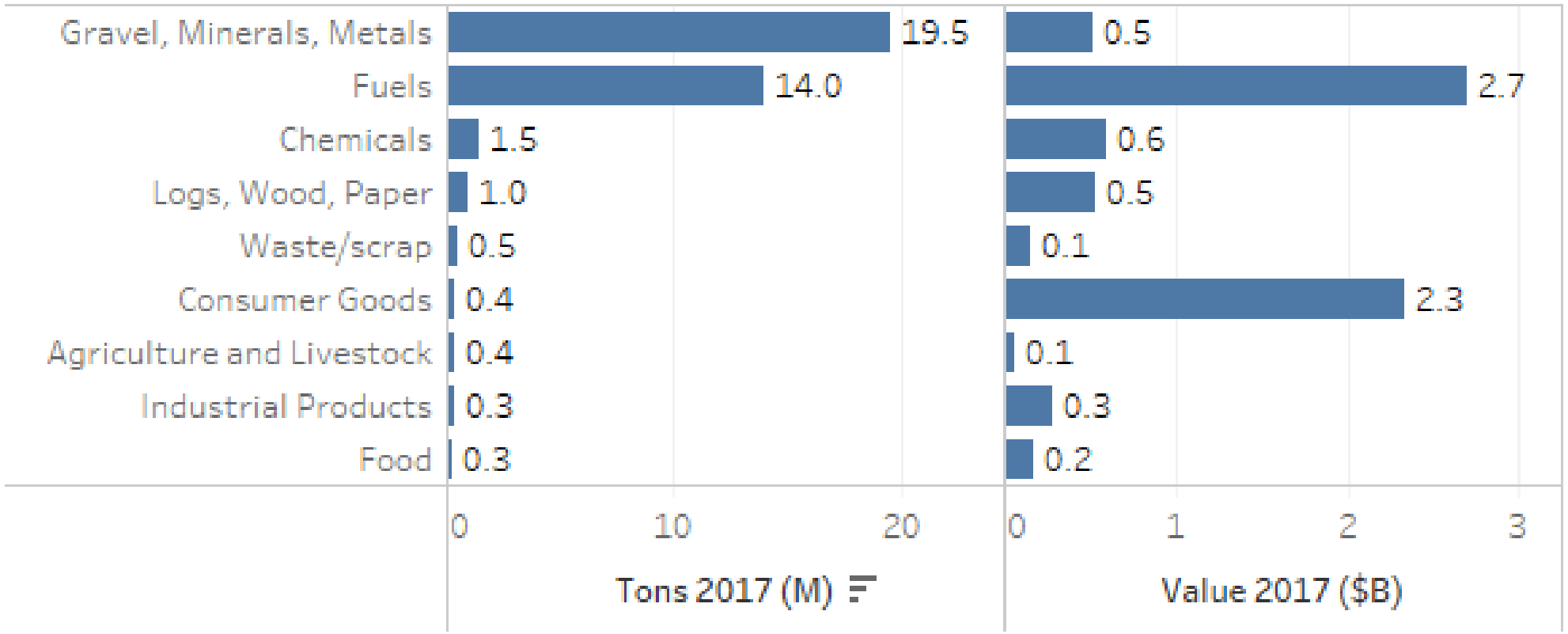
Existing Conditions - Top Oklahoma-based Commodity Groups by Rail



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Source: Freight Analysis Framework 5.3 (2017)

Existing Conditions - Freight Railroad

Preliminary Concerns and Needs

- Support short-line rail
- Rail-served industrial parks
- Highway-rail grade crossing improvements
- Elimination of bottlenecks and other impedances

BNSF Cherokee Yard in Tulsa

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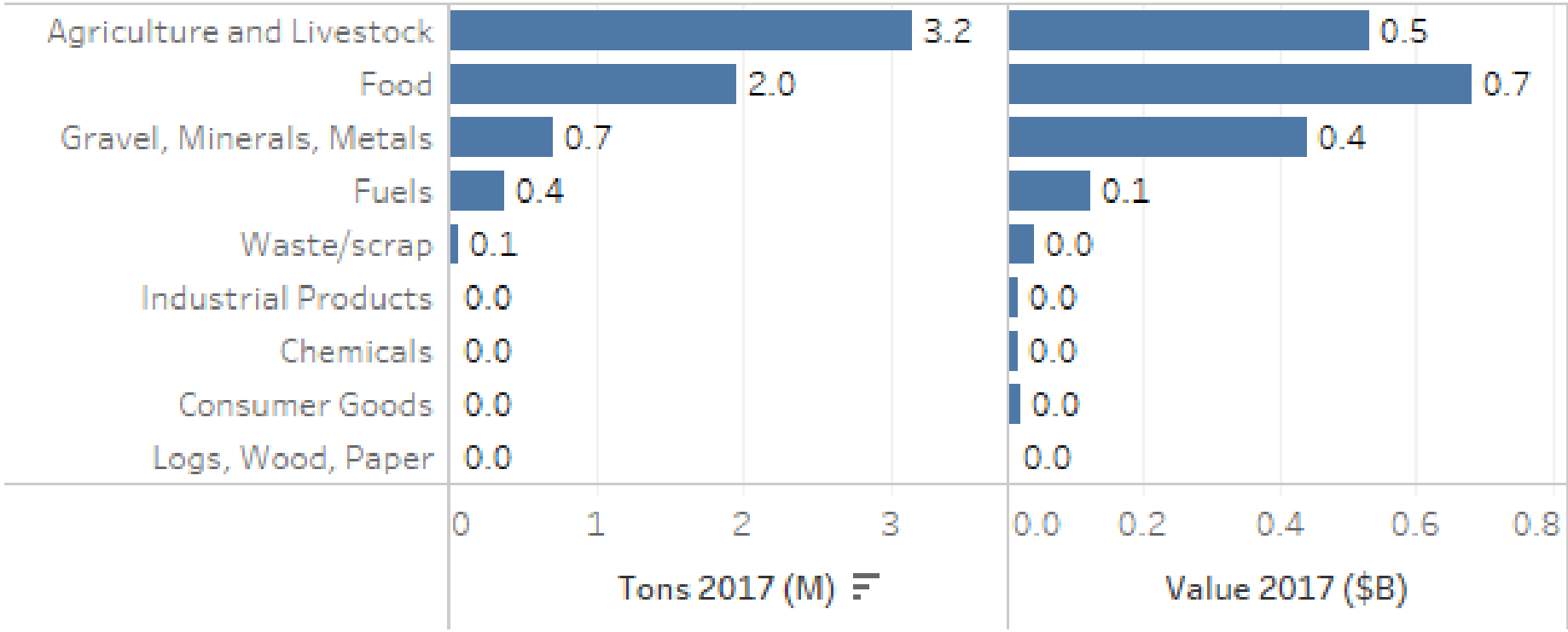
Existing Conditions - Top Oklahoma-Based Commodity Groups by Water



- McClellan-Kerr Arkansas River Navigation System connects Oklahoma to the lower Mississippi River, Great Lakes, and ocean
- Over 6.3 million tons carried by water
- Served by Tulsa Ports (Catoosa and Inola), Port of Muskogee, and Oakley's Port 33

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Source: Freight Analysis Framework 5.3 (2017)

Existing Conditions - Waterways

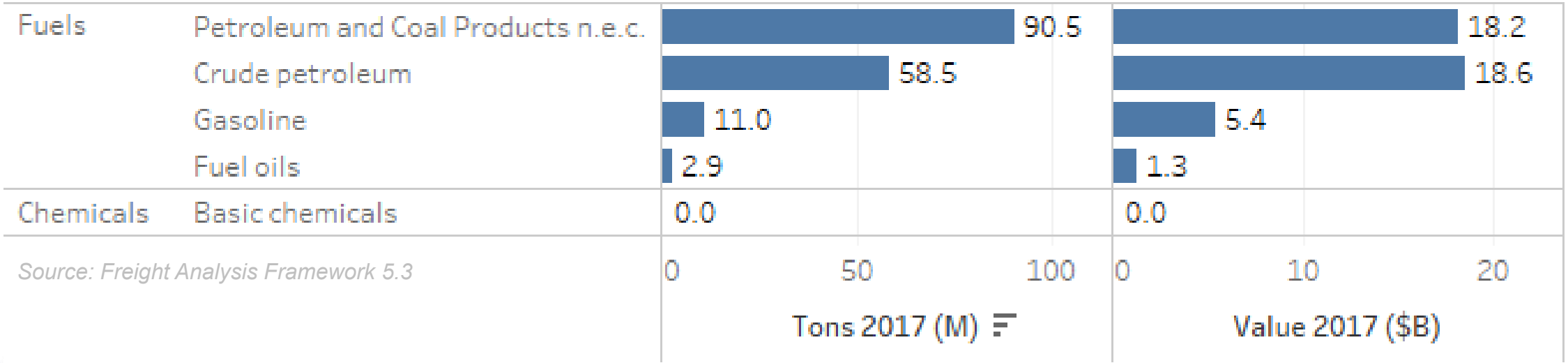
Preliminary Concerns and Needs

Tulsa Port of Catoosa

- MKARNS Maintenance Backlog
- MKARNS Deepening
- Modal Linkages and Landside Access
  - Port of Catoosa – OSOW
  - Muskogee – unit trains
  - Port 33 – connector road between original facility and Port 33 South

Existing Conditions - Air Cargo and Pipeline

- Access to reliable air cargo service is important to many businesses with high value or urgent products, including medical instruments and advanced manufacturing.
- Oklahoma has four primary commercial airports with Tulsa and Will Rogers World carrying the bulk of the air cargo.
- As one of the nation's largest producer of natural gas and crude oil, as well as petroleum refineries, the pipeline system is an essential part of Oklahoma's freight system.



Top Oklahoma-based Commodity Groups by Pipeline, 2017

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Existing Conditions - Multimodal

Preliminary Concerns and Needs

- OK relies on nearby states for intermodal terminal service.
- OK has over 40 transload terminals for truck-rail transfer for products such as aggregates, agricultural products, bulk and dimensional products.
- There are 101 grain elevators in 29 counties in OK, primarily for wheat.

Funding is needed to maintain and improve the all modes in the state transportation system.

Revenue growth is minimal, and costs are escalating.

Grade the importance of each mode

What are the biggest challenges for freight in Oklahoma?

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Truck Parking

- Assessment required by FHWA
- Truck drivers have many reasons to park, including required rest breaks and staging.
- With increases in truck traffic and reductions in public rest areas, truck parking is a top concern of truck drivers nationally.
- Inadequate truck parking in has led to safety concerns.

Reasons for Parking/Parking Location	Rest Area or Truck Stop	Shipper or Receiver Establishments	Multimodal Facilities	Undesignated Locations	Truck Terminals
Loading or unloading		x	x		
30-minute required rest break	x	x	x	x	
Overnight required rest break	x			x	
Staging	x			x	
Overnight Storage				x	x
Waiting for next load	x			x	x
Emergency	x	x	x	x	x

Source: Guerrero, S.E. et al (2022) Modeling Truck Parking Demand at Commercial and Industrial Establishments, Transportation Research Record, in-press.

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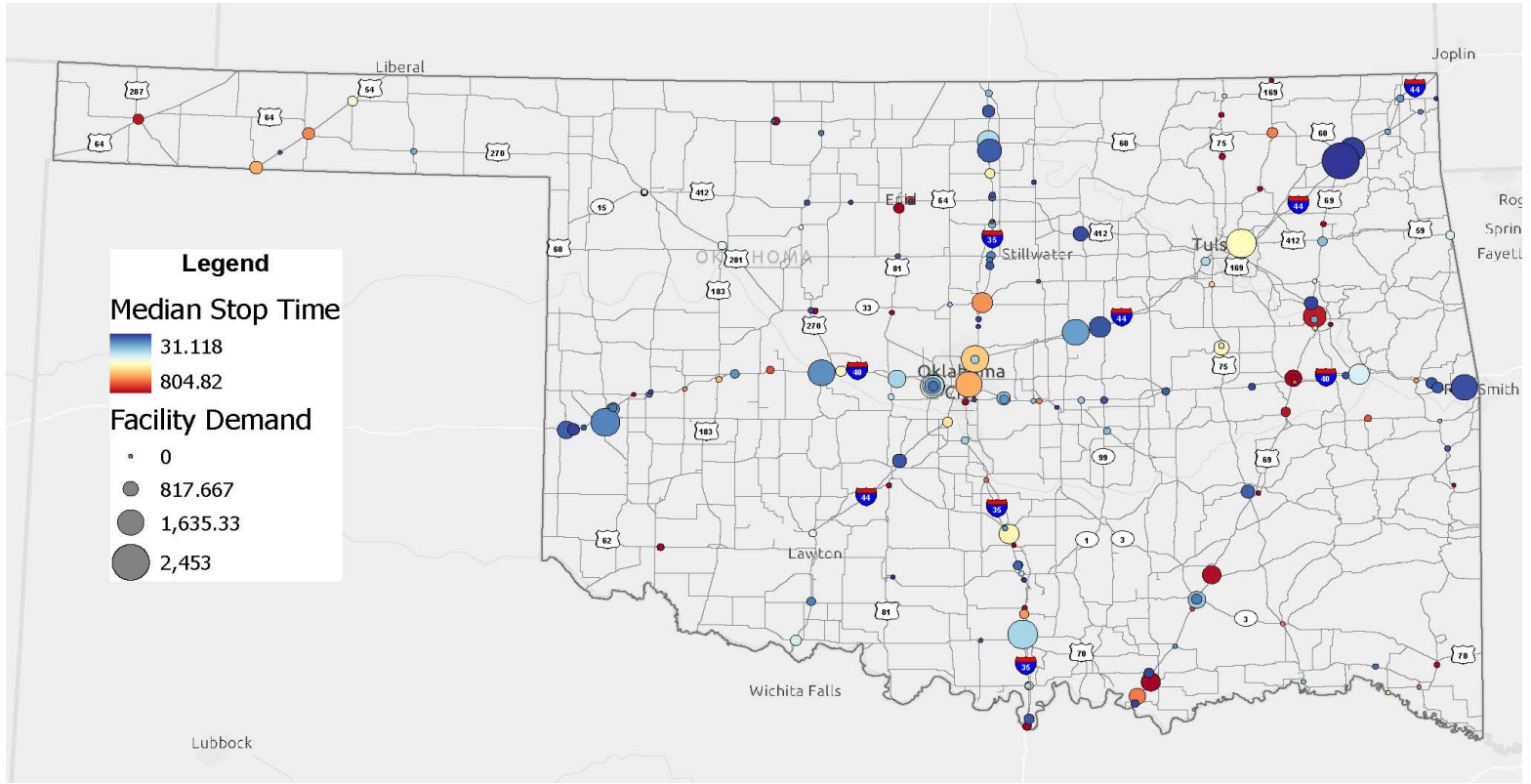
Truck Parking - Preliminary Parking Patterns

- Facilities with longer stop times used for **overnight rests** or storage
- Many large trucks stops on **rural interstates have shorter stop times**, likely due to refueling during the day
- Large facilities in **urban areas have longer stop times** due to a combination of stopping overnight or staging during the day

Median Stop Time



Source: Geotab Data, February, April, and October 2021.

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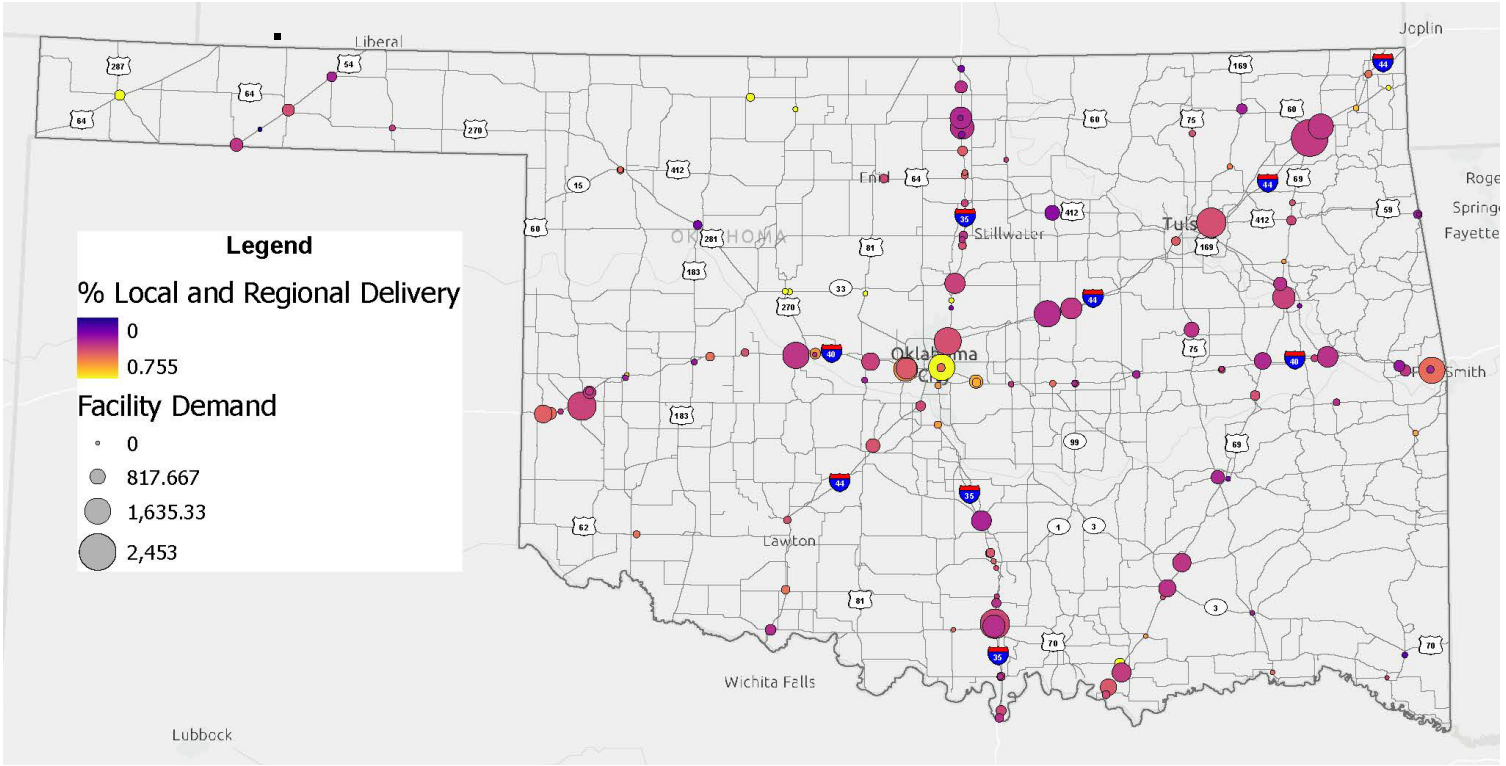
Truck Parking – Preliminary Parking Patterns

- Parking needs of local and regional trucking differ from long haul.
- Local and regional firms typically have a home-base for overnight parking.
- Local and regional delivery trucking is most common in urban areas.

Percent Local and Regional Delivery



Source: Geotab Data, February, April, and October 2021.

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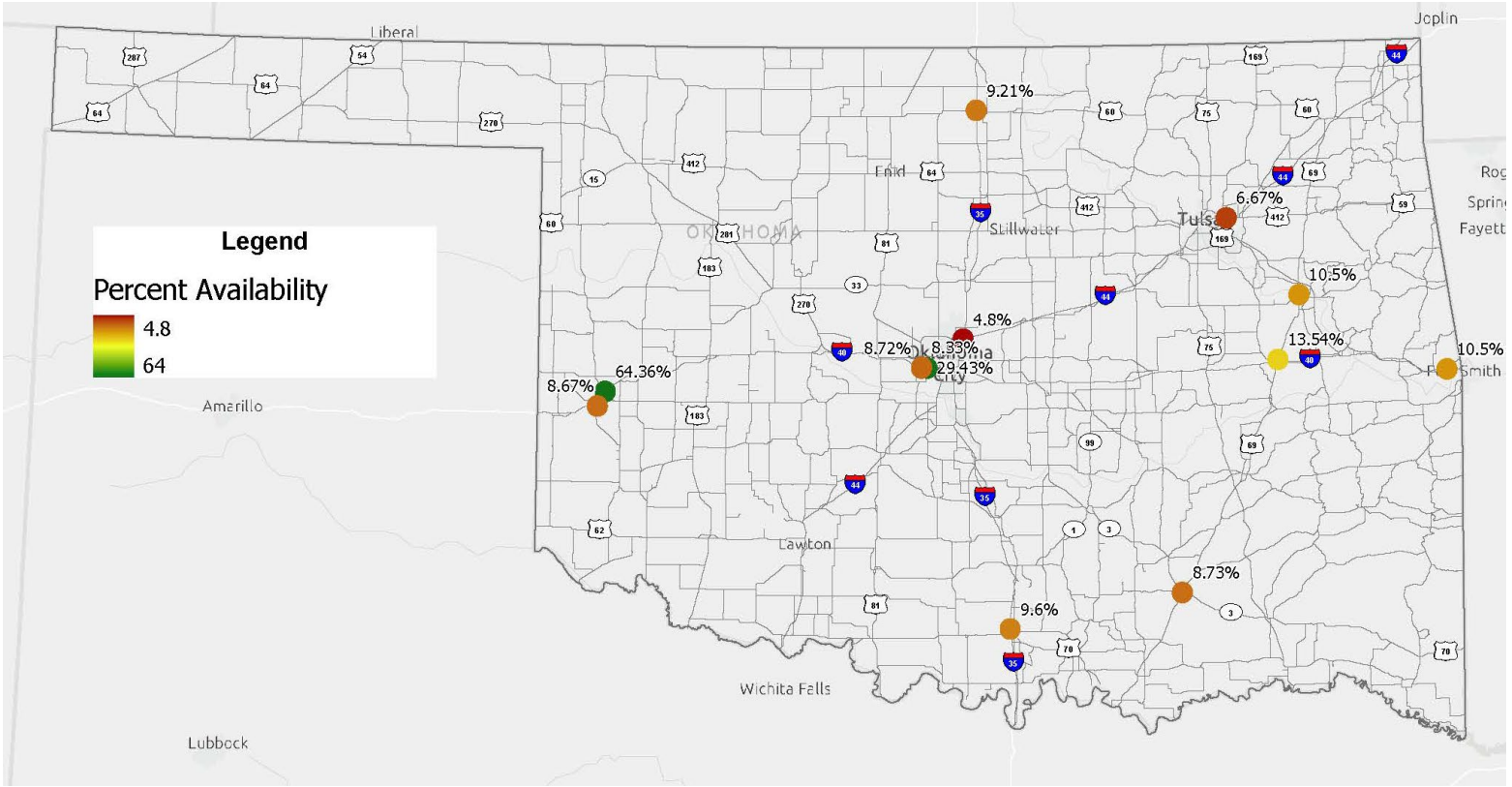
Truck Parking - Preliminary Parking Patterns

- Review of usage at 18 large stops indicates that Oklahoma may not have a statewide truck parking shortage today.
- Map shows percent availability at midnight.

Percent Availability



Source: Park My Truck Application monitored 06/06/2022 to 06/24/2022

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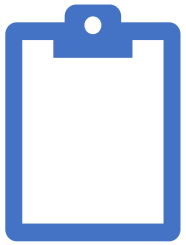
Truck Parking - Assessment

- Purpose is to identify location specific capacity issues, safety concerns, or other deficiencies, such as lack of amenities.
- Currently,
  - Examining undesignated parking
  - Conducting truck driver survey
- Assessment is ongoing



YOU CAN HELP
Help us distribute the current truck driver survey!

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Truck Parking - Assessment

Preliminary Concerns and Needs

- Undesignated parking on interstate corridor and urban areas, may require enforcement and development of smaller lots in certain areas
- Additional investments needed to accommodate future growth
- Lack of information about parking availability
- Solutions require coordination with neighboring states

What are the Top 3 truck parking issues in Oklahoma?

What are the Top 3 strategies to address truck parking needs in Oklahoma?

Wrap Up

- Chapters regarding future freight trends, needs, and investments to be developed over summer
- Next FAC meeting in September in advance of public review document

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Wrap Up

Questions? Comments?

Reach us at freightplanok@odot.org

Keep up-to-date online at

www.odot.org/2023-2030FreightPlan

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