

EIGHT COUNTY FREIGHT STUDY

DUBUQUE MPO & BHRC

ILLINIOS DEPARTMENT OF TRANSPORTATION FREIGHT COUNCIL MEETING

APRIL 25TH, 2019

Project Partners.



www.cpcstrans.com

FINAL



Eight-County Freight Study

Summary Report

Prepared for:

East Central Intergovernmental Association
Blackhawk Hills Regional Council

Prepared by:

CPCS Transcom Inc.

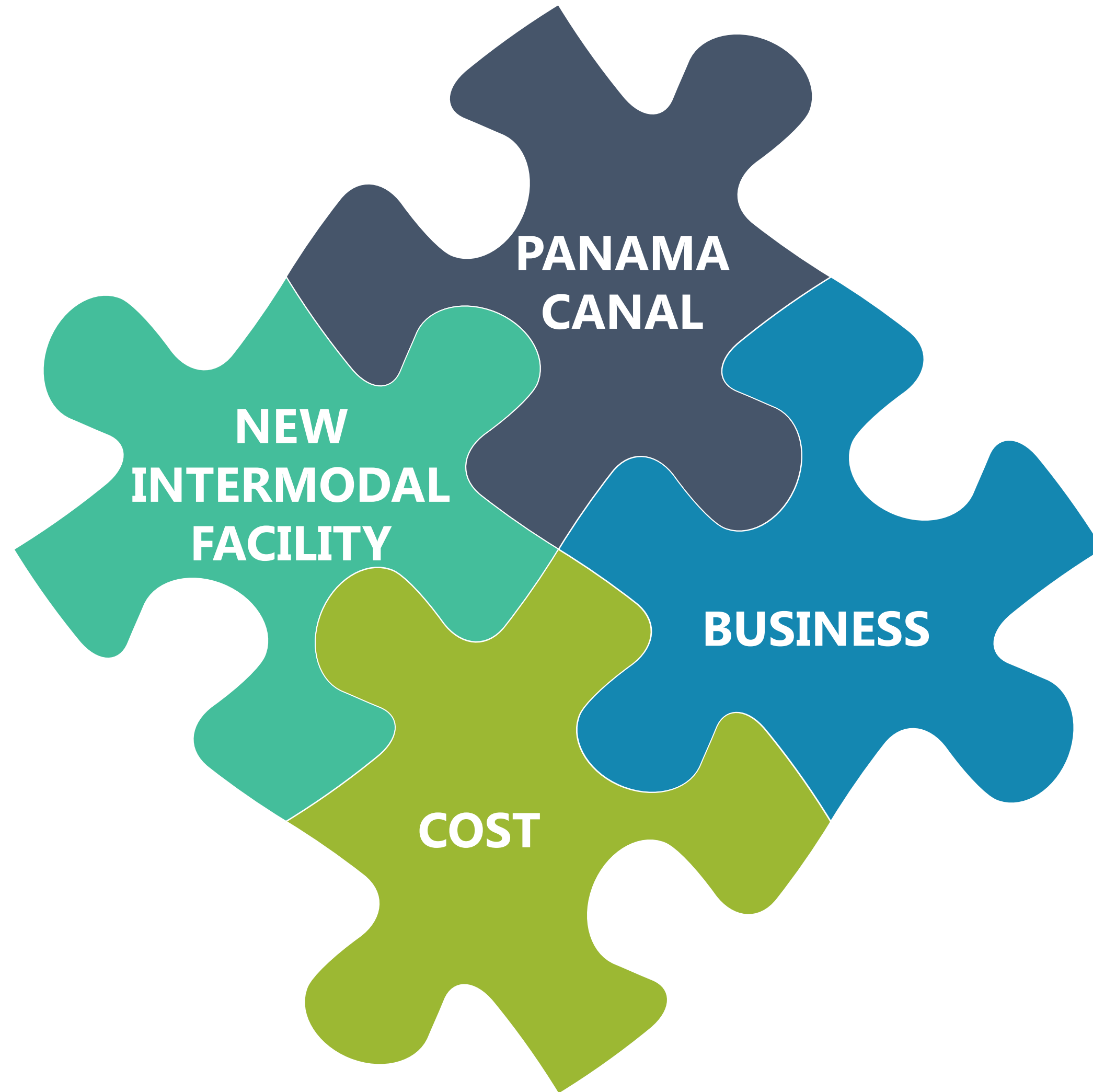
In association with:

WSP | Parsons Brinckerhoff
American Transportation Research Institute

Solutions for
growing economies

CPCS Ref: 16153
May 24, 2018

REASONS FOR A FREIGHT STUDY



01

PANAMA CANAL

Increase in freight traffic due to improvement to Panama Canal.

02

NEW INTERMODAL FACILITY AT CEDAR RAPIDS

Impact of new intermodal facility on the region.

03

BUSINESS RETENISION & ATTRACTION

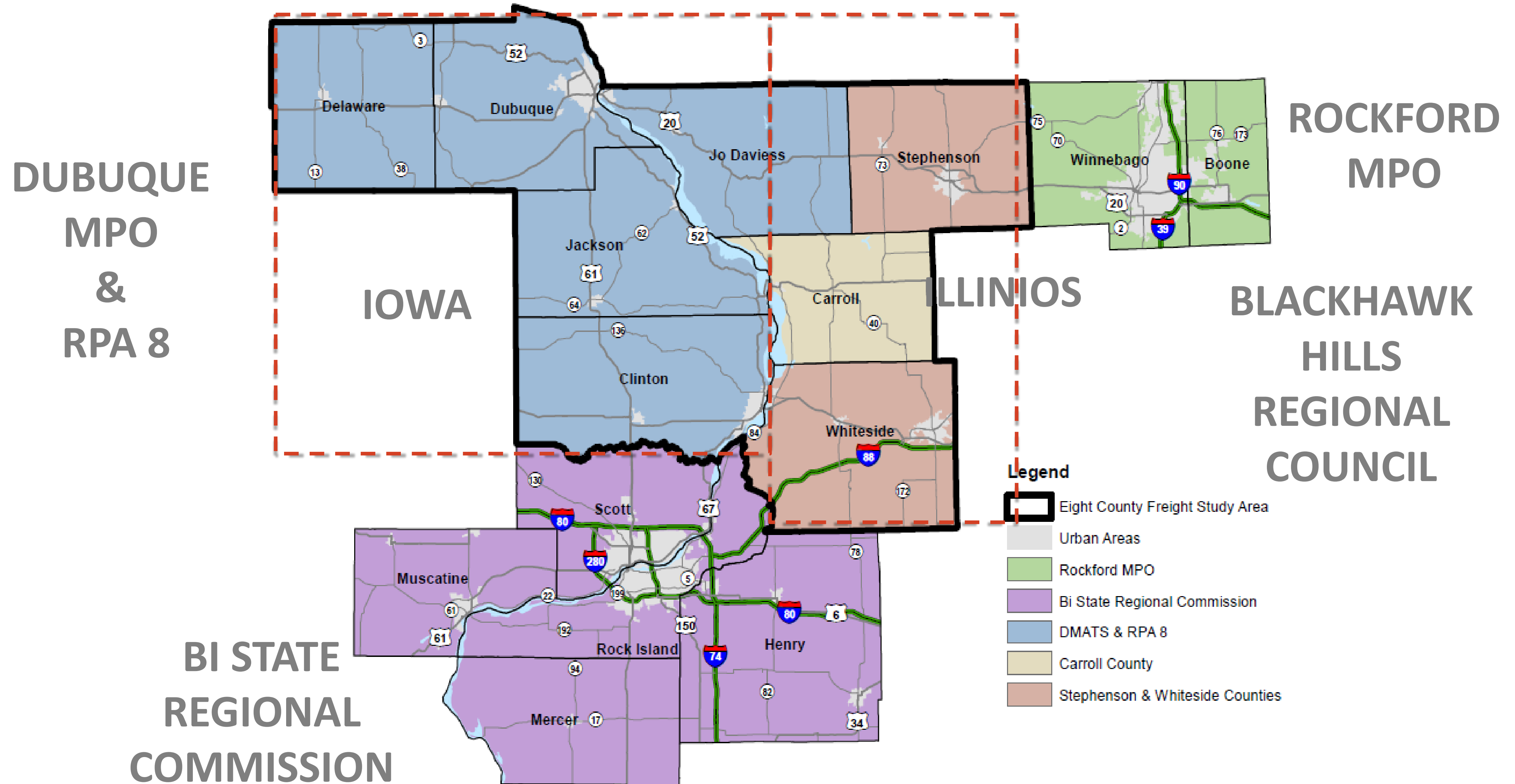
Retain existing businesses that highly rely on freight and attract new ones

04

COST OF TRANSPORTATION

How can transportation costs be reduced for business within the region

ESTABLISHING STUDY REGION



EIGHT COUNTY FREIGHT STUDY

LOCAL ECONOMY

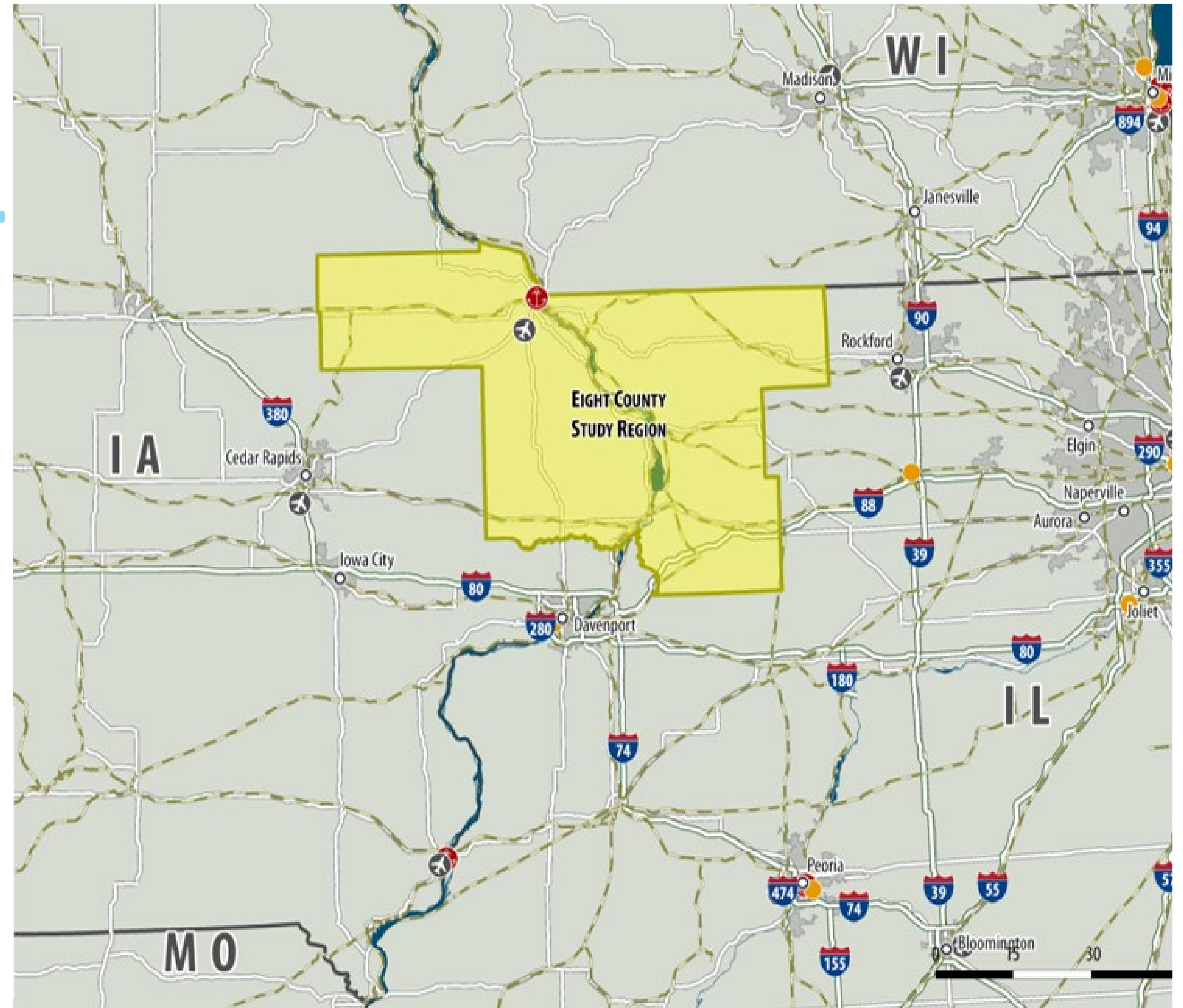
MULTIMODAL

INVESTMENTS

EFFICIENCIES

OPPORTUNITIES

The Eight-County Region is near the heart of significant US manufacturing and agricultural activity and includes the counties of Carroll, Jo Daviess, Stephenson, and Whiteside in Illinois, and Clinton, Delaware, Dubuque, and Jackson in Iowa.

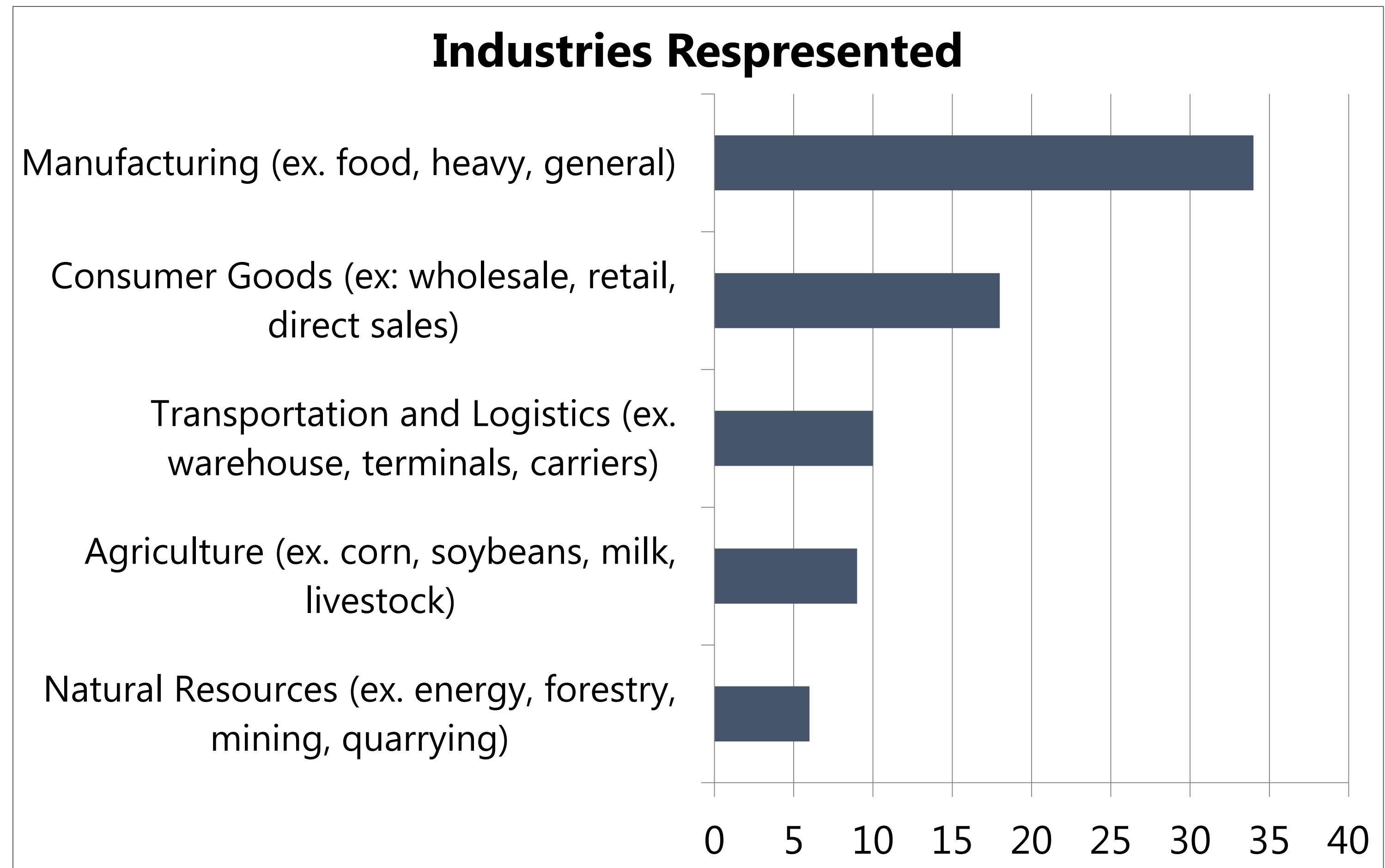


INDUSTRY RESPONSE FROM PRIVATE SECTOR



96 company
responses

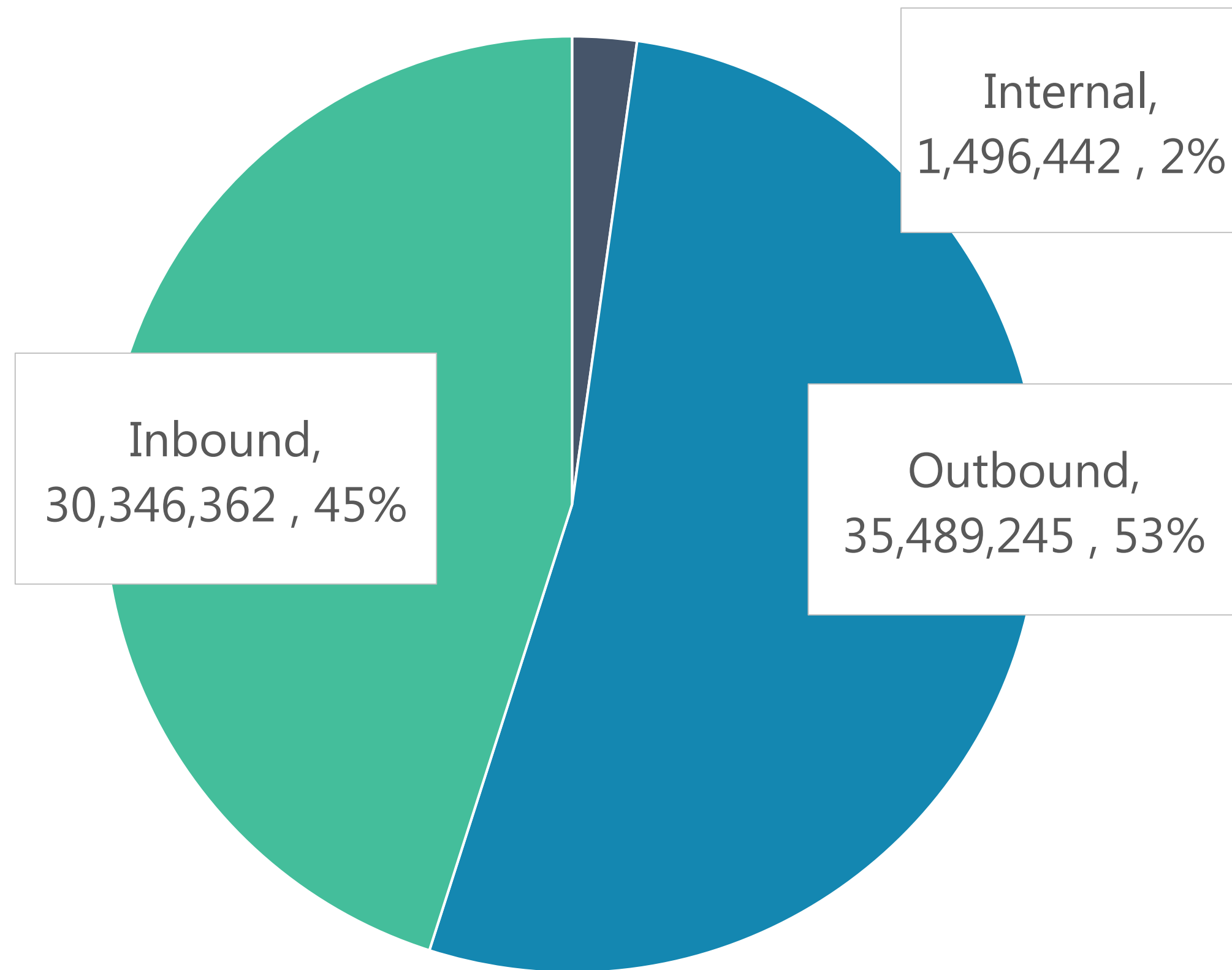
200 one-on-one
interviews



TONS & VALUES BY DIRECTION (Year 2014)

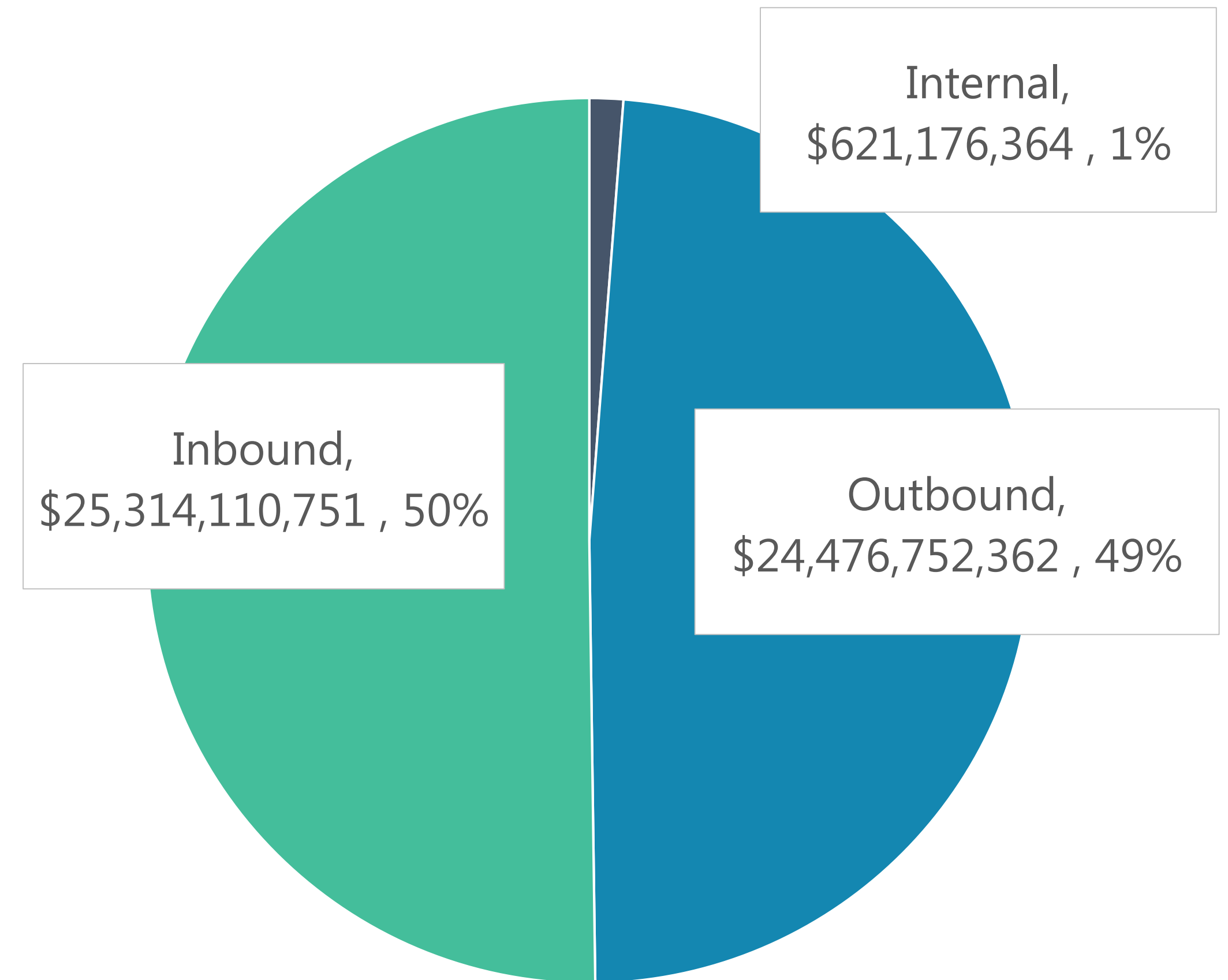
Study region has fairly “balanced” freight flow

Tons by Direction
Total = 67.3 Million tons



Source: WSP Analysis of FHWA Freight Analysis Framework version 4 (FAF4) data. Preliminary.

Value by Direction
Total = \$50.4 Billion

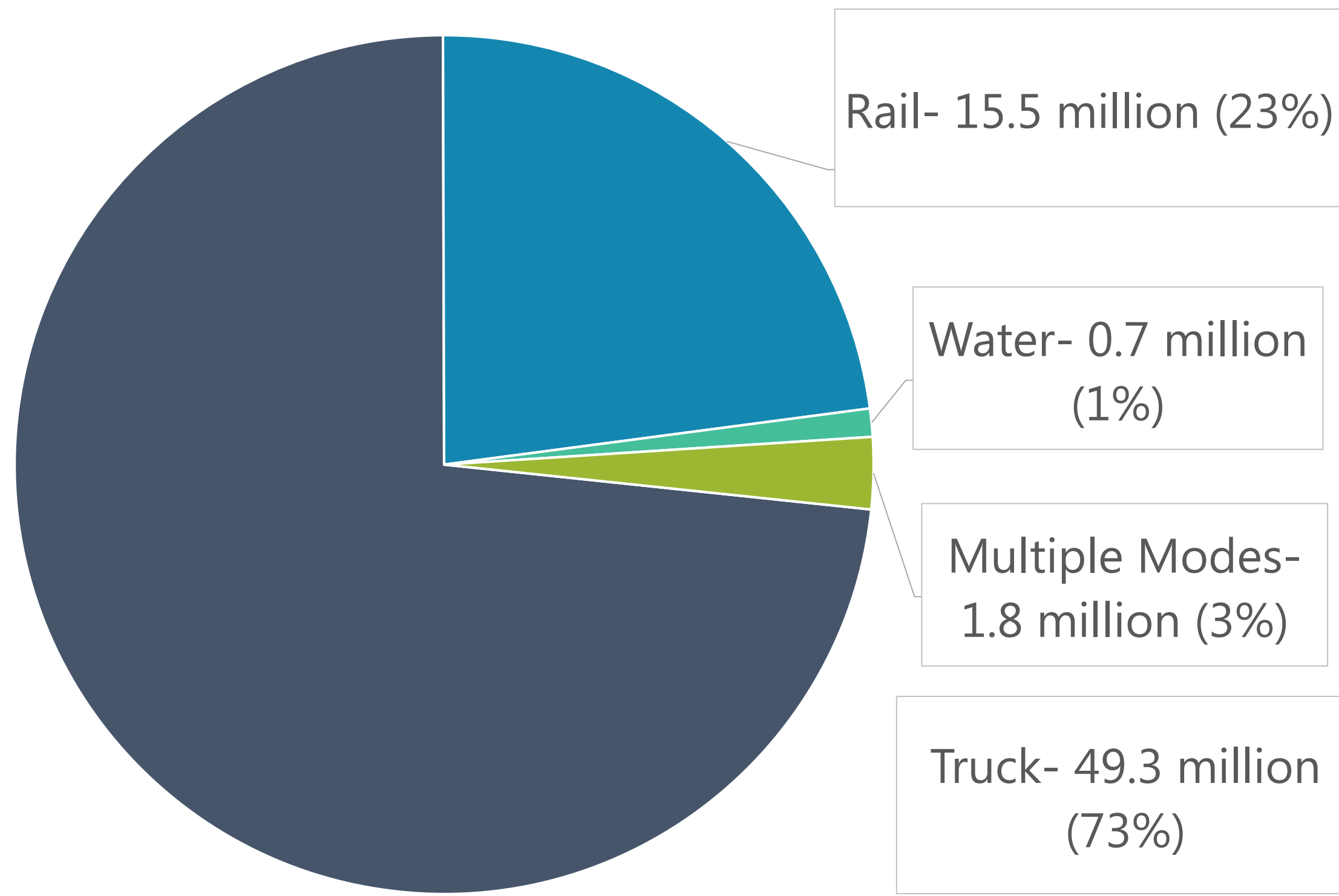


Source: WSP Analysis of FHWA Freight Analysis Framework version 4 (FAF4) data. Preliminary.

TONS & VALUES BY MODE (Year 2014)

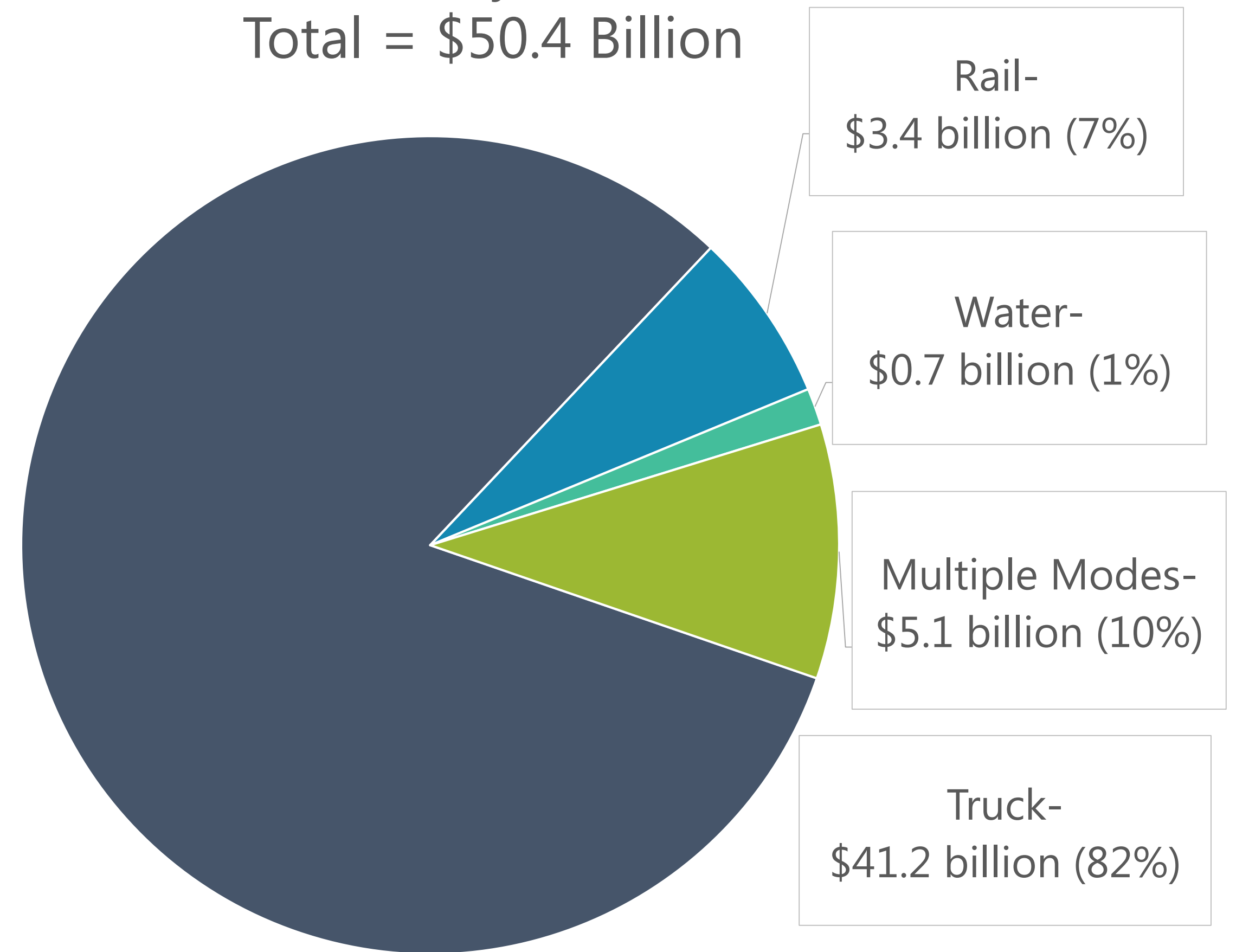
Trucks represent 73% of tonnage and 82% of value, indicating trucks are used to carry higher-value, lower weight manufactured goods

Tons by Mode
Total = 67.3 Million tons



Source: WSP Analysis of FHWA Freight Analysis Framework version 4 (FAF4) data. Preliminary.

Value by Mode
Total = \$50.4 Billion

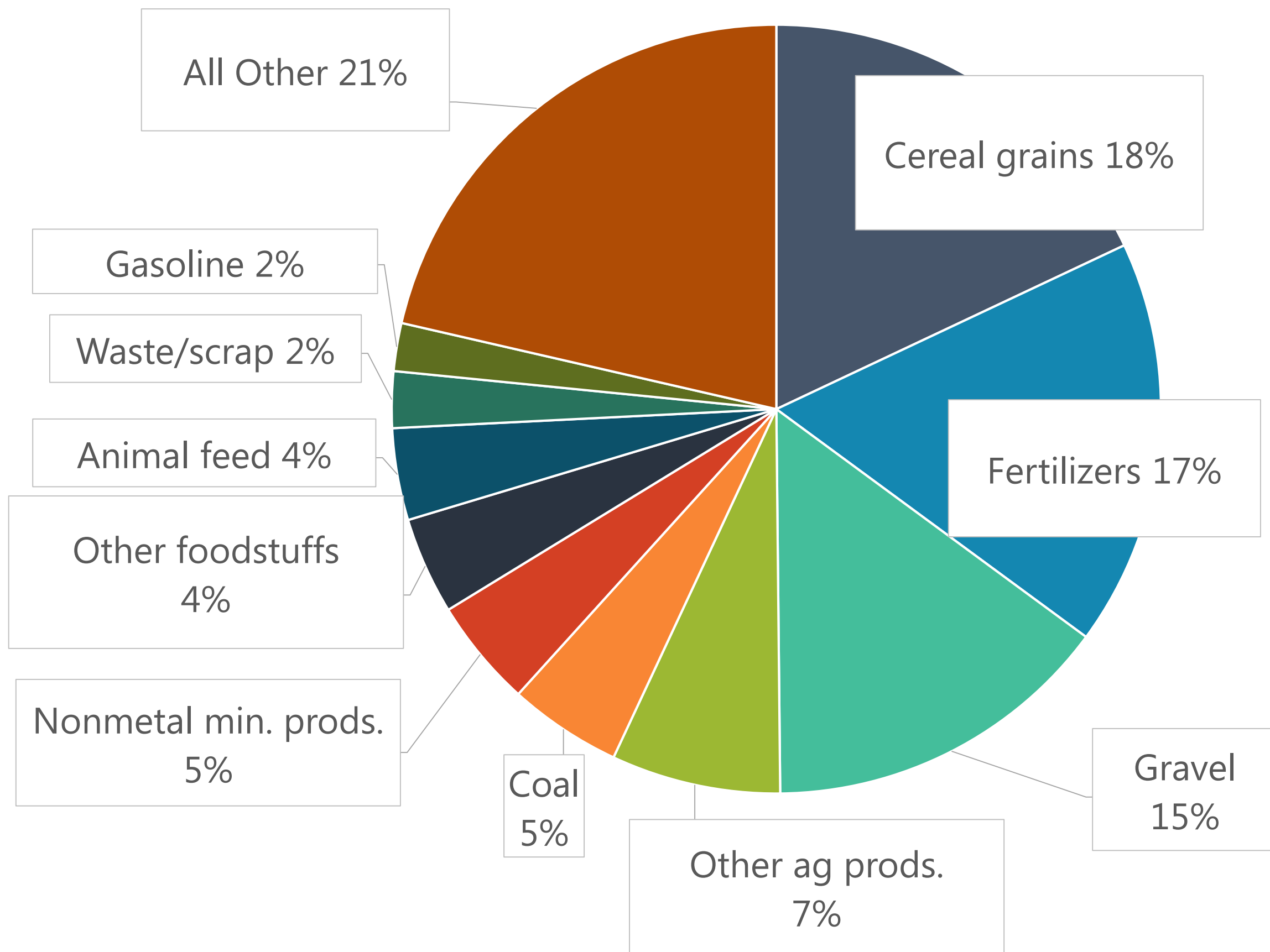


Source: WSP Analysis of FHWA Freight Analysis Framework version 4 (FAF4) data. Preliminary.

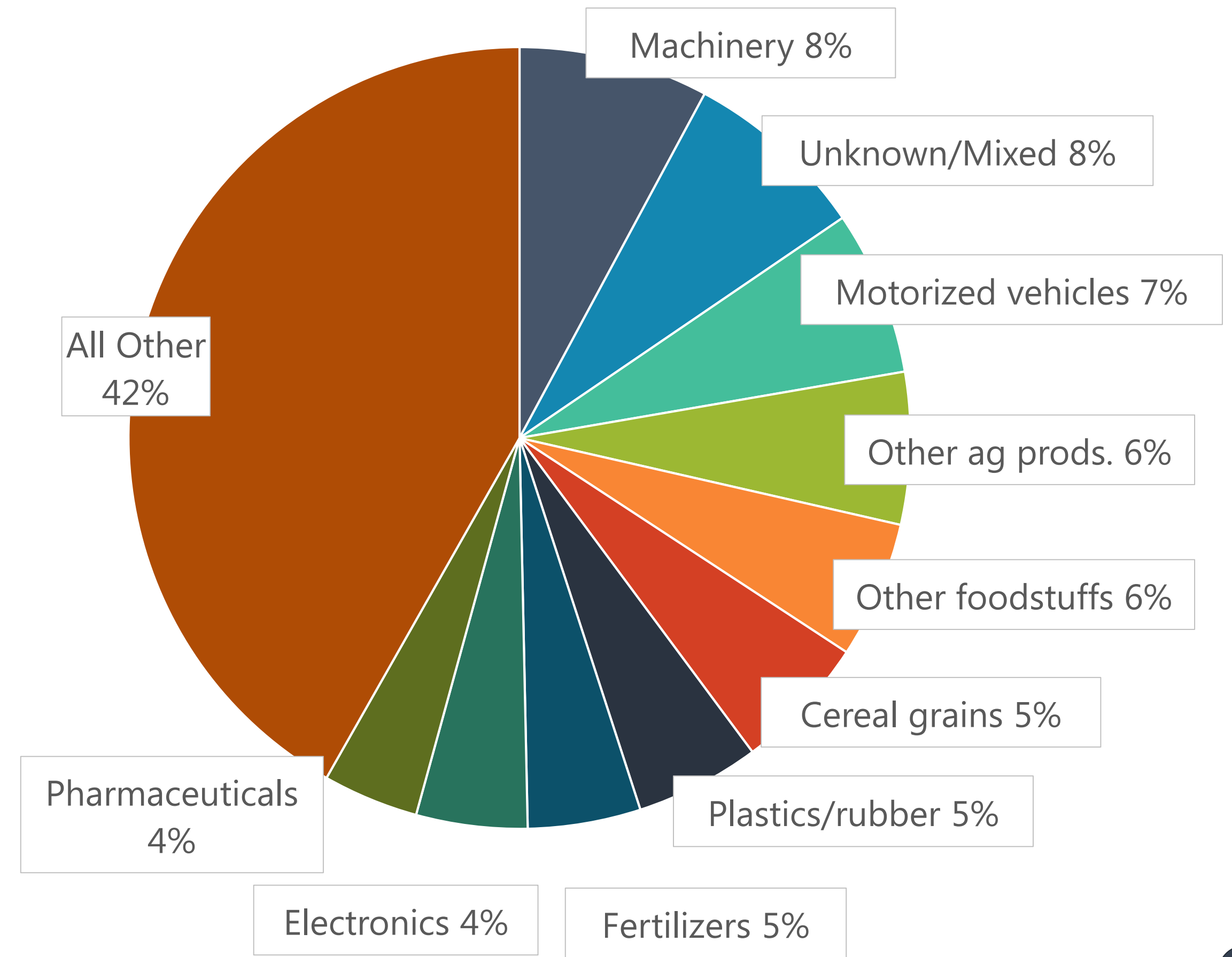
TONS & VALUES BY COMMODITY (Year 2014)

Top tonnage and value commodities are linked to the Region's key industries – manufacturing and agriculture

Tons by Commodity
Total = 67.3 Million tons



Value by Commodity
Total = \$50.4 Billion



KEY FINDINGS

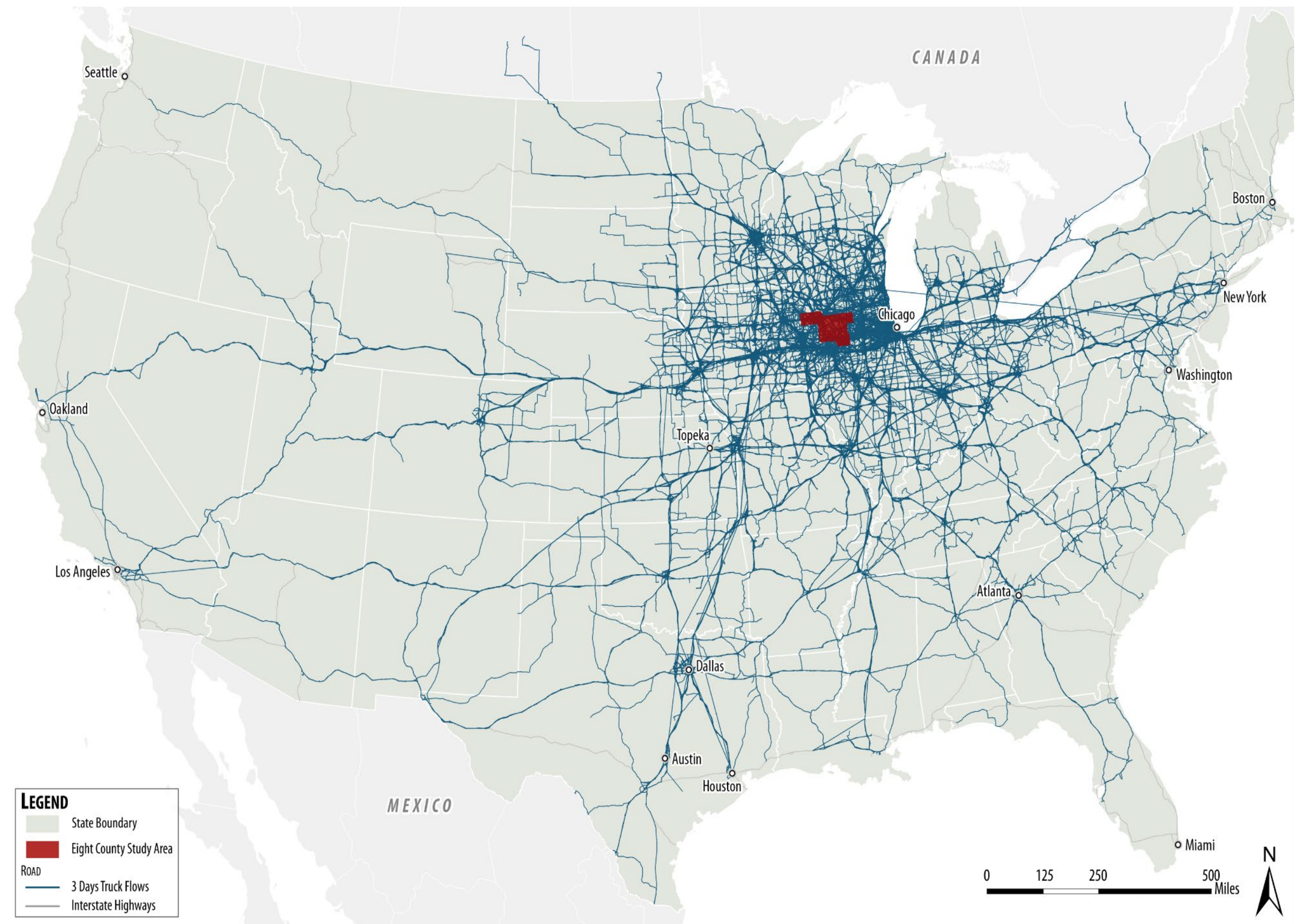
Less usage of River

	Eight County Region 2014 Tonnage Share	US Total Tonnage Share (excluding Air, Pipeline, Other)	Eight County “Modal Quotient”
Truck	73.3%	79.6%	0.92
Rail	23.0%	12.4%	1.85
Multiple	2.7%	3.1%	0.88
Water	1.1%	5.0%	0.21

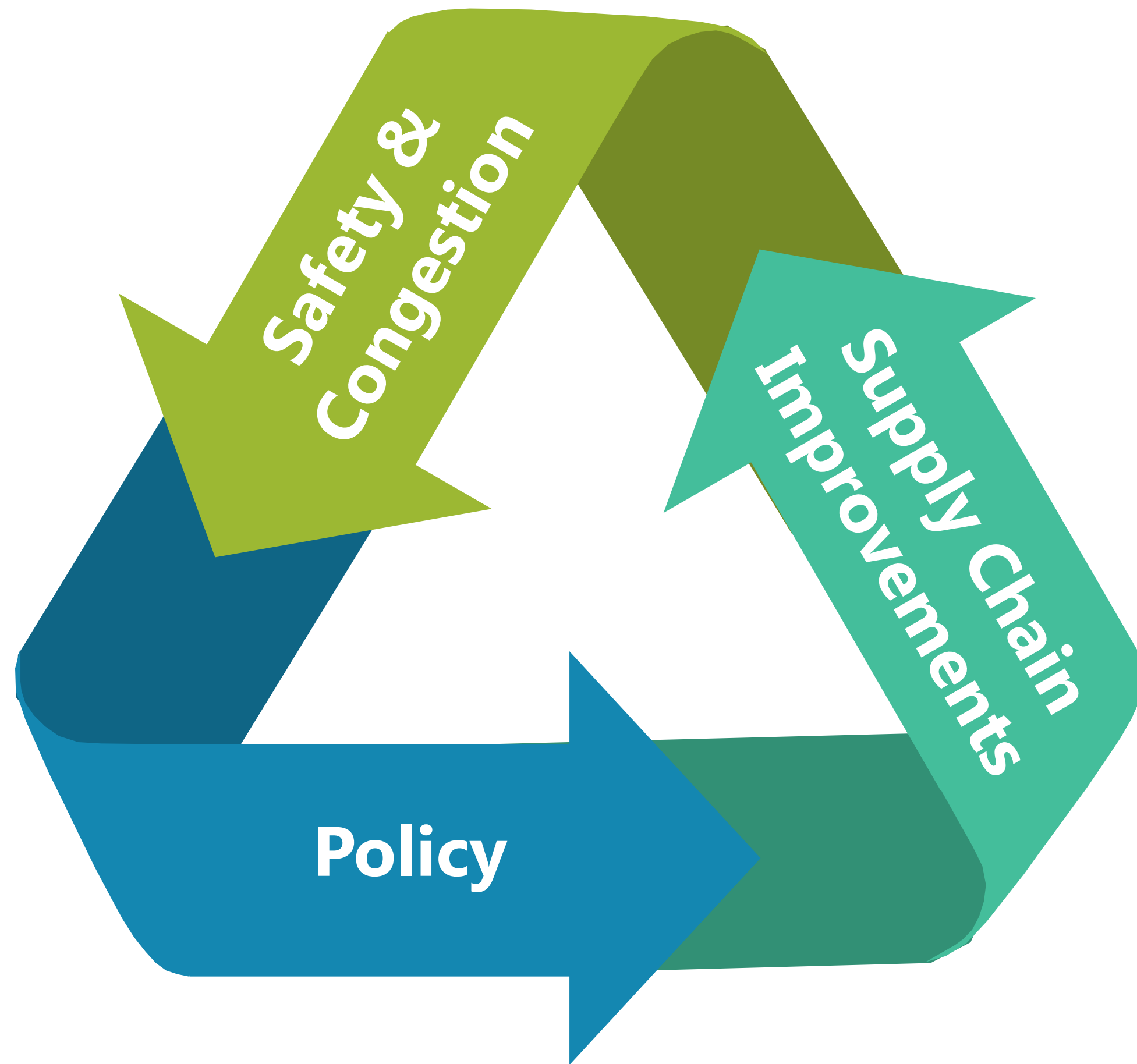
3% of shift from truck to water will double
water ton miles

	Rate per Ton-Mile	Ton-Miles, 2014	Estimated Transportation Cost
Truck	\$ 0.108	13,056,538,943	\$ 1,410,106,206
Rail	\$ 0.083	6,159,485,019	\$ 511,237,257
Multiple	\$ 0.097	1,012,159,822	\$ 98,179,503
Water	\$ 0.050	385,064,490	\$ 19,253,224
Total			\$ 2,038,776,190

Within a 3-day truck drive from the region



PROJECT DEVELOPMENT PROCESS



**SAFETY & CONGERSTION
IMPROVEMENTS TO US
20, US 30, US 151/61 ETC.**

1

POLICY PROJECTS

2

**SUPPLY CHAIN
IEI BARGE TERMINAL ETC.**

3

MAJOR PROJECTS

1

US 20 IMPROVEMENTS (Safety)

The study identified the need for safety improvements on the US Highway 20 corridor from Dubuque to Freeport.

2

US 20 IMPROVEMENTS MPO (Safety / Congestion)

The study identified the need for safety and congestion improvements within in the MPO.

3

PORT EXPANSION (Supply Chain)

The study recommended improvements to exiting ports to accommodate freight from other modes.

4

US 30 IMPROVEMENTS (Safety)

The study suggested further studies of US Highway 30 from DeWitt to Cedar Rapids to accommodate future growth around the corridor.

5

REDUCE DELAY WITHIN THE MPO (Congestion)

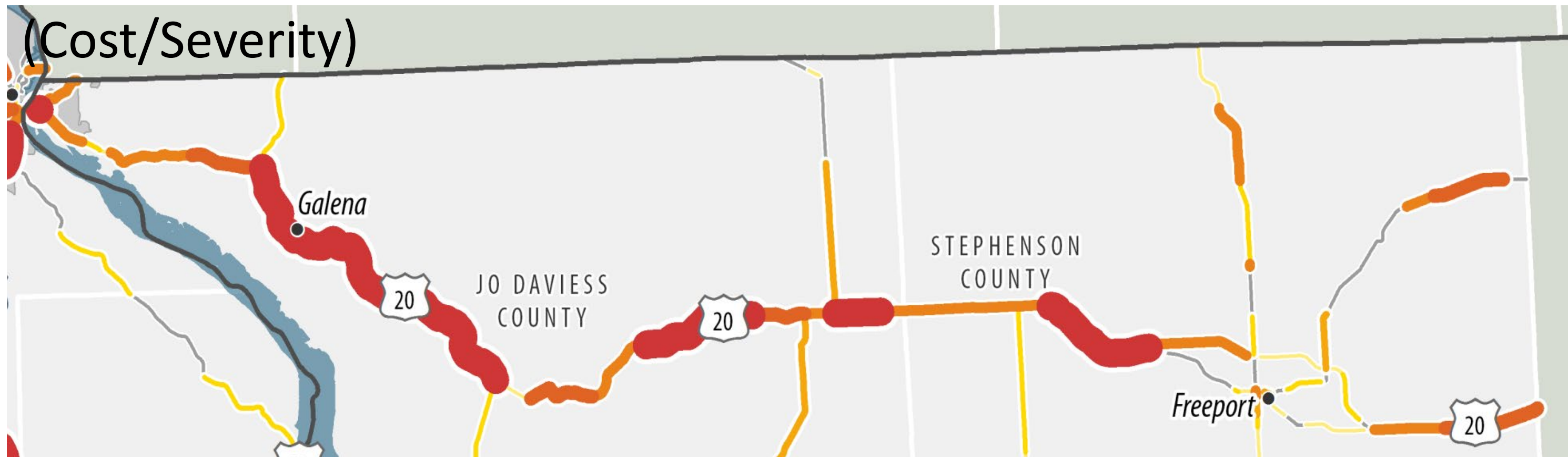
The study recommended to reduce delay on major corridors within the Dubuque MPO to accommodate freight through the region.

6

CHANGES TO REGULATIONS (Policy)

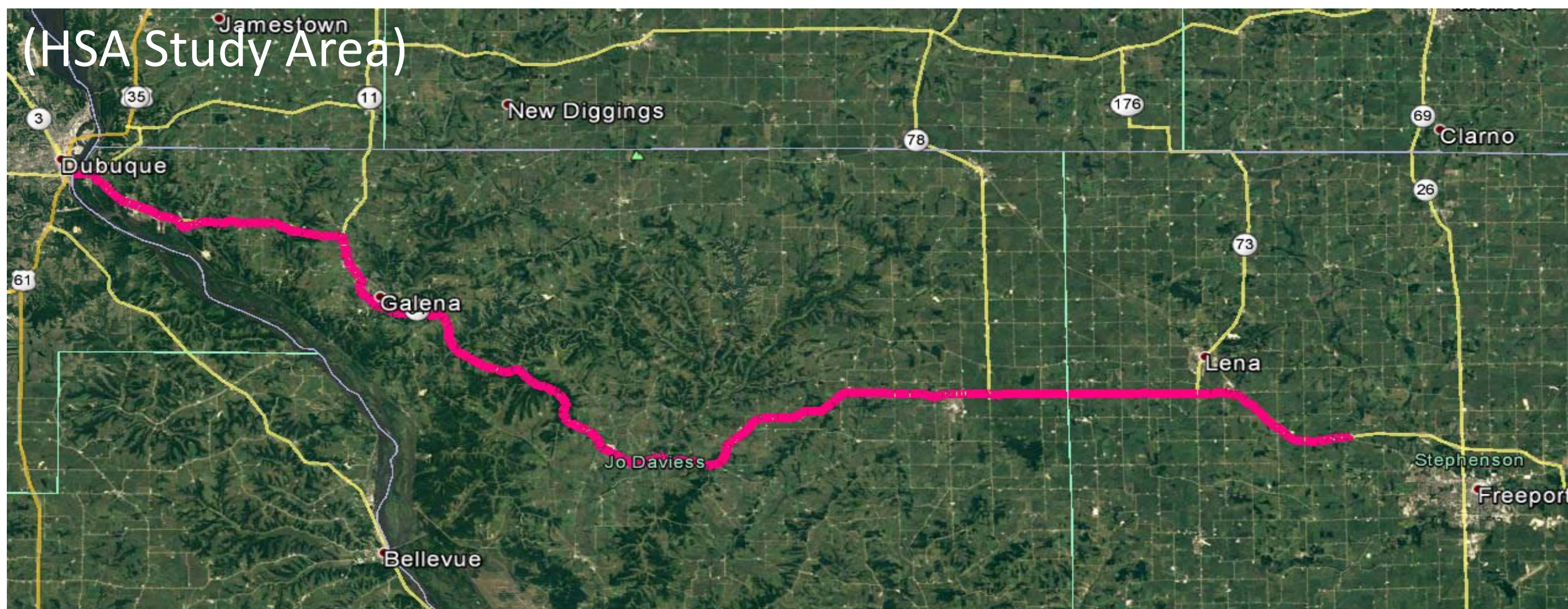
Local jurisdictions feels that the project may not be implemented quickly enough because of limited funding.

US 20 IMPROVWEMENTS FROM DUBUQUE TO FREEPORT



RECOMMENDATION

Reduce the number and severity of truck-related crashes and improve overall corridor performance for users; reduce the need for truckers to use longer and more expensive alternative routings (US-61/I-88, et al.)



PROJECT

ILDOT recently completed Highway Safety Assessment (HSA) to identify safety improvements along the corridor and do spot improvements to address safety.

The HSA generated list of projects that each entity can work with ILLDOT to implement them.

US 20 IMPROVEMENT WITHIN MPO

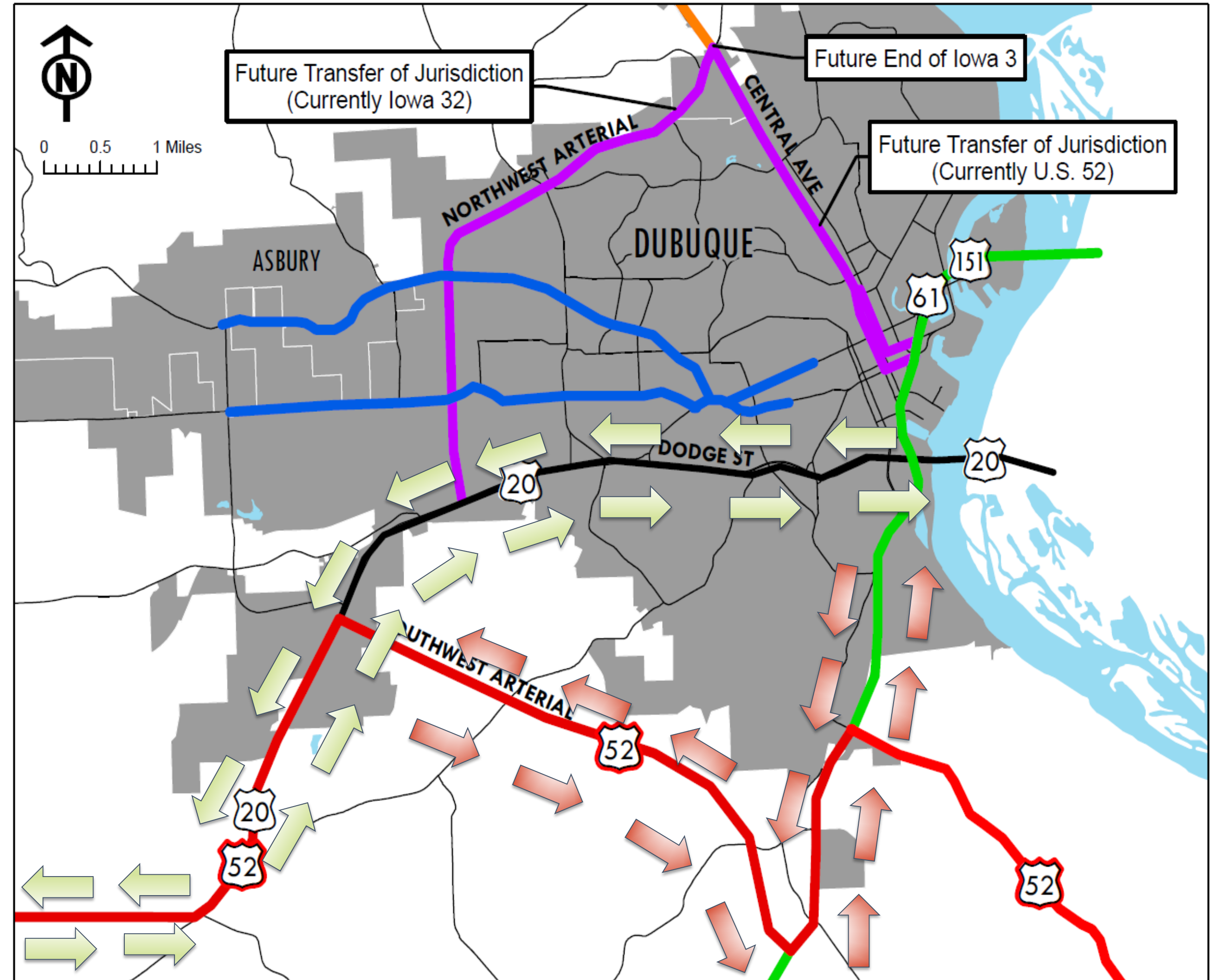
US 20 is one of the most congested corridors in Dubuque Metro area with 40,000 vehicles per day with 212 crashes and one fatality in 2018.

RECOMMENDATION

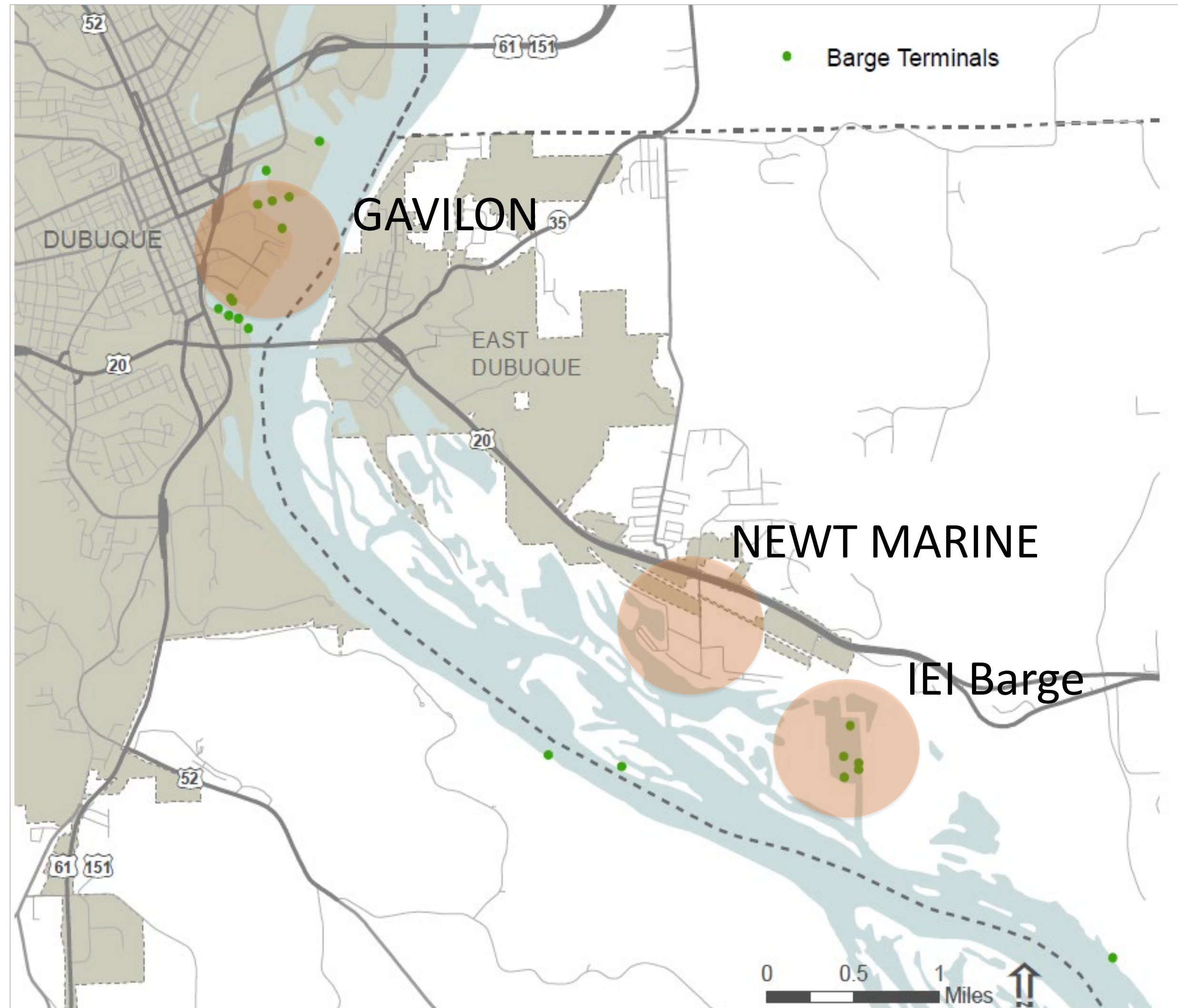
Reduce delay and improve safety for freight traffic by avoiding US 20 during peak hours.

PROJECT

The Dubuque MPO in partnership with the City of Dubuque, Dubuque County and Iowa Department of Transportation (IADOT) is in process of completing US 52 / SW Arterial. This project will help to detour freight traffic from urban core.



PORT EXPANSION



RECOMMENDATION

Improve Marine Terminal capacity in the Dubuque area to accommodate a broad range of higher-value ro-ro, break-bulk, and project cargo; containers, liquid bulk, or dry bulk

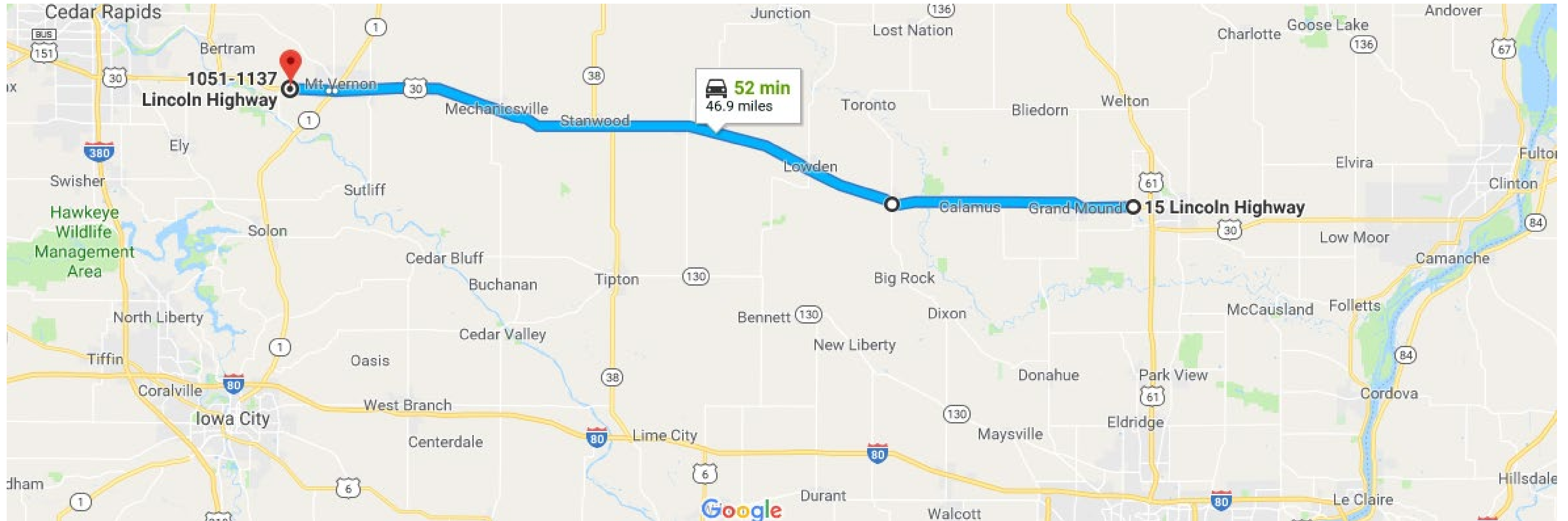
PROJECT

The Dubuque MPO is conducting a Port Expansion Study. The Study is designed to address the following:

- Potential market demand
- Sustainable operation v existing capabilities
- Long term sustainability
- Market Analysis
- Infrastructure needs

GOAL 3%

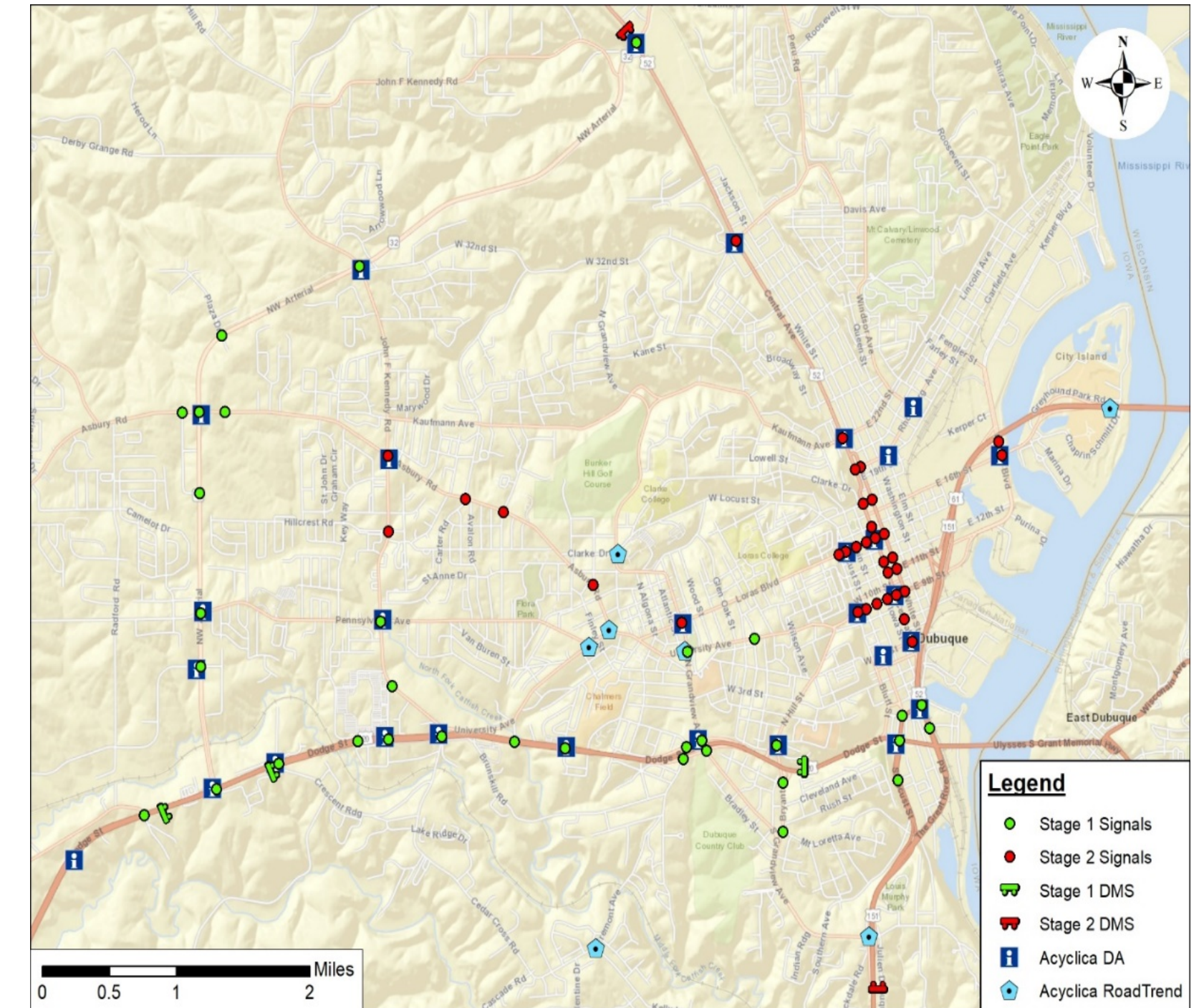
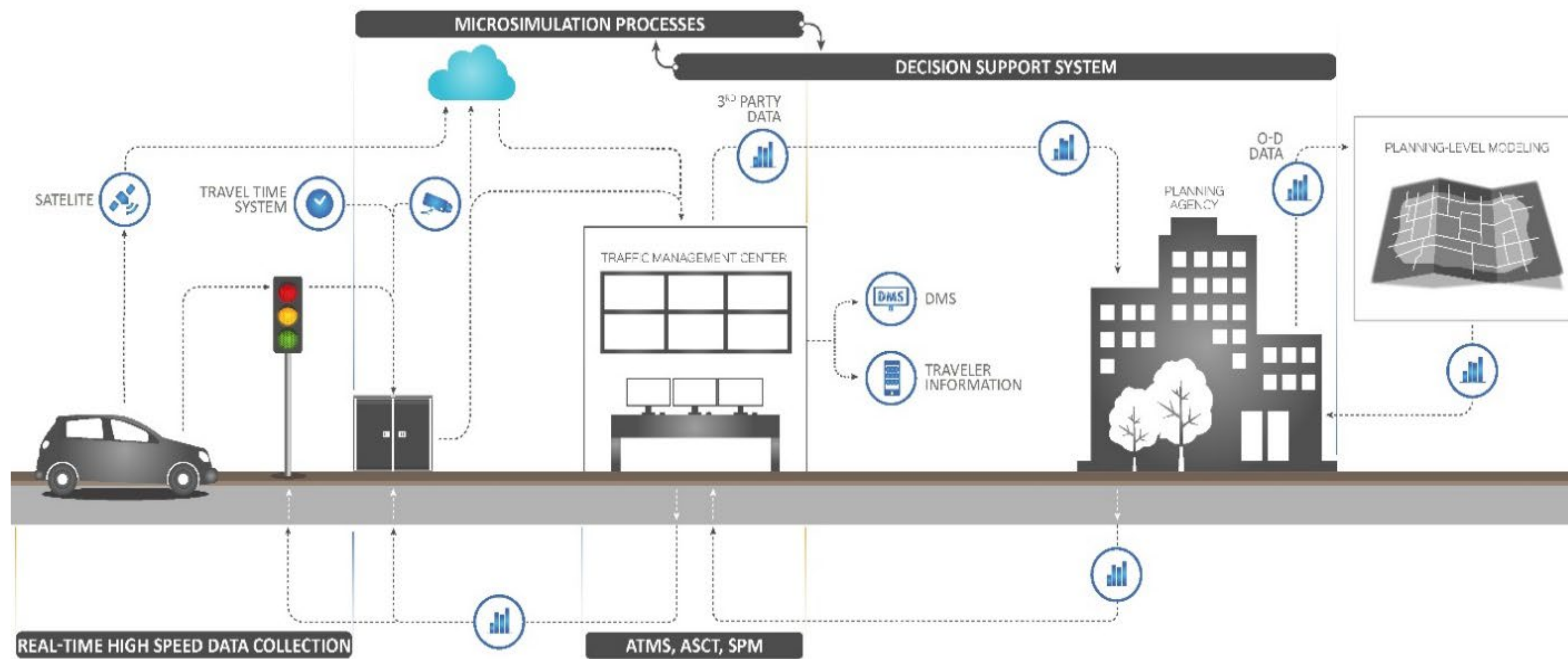
ANNUAL TRUCK CRASH ANALYSIS ON US 30



RECOMMENDATION

Improve access between the Study Area, new multimodal transfer facilities being developed at Cedar Rapids IA, and potential future marine terminal at or near East Clinton IL; reduce the need for truckers to use longer and more expensive alternative routings (US-61/I-80, et al.)

TRAFFIC ROUTING WITH EFFICIENT & EFFECTIVE TRAFFIC SYSTEM (STREETS)



RECOMMENDATION

Improve efficiency and reduce congestion on all major corridors within metro area

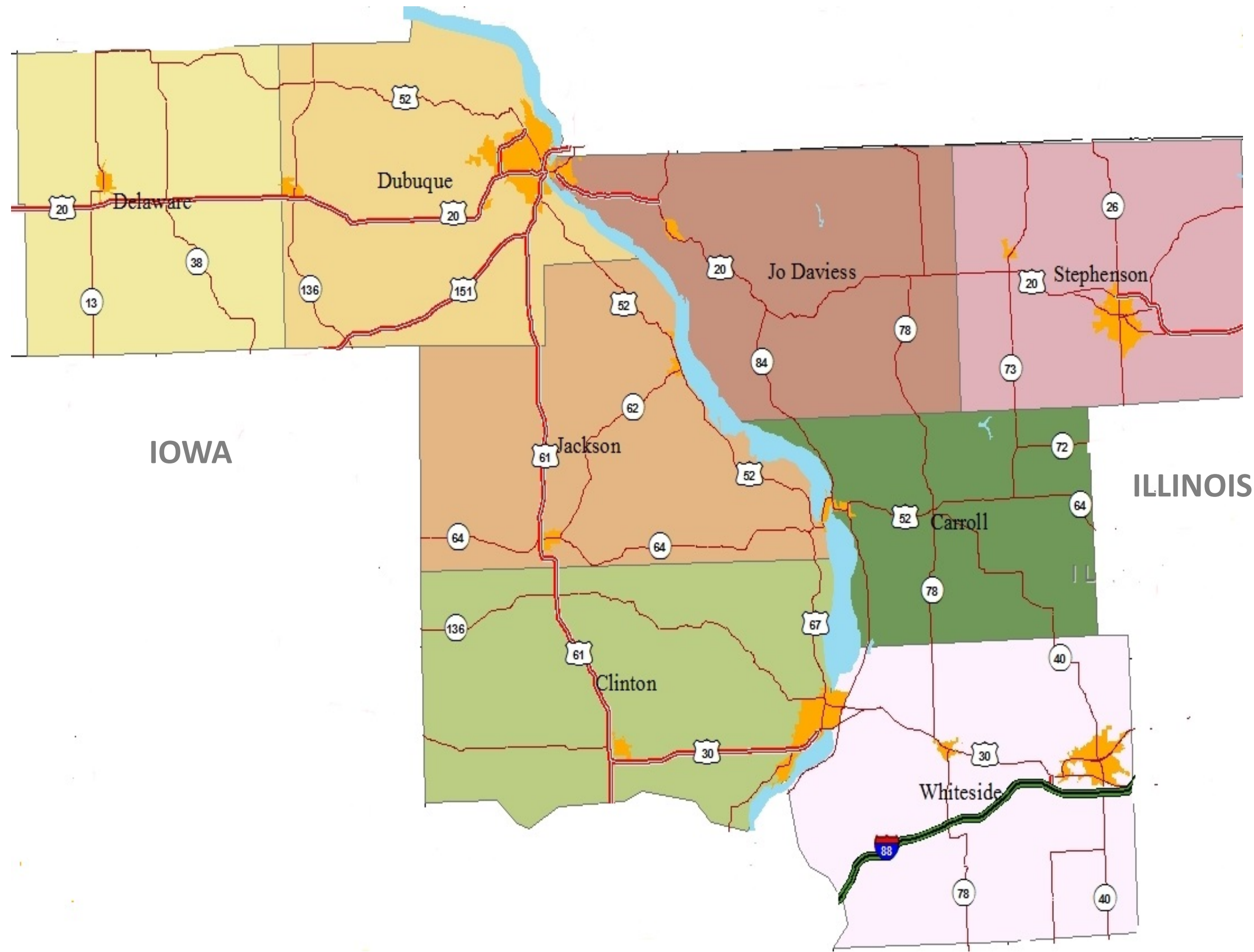
PROJECT

The goal of the Smart Traffic Routing with Efficient and Effective Traffic Signals (STREETS) project is to develop a smart, next-generation, traffic management and control system. This system will use traffic control strategies to enable dynamic traffic routing to maximize the use of existing roadway capacities in the Dubuque metro area.

POLICY

- Truck regulation harmonization between Iowa and Illinois
- Illinois seasonal exemption for agricultural loads (up to 90,000lbs)

THE STUDY WAS SUCCESSFUL



COLLOBRATION

PARTNERSHIPS

RECOMMENDATIONS

IMPLEMENTATION

EIGHT COUNTY FREIGHT STUDY

Freight Stakeholders

QUESTIONS ?

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