



U.S.Department of Transportation

Federal Highway Administration

Office of Freight Management and Operations
1200 New Jersey Avenue SE

1200 New Jersey Avenue SE Washington, D.C. 20590 www.ops.fhwa.dot.gov/freight 202-366-9210

# Truck Parking Capacity in the U.S.: Results from "Jason's Law" National Survey and Assessment

Office of Freight Management and Operations Federal Highway Administration

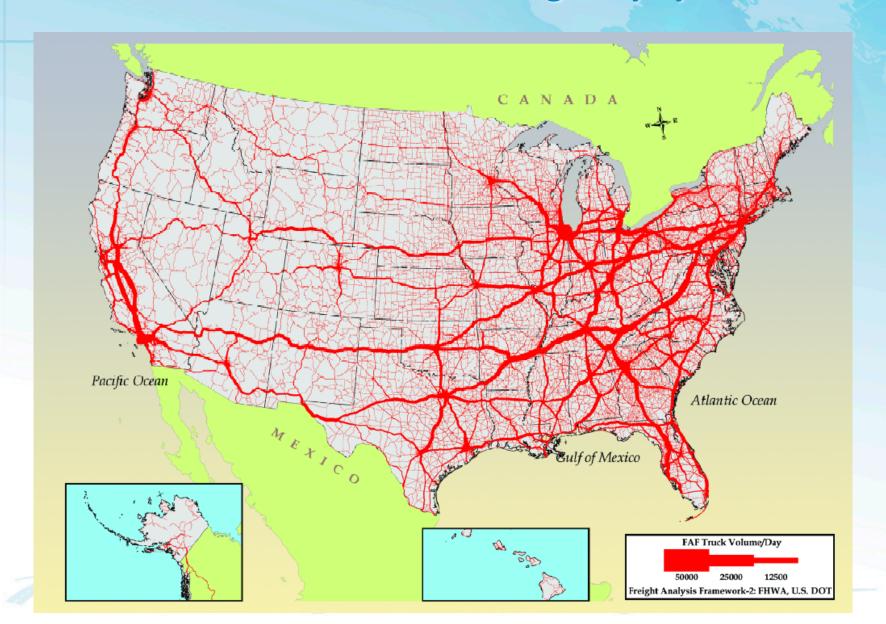
## Jason's Law

- Section 1401(c) of MAP-21, referred to as the Jason's Law Survey and Comparative Assessment, directs the United States Department of Transportation (USDOT) to:
  - Evaluate the capability of each State to provide adequate parking and rest facilities for commercial motor vehicles engaged in interstate transportation.
  - Assess the volume of commercial motor vehicle traffic in each State.
  - Develop a system of metrics to measure the adequacy of commercial motor vehicle parking facilities in each State.

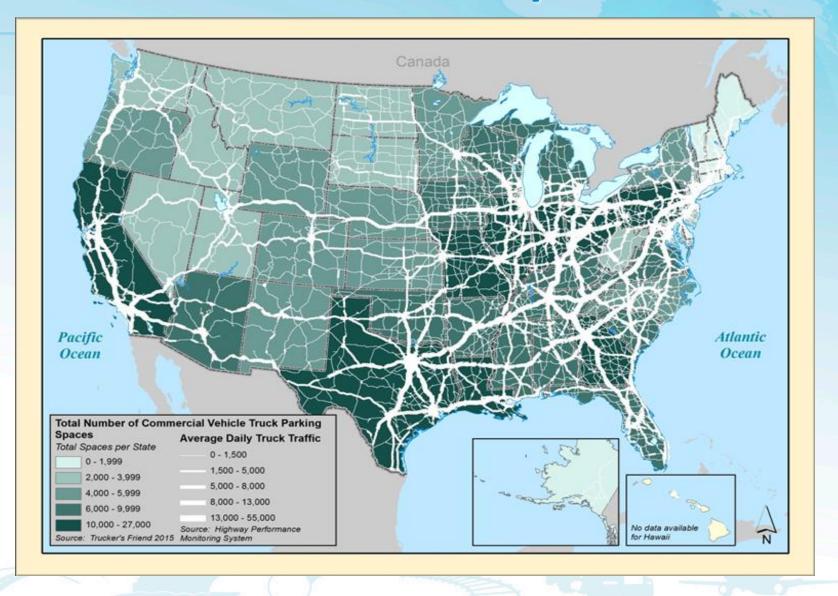
# **Key Findings**

- Truck Parking Shortages:
  - 72% of States reported having problems with truck parking shortages.
  - Greatest shortages experienced on weeknights.
  - Shortages occur during all hours, all days, and all months.
  - Capacity issues are present even in areas with high numbers of spaces relative to truck activity.
  - Shortages are most pronounced along major trade corridors and near major freight hubs.
  - Despite the lowest ratio of parking to truck activity, the survey reveals fewer spaces in the Northeast/Mid-Atlantic region.

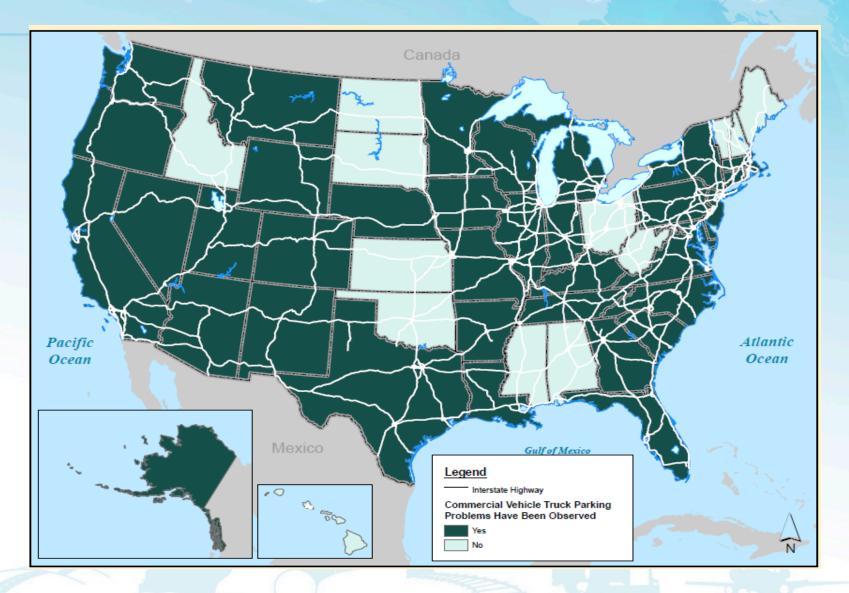
### **Truck Volumes on the National Highway System**



## **Volumes in Relation to Spaces**



## **States Reporting Truck Parking Shortages**



## **Recommended Metrics**

- The stakeholder working group and survey findings identified a comprehensive list of key factors influencing parking to measure.
- Metrics were developed for the following eight categories:
  - Parking Demand
  - Parking Supply
  - Economic Valuation
  - Safety

- Driver Demographics
- Location
- Environment
- Development

# Tier I Metrics - Ready to Implement

Metric Category(ies)	Metric	Data Source	Readiness	Scale
Demand	Truck Travel on NHS	Highway Performance Monitoring System (HPMS) Freight Analysis Framework (FAF)	Current	Corridor
	Number of Spaces, Public and Private	Inventory of states for public spaces and use of private truck stop resources for private data	Current, Requires state data input and purchase of private data	Corridor and Facility
Supply	Number of Spaces in Relation to NHS Mileage	HPMS mileage for the NHS	Current	Corridor
	Number of Spaces in Relation to VMT	HPMS VMT	Current	Corridor
	Number of Spaces in Relation to GDP by State	Bureau of Economic Analysis GDP Data	Current	Corridor

## **Tier II Metrics – Additional Data Needed**

Category(ies)	Metric	Data Resources	Readiness	Scale
Demand	Utilization for Public and Private Facilities (hourly, weekly, and monthly)	States DOT inventories and surveys; truck stop owner and operators	Data Collection Required	Facility
Demand, Driver Demographics and Needs	Parking Needs by Driver Type	Driver Surveys	Anecdotal	Facility
Demand, Driver Demographics and Needs	Parking Needs by Industry Represented	Driver Surveys	Anecdotal	Facility
Demand, Economic	Origin and Destination Information	FAF/Commodity Flow Survey (CFS)/ Use of Vehicle Probe Data	Current for FAF and CFS, Use of FPM requires additional analysis	Corridor and Facility
Demand, Safety	Inventory of Problem Locations	Interviews with state motor carrier safety staff	Current	Corridor and Facility
Economic Valuation, Demand, Supply, Development	Proximity to Industry and Highway Facilities	GIS shape files for parking locations; industrial locations; travel time data	Current and Data Collection Required	Corridor, Facility
Safety	Hours of Service Violations	State DOT and Police Records	Current	Corridor, Facility
Safety	Fatigue-Related Crashes	State DOT and Police Records	Current	Corridor
Supply	Amenities at Parking Facilities	State DOT and Truck Stop Owners and Operators Survey Data	Current and Data Collection Required	Facility
Supply	Inventory of Driver Perceived Shortages, Parking Challenges	Driver Surveys	Anecdotal	Corridor, Facility

#### Tier III Metrics: Future Research & Development

Note: Metric Focus areas in bold italics require significant coordination with the private sector.

Category(ies)	Metric Focus	<u>Scale</u>	Readiness
Demand	Impact of Congestion on Travel Time and Resulting Driving Distance, Need for Parking	Corridor, Facility	Current and Data Collection Required – Metric Approach Needed.
Driver Demographics and Needs, Demand	Average Haul Length/ Multi-Day versus Single-Day	Corridor, Facility	Anecdotal
Driver Demographics and Needs, Demand	Use of Technology to Determine Parking Availability	Corridor, Facility	Anecdotal
Economic Valuation, Development	Return on Investment for Parking Development	Facility	Data Collection Required
Economic Valuation, Development	Optimization of Return on Investment	Facility	Data Collection Required
Economic Valuation, Development	Business Locations, Industrial Land Uses	Corridor, Facility	Data Collection Required
Economic Valuation, Development	Employment by Industry for Truck Facilities	Corridor, Facility	Data Collection Required
Economic Valuation, Development	Diesel Fuel Sales	Facility	Current - Metric approach needed
Economic Valuation, Development, Location Dynamics	Parcel Size and Zoning	Facility	Data Collection Required
Environment, Development	Environmental Impact Metrics (i.e. Air Quality/Idle Reduction, Parking Development)	Corridor, Facility	Data Collection Required
Safety	Crime Reports by Location	Facility	Data Collection Required
Safety	Reported Parking Violations on NHS	Corridor	Data Collection Required
Safety	Fixed-Object Crashes with Trucks on Highway Shoulders	Corridor	Data Collection Required

## Conclusion

- Truck parking capacity is a problem in all states though state awareness varies significantly.
- Consistent, continued measurement is important to provide data to understand dynamic truck parking needs and whether the situation is improving or not.
- Truck Parking analysis is an important component of State and MPO freight plans, as well as regional and corridorbased freight analyses.
- Public and private sector coordination is critical for both analyses and project development to address long-term truck parking needs.

# **Recommended Next Steps: Federal**

- Develop new approaches and data to support advanced measurement of truck parking and inclusion in transportation planning.
- Educate and provide outreach with MPOs, State Highway Agencies, and private sector stakeholders to ensure that all partners are aware of the opportunities to advance projects and the eligibility of these projects for funding under the Federal-Aid Highway Program.
- Continue to support ITS-based solutions that improve truck drivers' awareness of parking availability.
- Investigate P-3 approaches that involve private sector partners in the development of truck parking investments.

## **Recommend Next Steps: State and Region**

- Begin or continue coordination with other public sector and private sector stakeholders to identify and prioritize shortterm, emerging, and long-term solutions.
- Expand dialogue and coordination to the corridor level with neighboring counties, states, and countries where necessary.
- Improve data collection and analysis.
- Update plans and investment programs to include truck parking solutions, both for facilities and technology for truck parking information services.
- Work with law enforcement to educate and train them about improved use of safe and available spaces.

## **For More Information**

**Nicole Katsikides** 

Federal Highway Administration

Office of Freight Management and Operations

202-366-6993

Nicole.katsikides@dot.gov

Google: FHWA Jason's Law Survey