

Eight County Freight Plan

*East Central Intergovernmental Association &
Blackhawk Hills Regional Council*

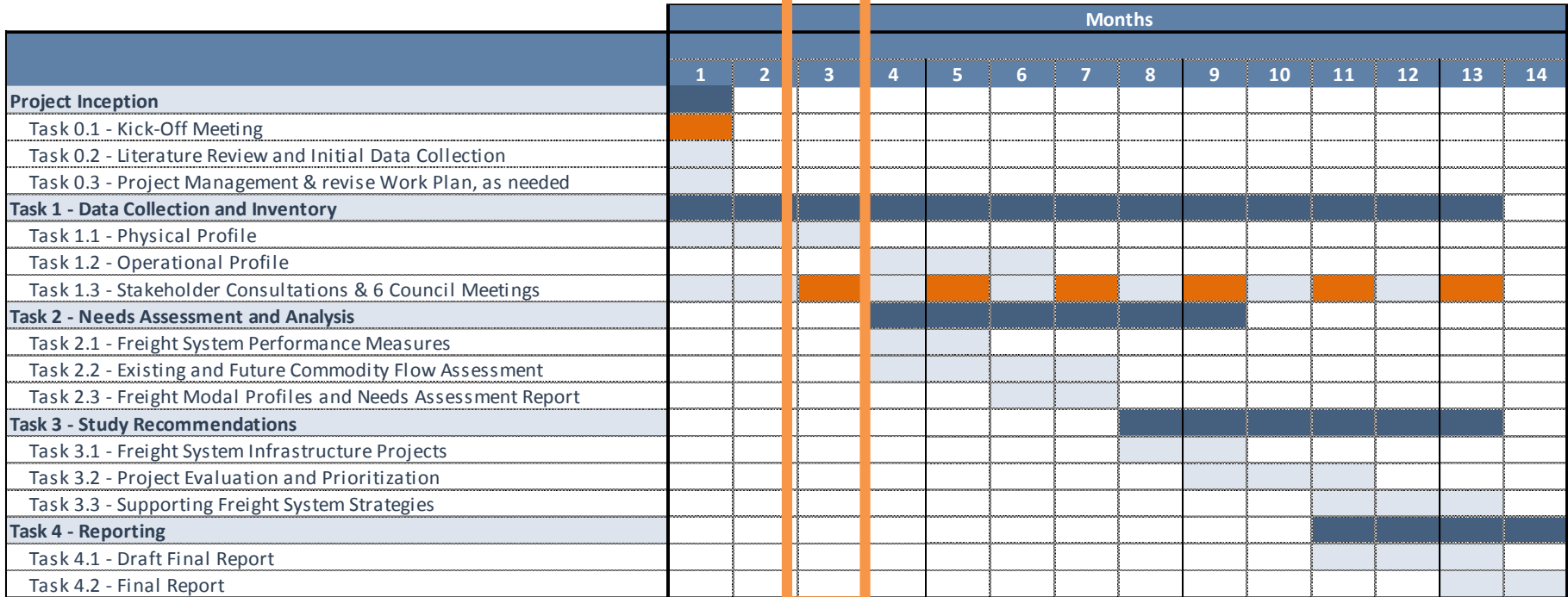
CPCS Team
March 27, 2017
Dubuque, IA

Project Objective

To develop a better understanding of the multimodal freight system in the bi-state region and to use this information to better inform policy and programming decisions.

Work Plan Overview

We are here



Legend



Major Task Duration



Work Activity



Meeting

Presentation Map



Eight County Local Economy

Freight System Inventory

Visioning

Stakeholder Perspectives

Questions & Discussion

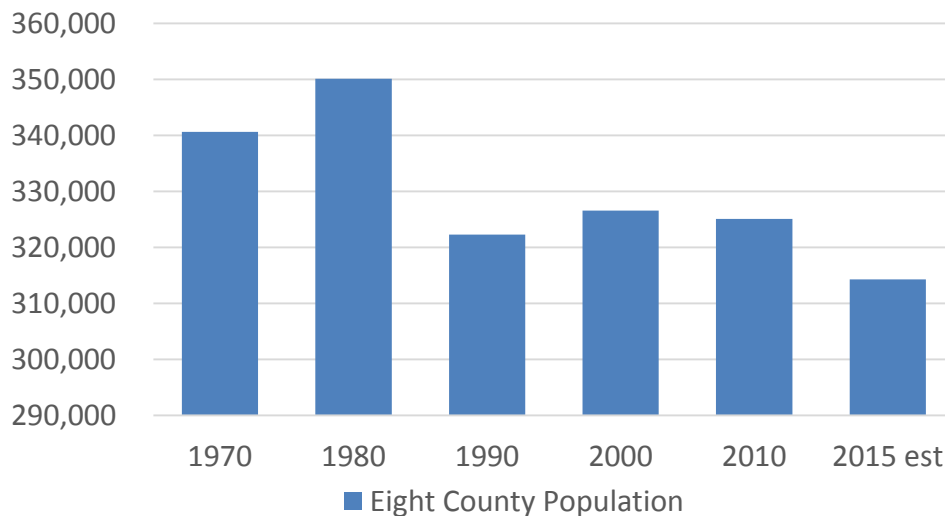
What drives the Eight County Economy?

- What is the socio-economic make-up of the Eight County Region?
- What are freight-related industries?
- What portion of businesses in the Eight County Region are freight-related?
- What are the key industries in the Eight County Region?

Regional Population and Education

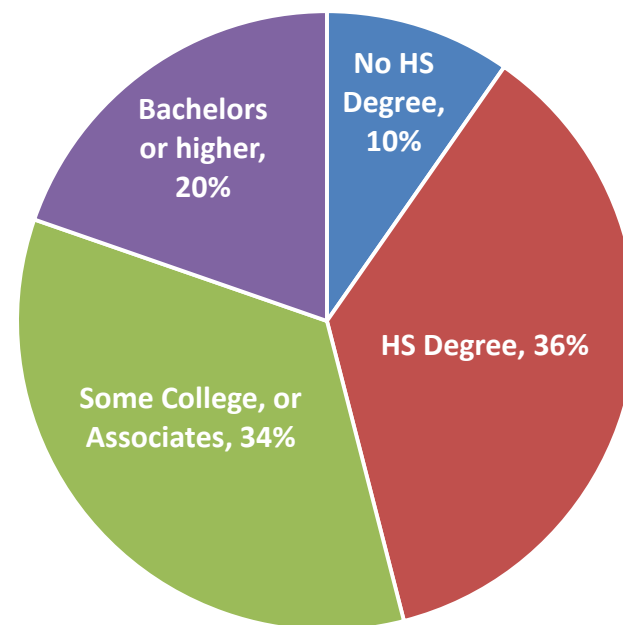
- Population
 - 26,400 (8%) drop from 1970 to 2015
- Education
 - Over half the population with some college/associates or higher

Eight County Population



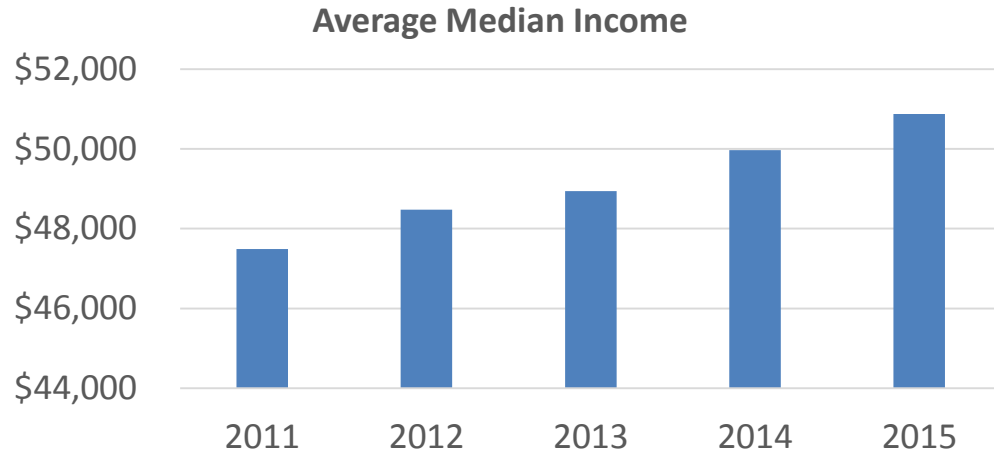
Source: CPCS Analysis of 2015 American Community Survey Data, US Census Bureau

2015 Level of Education (18+)

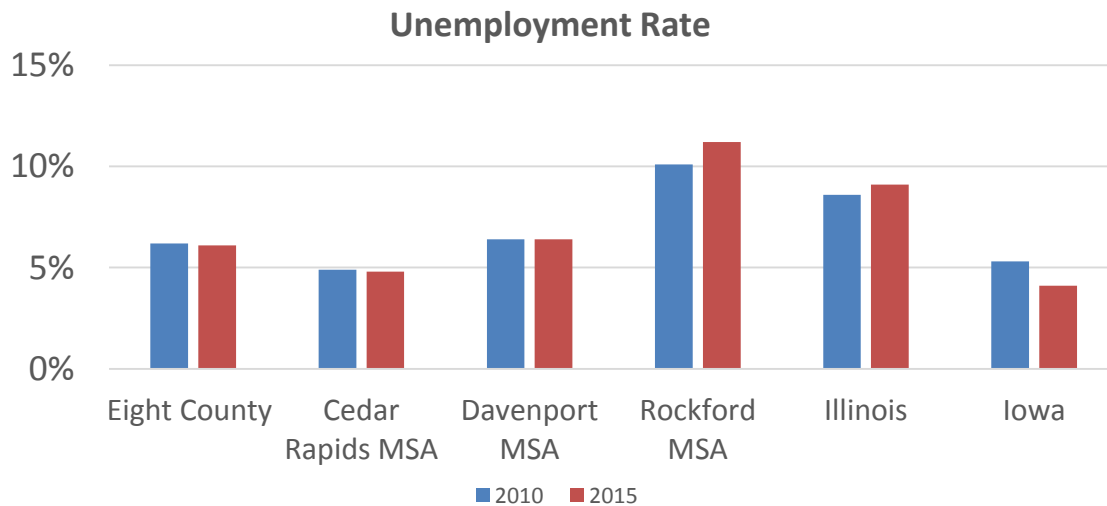


Employment and Wages

- Wages continue to grow
 - Percent change = 7.1%
 - CAGR = 1.7%



Source: CPCS Analysis of 2015 American Community Survey Data, US Census Bureau
All amounts in inflation-adjusted 2015 dollars.



Source: CPCS Analysis of 2015 American Community Survey Data, US Census Bureau

- Unemployment tracks below peer cities
 - Percent change = -1.6%

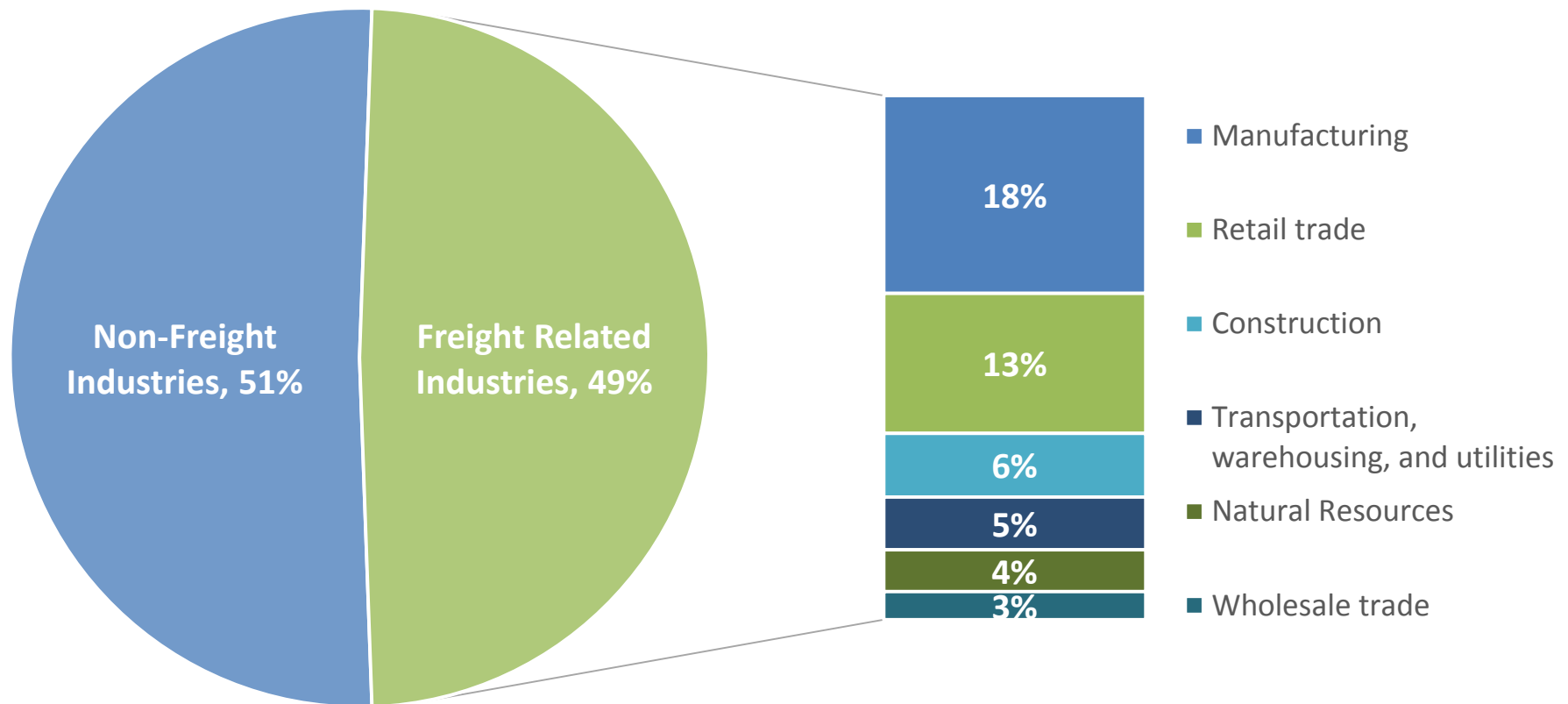
What is a “freight-related” industry?

An industry that requires transportation (road, rail, water, air, intermodal) to convey freight as part of their daily activities.

Example Industry	YES, Freight-Related	NO, Not Freight-Related
Manufacturing	YES	
Retail and Wholesale Trade	YES	
Construction	YES	
Agriculture	YES	
Education		NO
Healthcare		NO
Finance and Insurance		NO

What drives the Eight County Economy?

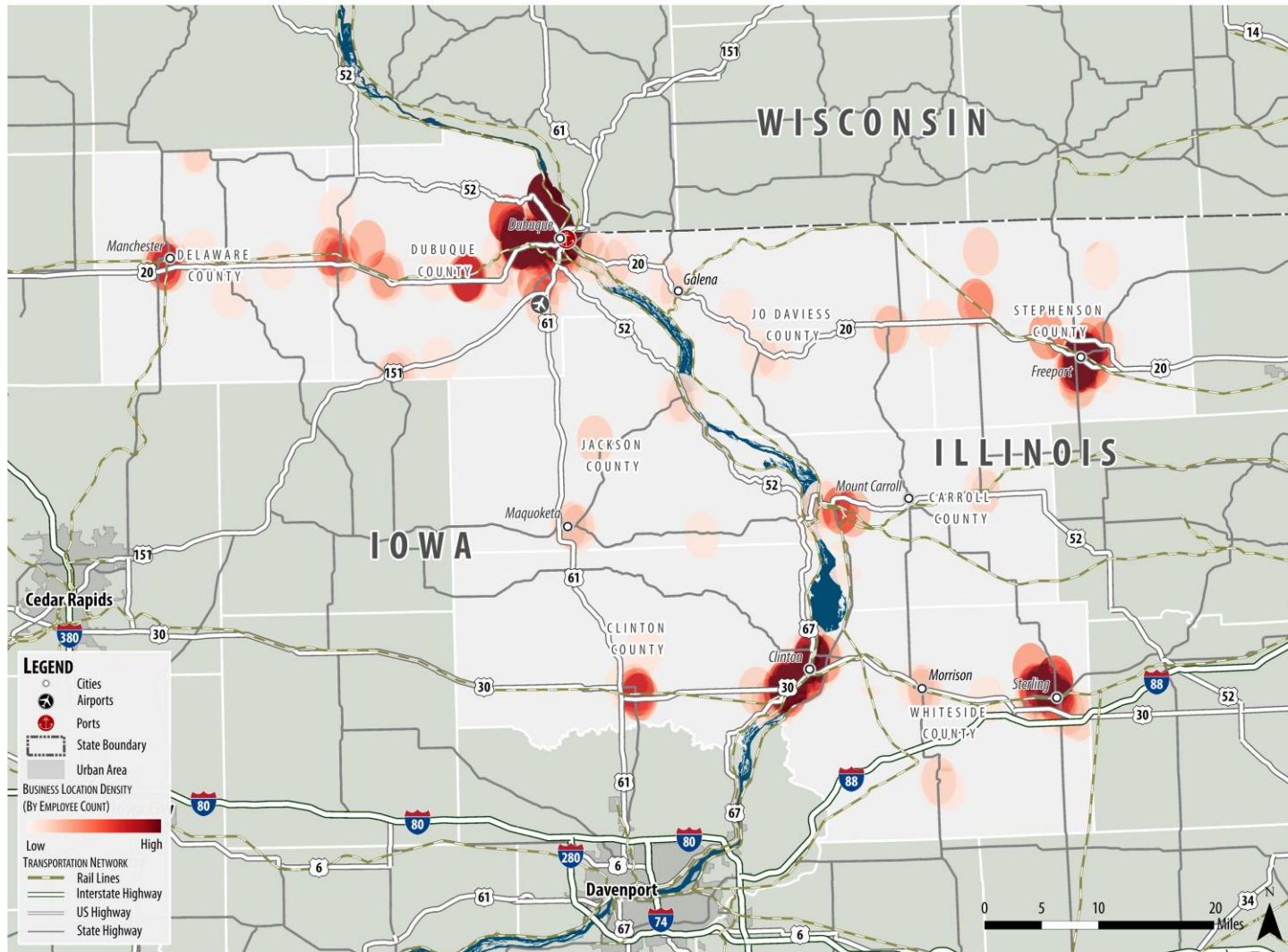
Freight-related industries comprise almost ½ of Region's employment



Source: CPCS Analysis of 2015 American Community Survey Data, US Census Bureau

Freight-Related Employment Concentration

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Source: CPCS Analysis of ReferenceUSA, 2016

Freight-Related Employment

NAICS	Firms with 20-49 Employees	Firms with 50-99 Employees	Firms with 100+ Employees
(11) Agriculture, Forestry, Fishing, and Hunting	3	2	1
(21) Mining, Quarrying, Oil and Gas Extraction	5	2	2
(22) Utilities	5	0	5
(23) Construction	87	12	24
(31-33) Manufacturing	144	49	92
(42) Wholesale Trade	69	24	117
(44-45) Retail Trade	191	44	52
(48-49) Transportation and Warehousing	81	16	10

Source: CPCS Analysis of ReferenceUSA, 2016

What the Region does Better (Location Quotient)

Industry	Carroll	Clinton	Delaware	Dubuque	Jackson	Jo Daviess	Stephenson	Whiteside
(11) Agriculture	ND	ND	1.58	ND	1.97	ND	2.66	ND
(21) Mining, Quarrying, Oil and Gas Extraction	ND	ND	NC	ND	NC	ND	NC	ND
(22) Utilities	ND	1.11	ND	0.66	ND	ND	ND	0.33
(23) Construction	0.9	0.9	1.25	0.86	0.97	1.3	1.36	0.6
(31-33) Manufacturing	2.13	2.28	3.18	1.68	1.65	1.6	2.3	2.02
(42) Wholesale trade	2.15	0.5	1.9	1.16	1.33	ND	0.67	0.96
(44-45) Retail trade	1.24	0.98	0.95	0.98	1.35	1.14	0.89	1.16
(48-49) Transportation, Warehousing	ND	ND	ND	2.07	1.17	ND	1.06	ND

Source: CPCS Analysis of Bureau of Labor Statistics, 2015

ND indicates that a quotient is not disclosable, and NC indicates quotients that could not be calculated.

Open Discussion

- Do you agree with our assessment of what drives the Eight County Region's economy?
- What might be missing from this picture?

Presentation Map

Eight County Local Economy



Freight System Inventory

Visioning

Stakeholder Perspectives

Questions & Discussion

Freight Industry Use of the Transportation System

The mode a business uses depends on a number of factors... but usually the most important is price and mode availability

<---- Higher			Lower---->		
Air Cargo	Truck	Rail Intermodal	Rail Unit	Rail Carload	Water
<---- Faster			Slower---->		
<---- More Reliable		Service Characteristics	Less Reliable---->		
<---- More Visible			Less Visible---->		
<---- More Expensive			Less Expensive---->		
<---- Low Weight		Cargo Characteristics	High Weight---->		
<---- Higher Value			Lower Value---->		
<---- More Time-Sensitive			Less Time-Sensitive---->		

Source: CPCS adapted from Freight Transportation Service Spectrum, Hofstra University

Freight Industry Use of the Transportation System

Examples



Agriculture

Favors lowest transportation cost, less time sensitive



Manufacturing

Favors transit time, level of service

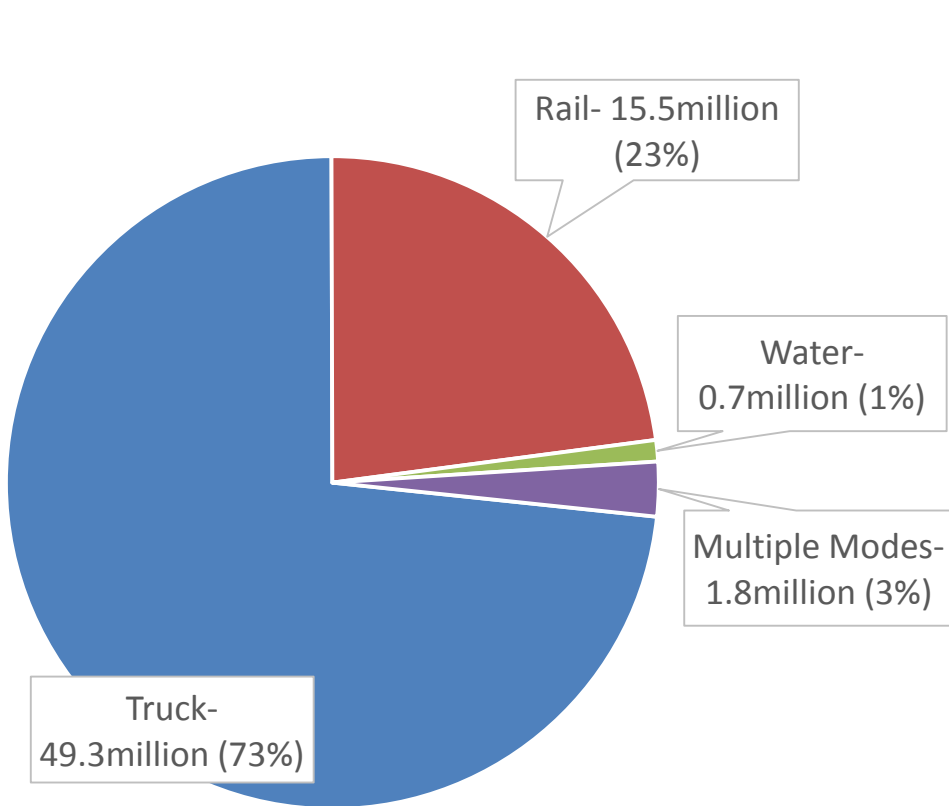


Construction

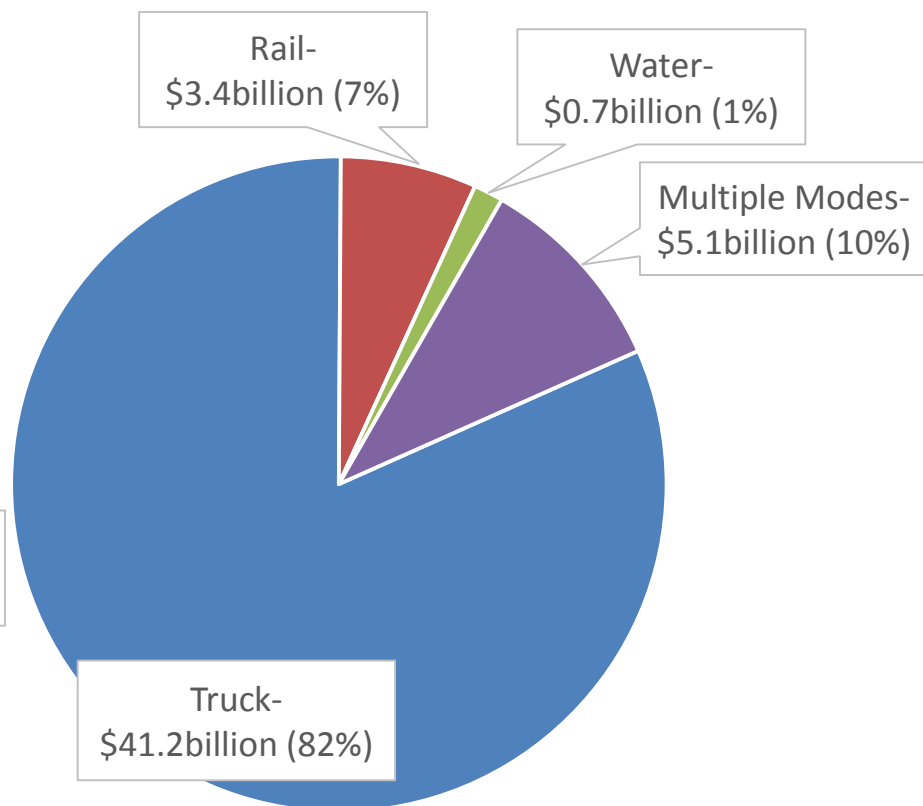
Favors lowest transportation cost, truck often last mile

Freight Tonnage and Value in the Eight Counties

Tons by Mode (2014)
Total = 67.3 Million tons

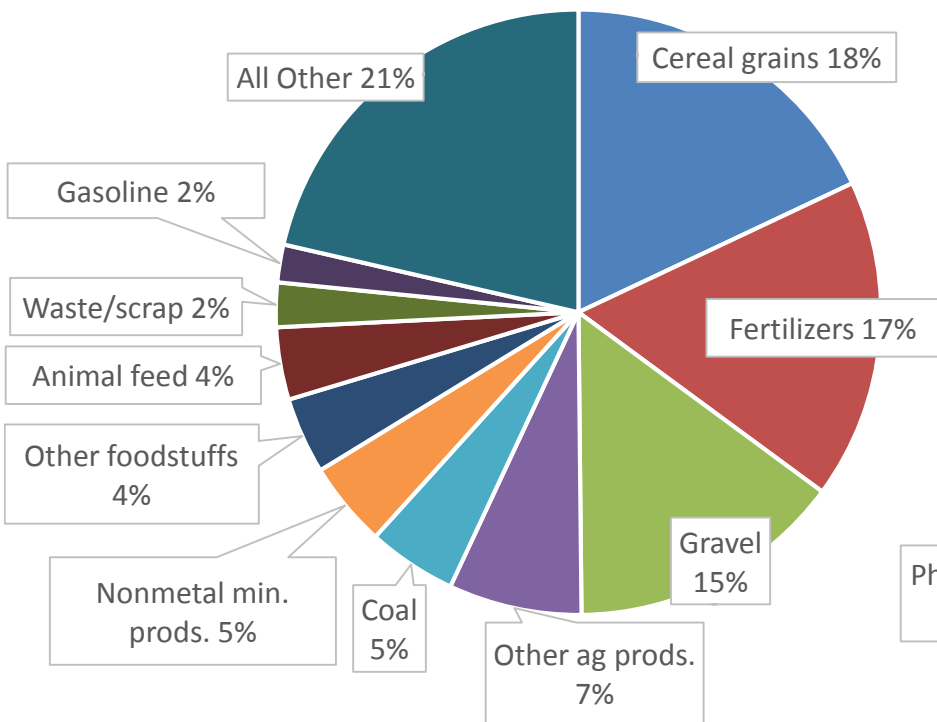


Value by Mode (2014)
Total = \$50.4 Billion

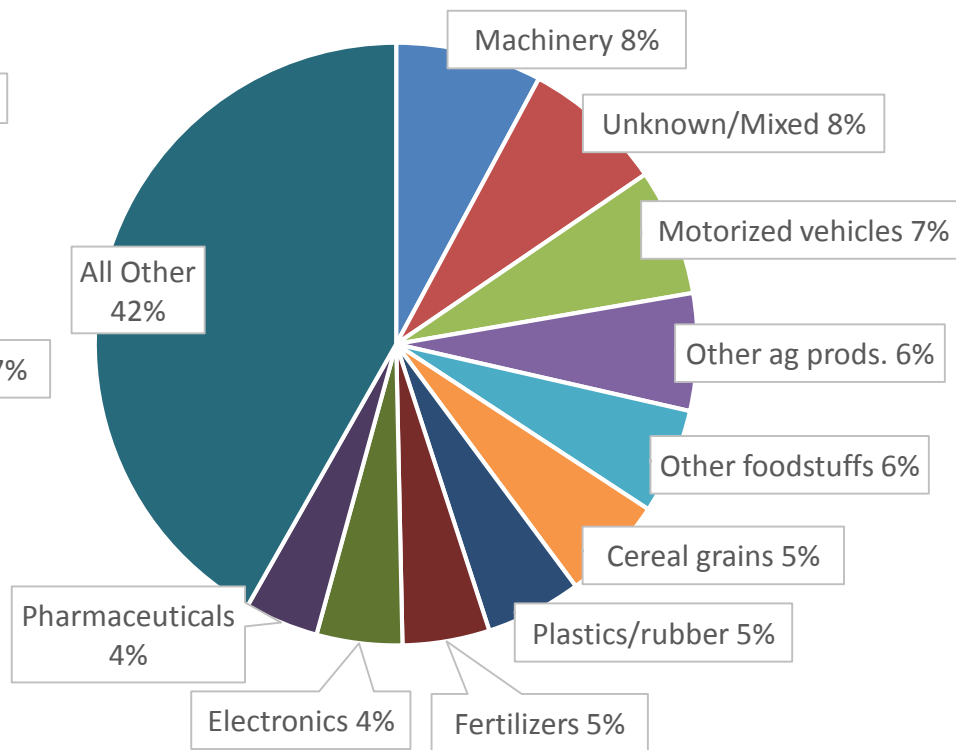


Freight Tonnage and Value in the Eight Counties

Tons by Commodity (2014)
Total = 67,332,050



Value by Commodity (2014)
Total = \$50,412,039,476



Roadways

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Road System Information (Preliminary)

- Truck share of regional freight:

- Tonnage: 49 million tons (73.3%)
- Value: \$41 billion (81.8%)

- Roadway extent statistics (miles)

	Interstates	US Highways	State Highways
Length	30	388	454

- Most of region is within short driving distance of a metropolitan area

	Davenport (Interstate link)	Cedar Rapids (Intermodal terminal)	Chicago (Midwest freight hub)
Dubuque	71 miles, 1.25 hours	73 miles, 1.25 hours	175 miles, 3.25 hours
Clinton	41 miles, 0.75 hours	84 miles, 1.50 hours	144 miles, 2.50 hours
Freeport	100 miles, 2.00 hours	137 miles, 2.50 hours	114 miles, 2.00 hours

Railroads

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Rail System Information (Preliminary)

- Class I Railroads:
 - Union Pacific: 98.34 miles
 - Canadian National: 207.9 miles
 - Canadian Pacific: 160.1 miles
 - BNSF: 130.7 miles
- Rail share of regional freight:
 - Tonnage: 15 million tons (23%)
 - Value: \$3.4 billion (6.7%)
- 486 railroad crossings in region

Facility	Railroad	Estimated Maximum Rail Miles from Region	Estimated Travel Time
Global III (Rochelle, IL)	UP	80 (From DeWitt)	2.9 hours at 27.3 MPH
Cedar Rapids Intermodal	CRANDIC	110 (From Sterling, via UP)	4.0 hours at 27.3 MPH
Cicero Intermodal (Chicago)	BNSF	180 (From E. Dubuque)	6.4 hours at 28.3 MPH
Bensenville, IL	CP	180 (From Dubuque)	6.8 hours at 26.6 MPH
Joliet, IL	CN	210 (From Dubuque)	7.9 hours at 26.6 MPH

Source: AAR Performance Measures

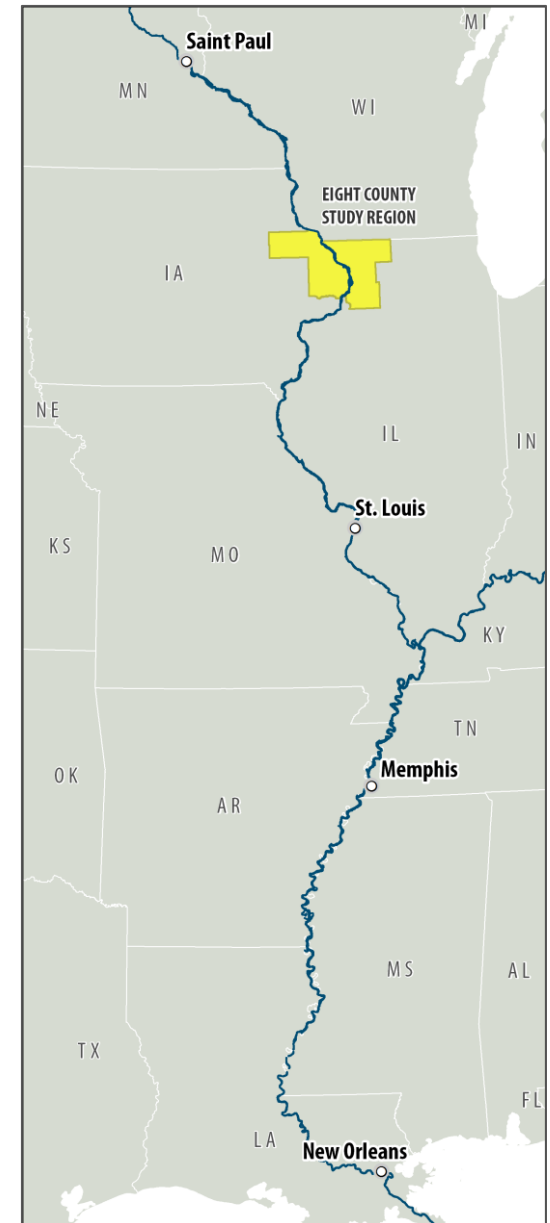
Marine System

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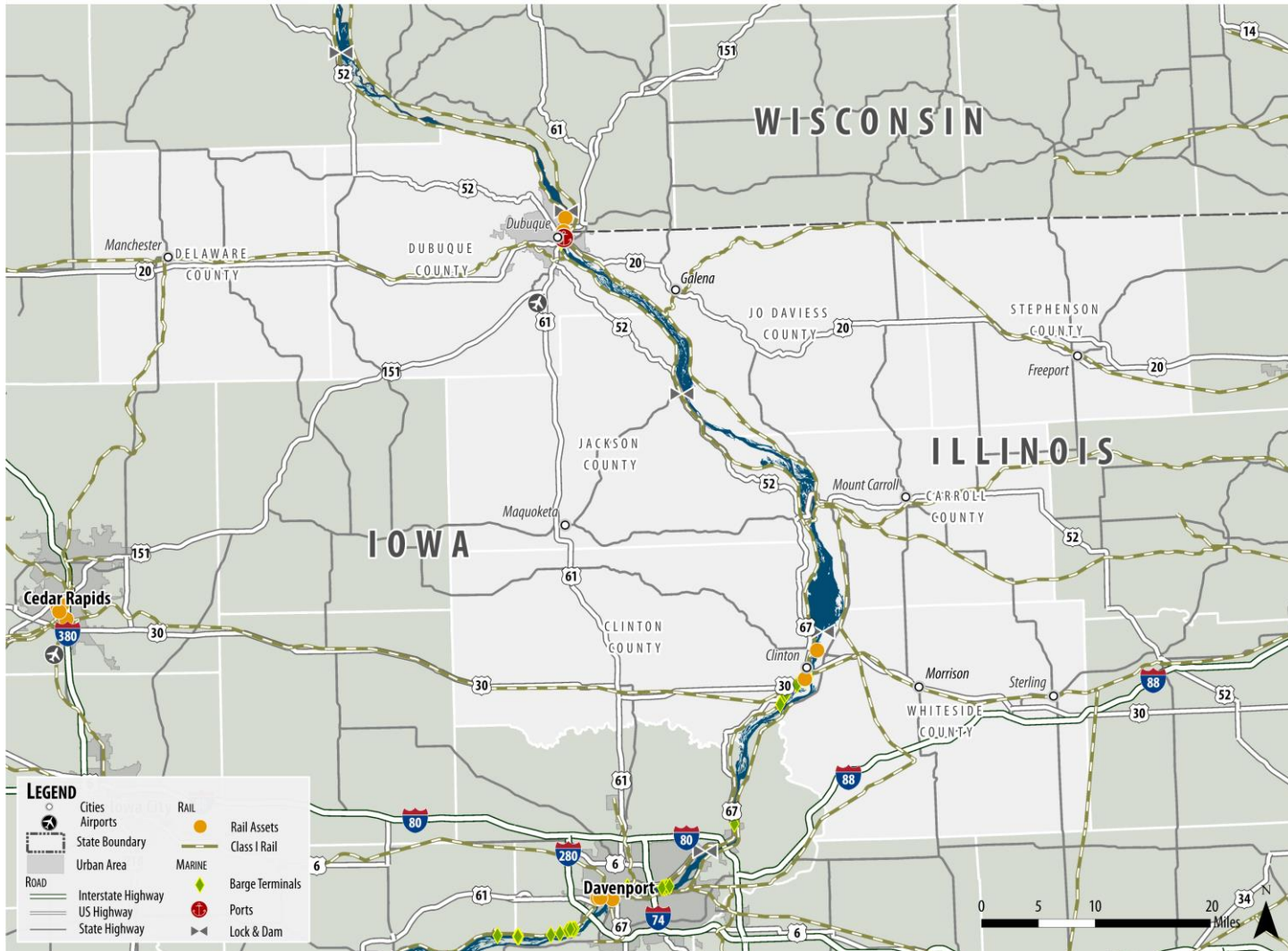
Marine System Information (Preliminary)

- Marine share of regional freight:
 - Tonnage: 713,000 tons (1%)
 - Value : \$734 million (1.5%)
- 94 miles of the Mississippi River in the Region
- Three locks and dams, all with 110 x 600' locks, built between 1934 and 1939
- Connection
 - 1,460 – 1,550 miles to the Gulf
 - 15 days average travel time to the Gulf
 - Trip passes through 16 locks from top of region



Intermodal Facilities (Preliminary)

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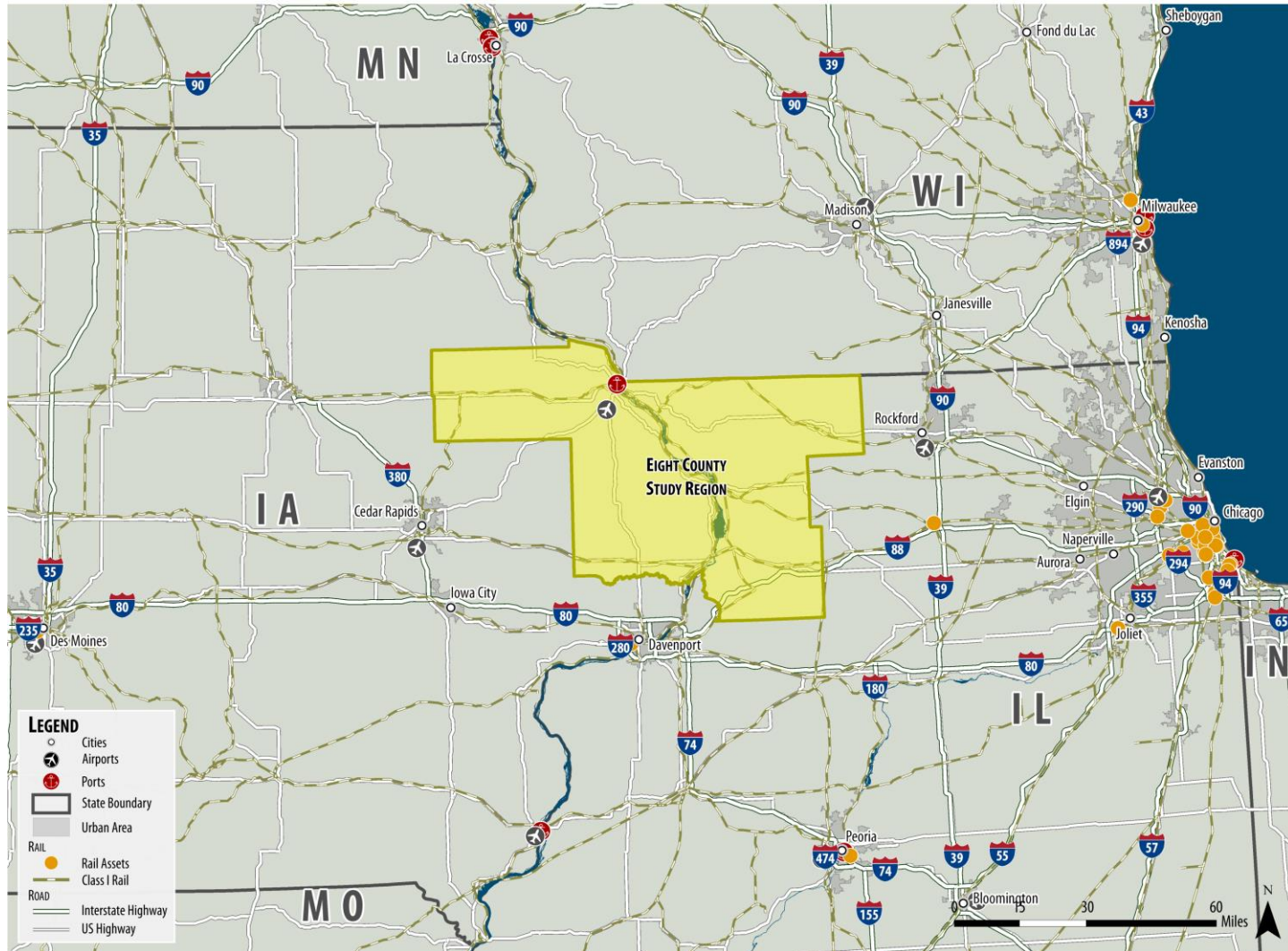
Intermodal Facilities (Preliminary)

Facility Name	City	Type
Peavey Grain Co	Clinton, IA	Truck - Rail
ARTCO Fleeting	Clinton, IA	Truck - Rail - Water
Clinton Municipal Dock	Clinton, IA	Truck - Rail - Water
ADM/Growmark	Clinton, IA	Truck - Rail - Water
ADM Corn Processing	Clinton, IA	Truck - Rail - Water
Port of Dubuque	Dubuque, IA	Truck - Rail - Water
Dubuque Regional Airport	Dubuque, IA	Truck - Air
Hodge Co	Dubuque, IA	Truck - Rail
Conticarriers & Terminal Inc	Dubuque, IA	Truck - Rail
Continental Grain Co	Dubuque, IA	Truck - Rail
Flint Hills Resources	Dubuque, IA	Truck - Rail - Water
Cargill AgHorizons	Dubuque, IA	Truck - Water
Peavey Company	Dubuque, IA	Truck - Rail - Water
Dubuque Barge and Fleeting Service	Dubuque, IA	Truck - Water
ARTCO Fleeting Services	Dubuque, IA	Truck - Water
Agri Grain Marketing	Fulton, IL	Truck - Rail

Source: National Transportation Atlas Database, Iowa DOT

Eight County Proximity

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Open Discussion

- Do you agree with our identification of the Eight County Region's infrastructure assets?
- What might be missing from this picture?

Presentation Map

Eight County Local Economy

Freight System Inventory



Visioning

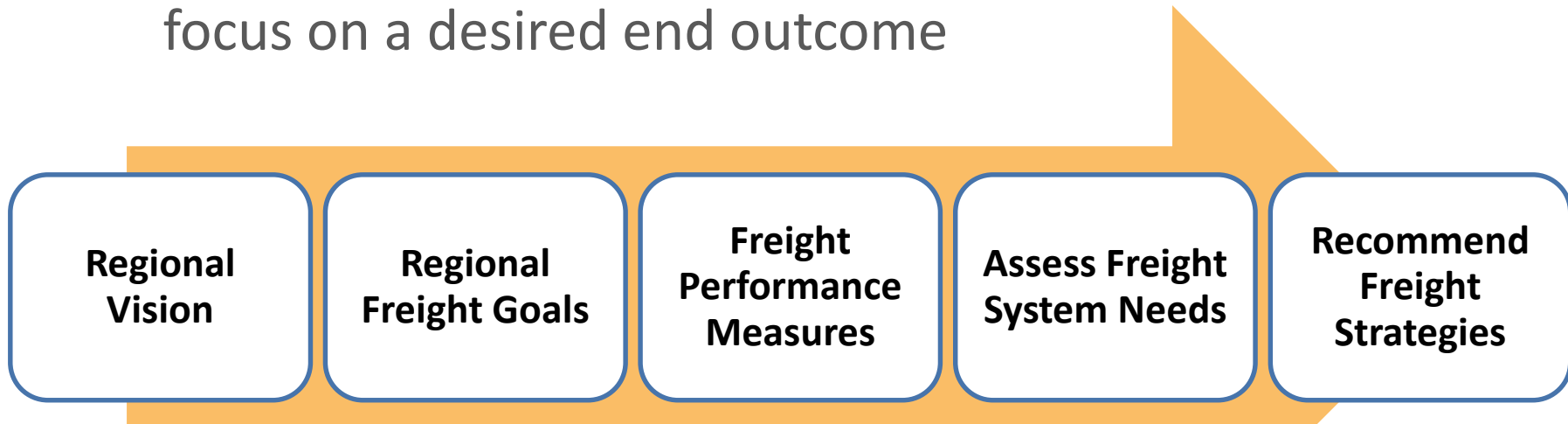
Stakeholder Perspectives

Questions & Discussion

Why the Vision Matters

The Vision Underpins Freight Plan Next Steps

- Current performances
- Future needs
- Recommended strategies
- Ultimately the vision unifies understanding and keeps focus on a desired end outcome



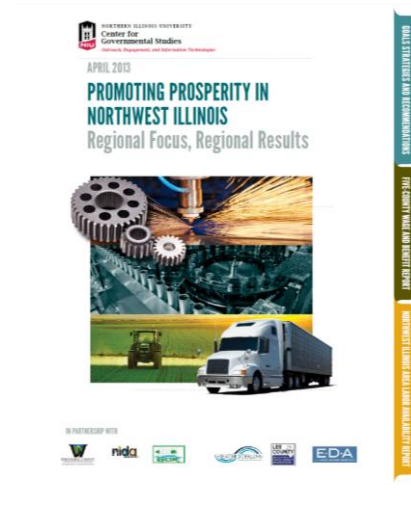
Building a Vision – Alignment

Assessed Existing Freight Vision and Goals

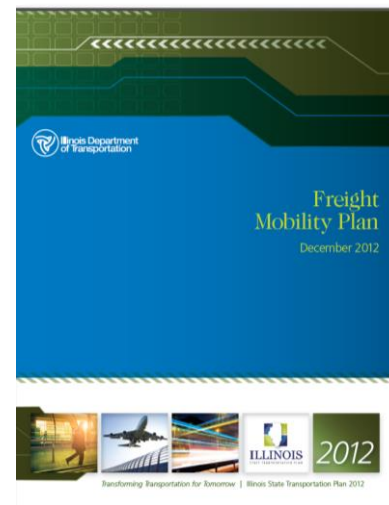
- Federal Legislation
- State Freight Plans
- State/Local Long-Range Transportation Plans
- Comprehensive Economic Development Strategy



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Vision

- Enable business attraction, retention and expansion
- Provide a reliable and efficient freight system
- Leverage existing freight assets
- Provide connection between modes and with regional and national freight systems
- Collaborate with public and private stakeholders

Approaches to Freight Vision Statements

- **Example #1 – Full Meal Deal**
 - The Eight County freight system provides safe, efficient, and competitive services that connect the region’s businesses and industries with domestic and international markets, and support statewide economic development activities.
- **Example #2 – Transportation & Economics Focus**
 - The Eight County freight system provides for the reliable movement of goods, while improving overall transportation system efficiency and promoting economic growth.
- **Example #3 – Short and Sweet**
 - The Eight County freight system successfully moves products and enhances state and local economic growth.

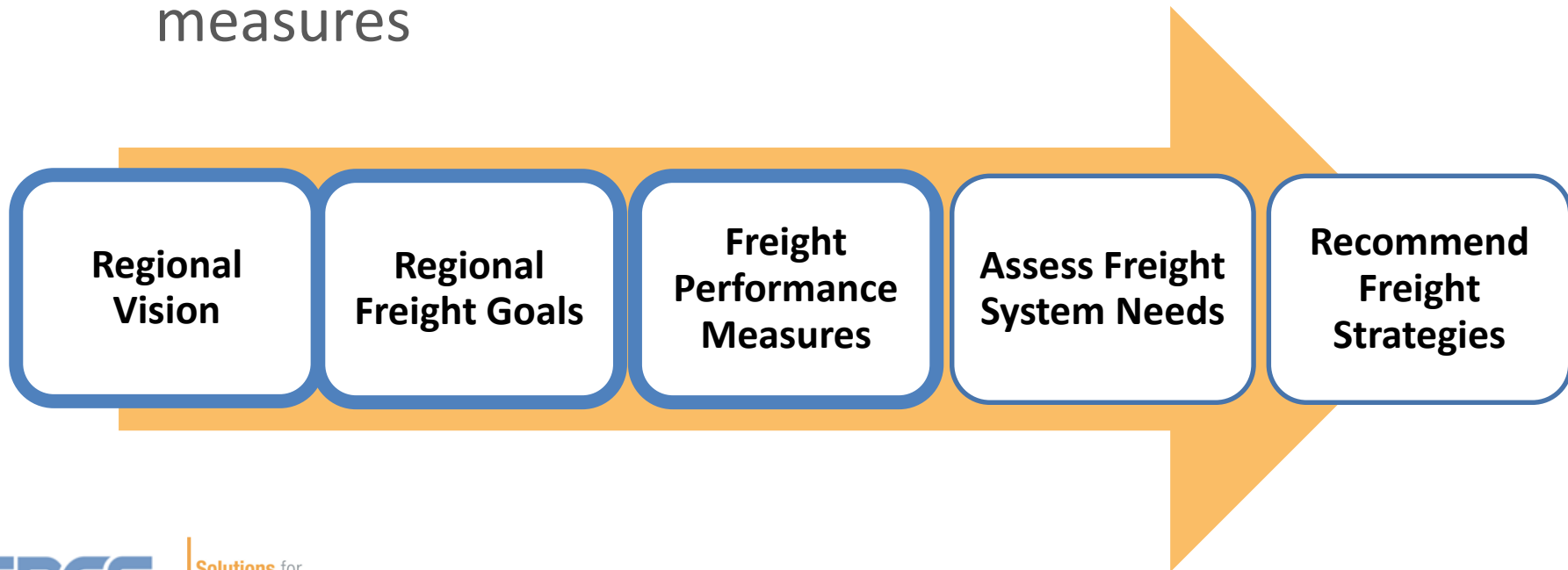
The Eight County multimodal freight system enables economic growth by meeting the transportation needs of local businesses and providing efficient and reliable access to the region, nation, and globe

Does the Vision make sense and does it link to what you have been hearing from businesses?

- Are the key elements captured?
- Are there concepts that deserve more or less emphases?
- Does this appropriately describe the desired outcome for the Regions freight future?
- Is the statement bold enough (i.e., inevitable or visionary future)?

Incorporate Comments and Implement Vision

- Develop supporting goals
- Use vision and goals to define performance measures



Presentation Map

Eight County Local Economy

Freight System Inventory

Visioning



Stakeholder Perspectives

Questions & Discussion

Stakeholder Outreach

Public Agencies

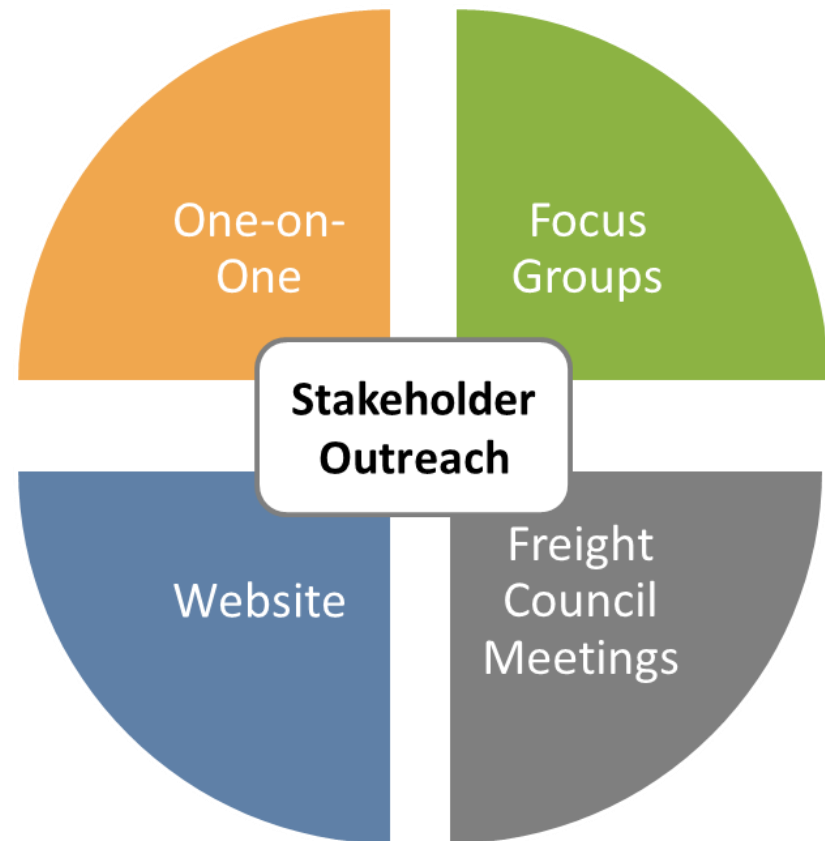
- Internalize institutional knowledge
- Understand needs
- Develop buy-in for implementation

Private Sector

- Identify/validate needs and opportunities
- Confirm recommendations
- Develop buy-in for implementation

Individuals

- Public awareness

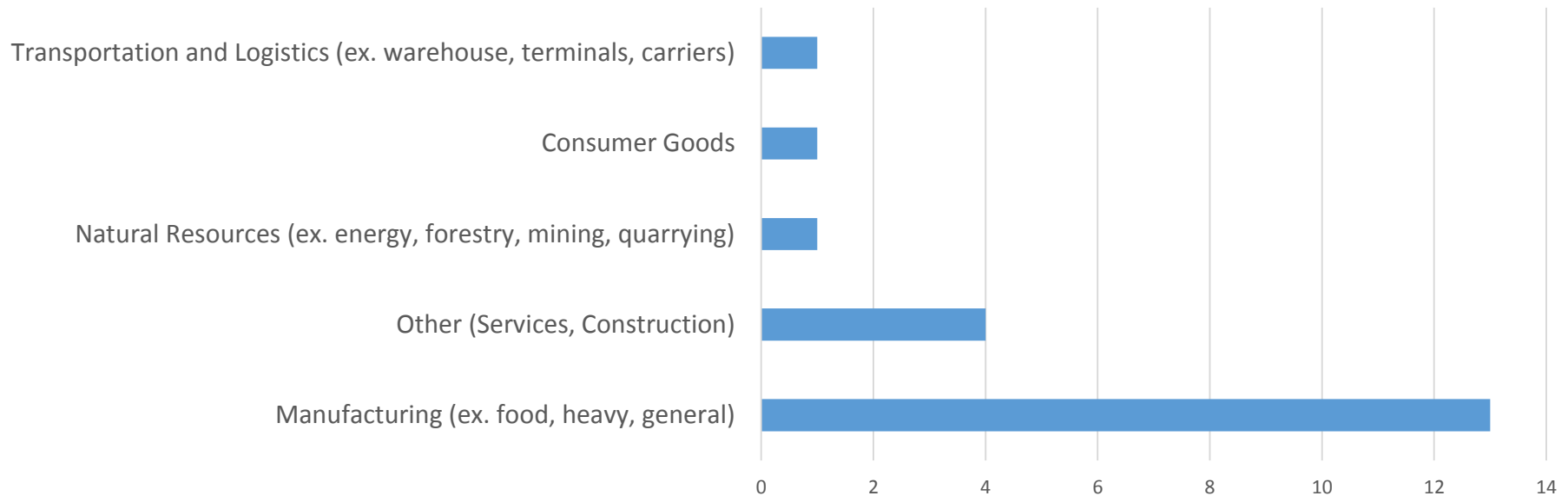


Industry Survey – Response Overview

- Online survey
- 22 qualitative and quantitative questions
- Twenty companies responded

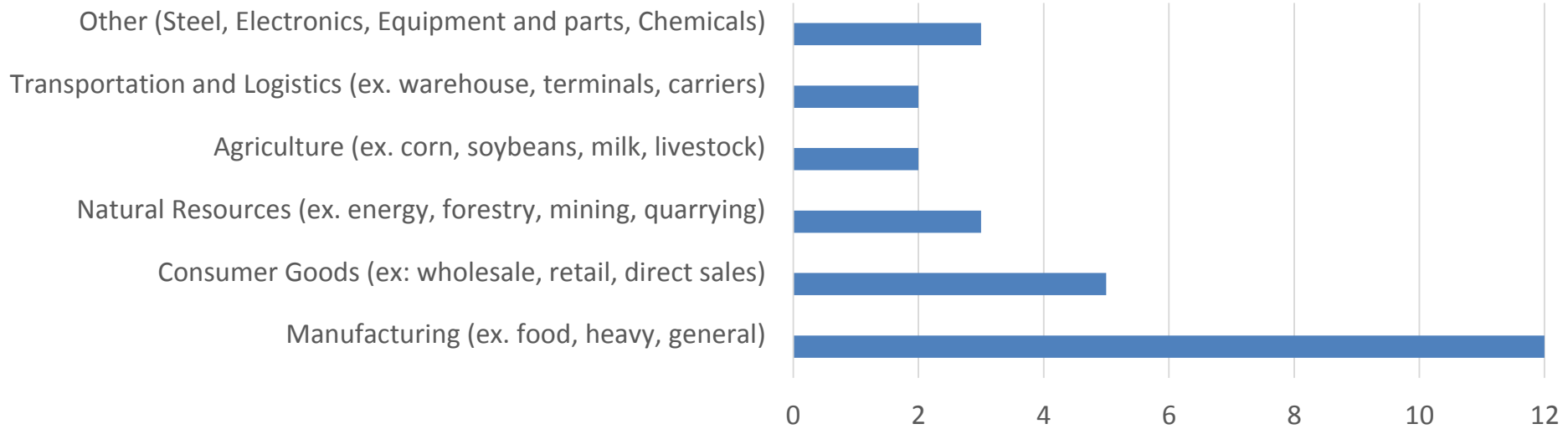


Industries Represented



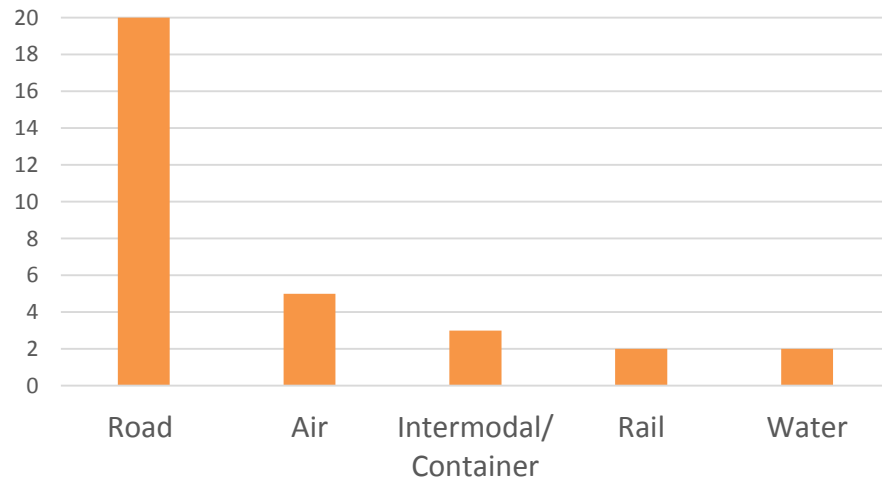
Industry Survey – Profile of Inbound Flows / Inputs

Types of Inputs Used

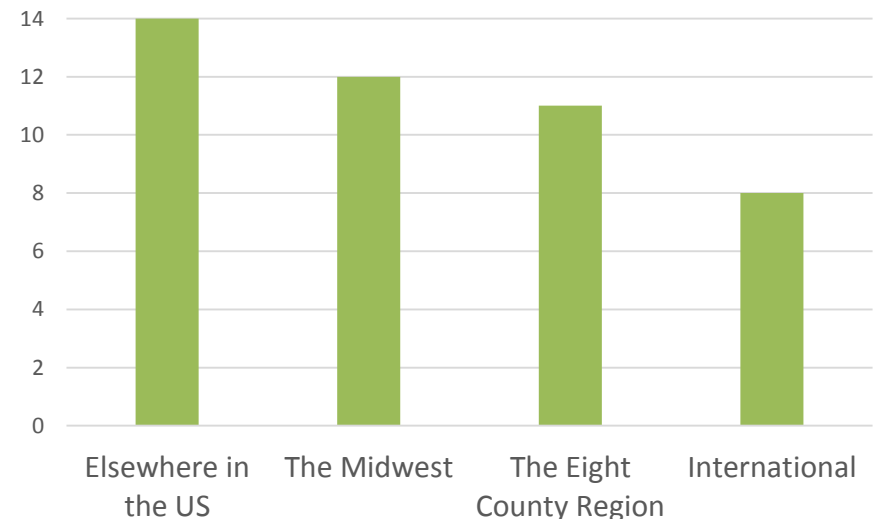


Modes of Transportation Used

All industries use road; 15 use road exclusively



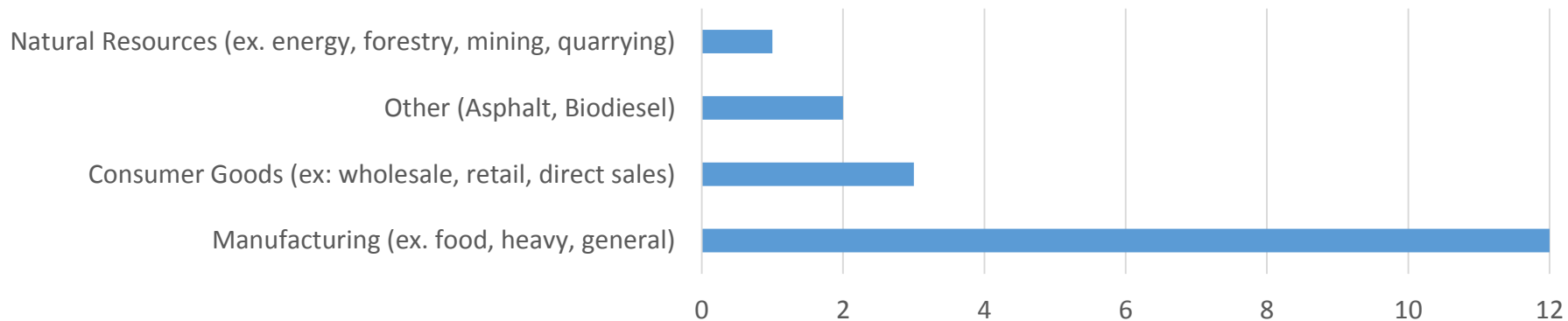
Origins of Inbound Commodities



Industry Survey – Profile of Outbound Flows

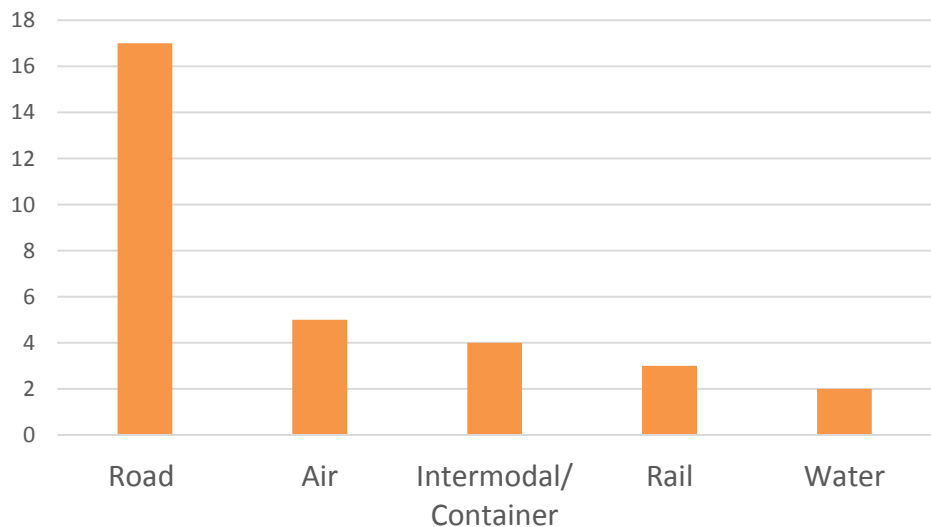
Types of Goods Produced

*(One company produces Manufactured and Consumer Goods;
For seventeen goods producing companies only)*



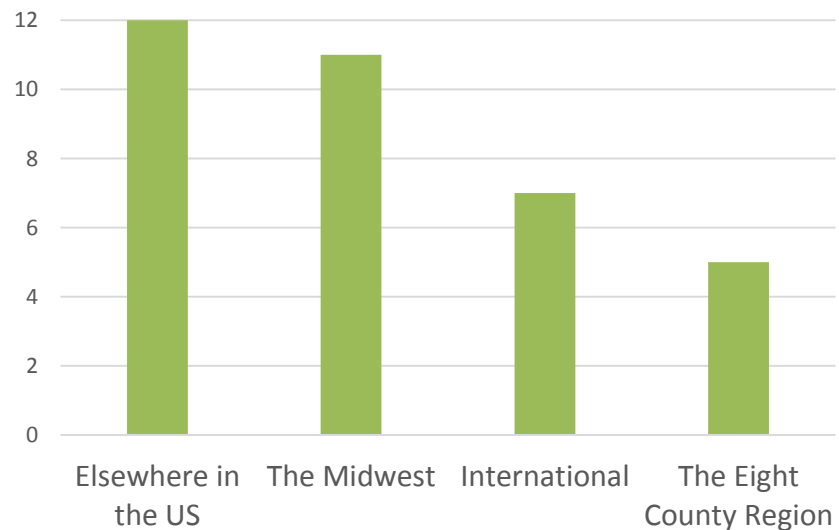
Outbound Modes of Transportation Used

(For 17 Goods-Producing Industries; all use road)



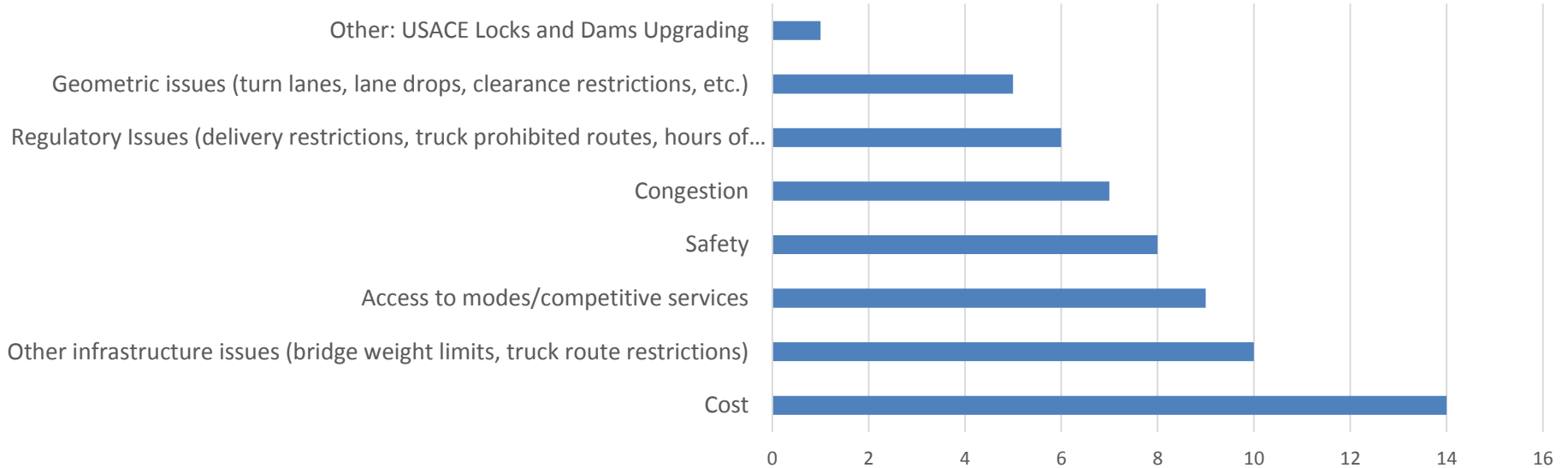
Destination of Outbound Commodities

(For 17 goods-producing companies only)

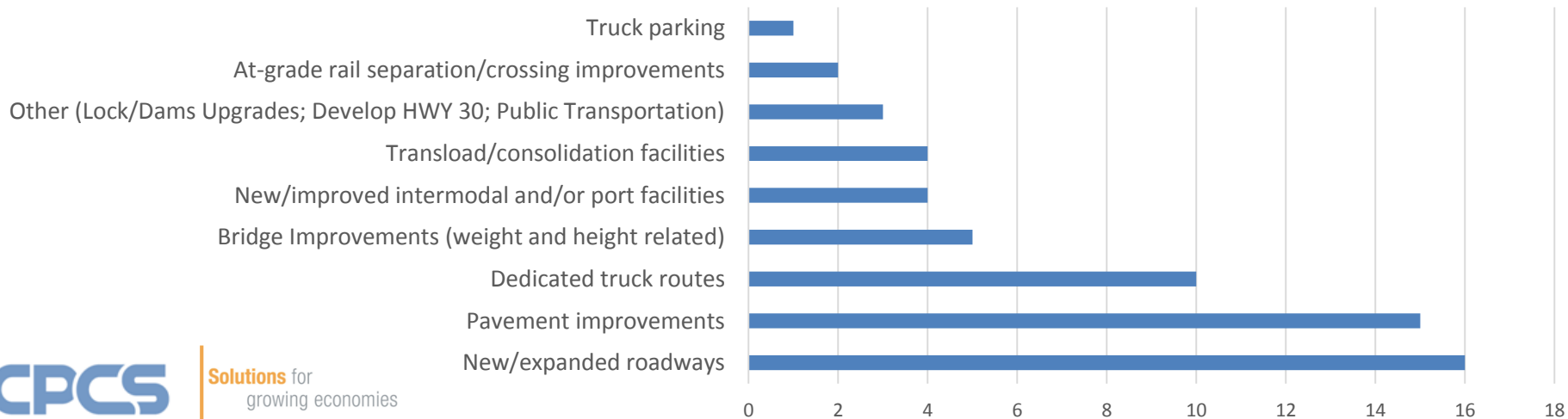


Industry Survey – Transportation System Performance

“Top 3” Transportation Issues in Eight County Region



"Top 3" Transportation Improvements to Help Competitiveness



- Industry advice for developing the Regional Freight Plan:
 - Road upgrades / re-surfacing / snow-clearing critical
 - Get out in the field and see conditions of bridges and roads
 - Encourage new generation of truck drivers
 - Develop transportation / logistics hubs that support transportation operations for multiple organizations
 - Increase infrastructure spending as a requirement for growth

What have you heard during your consultations?

- What are top industry issues/concerns?
- What transportation system improvements are most needed?
- What advice did they provide for us in developing the Eight County Freight Plan?

Please provide us your compiled results by April 14th

Presentation Map

Eight County Local Economy

Freight System Inventory

Visioning

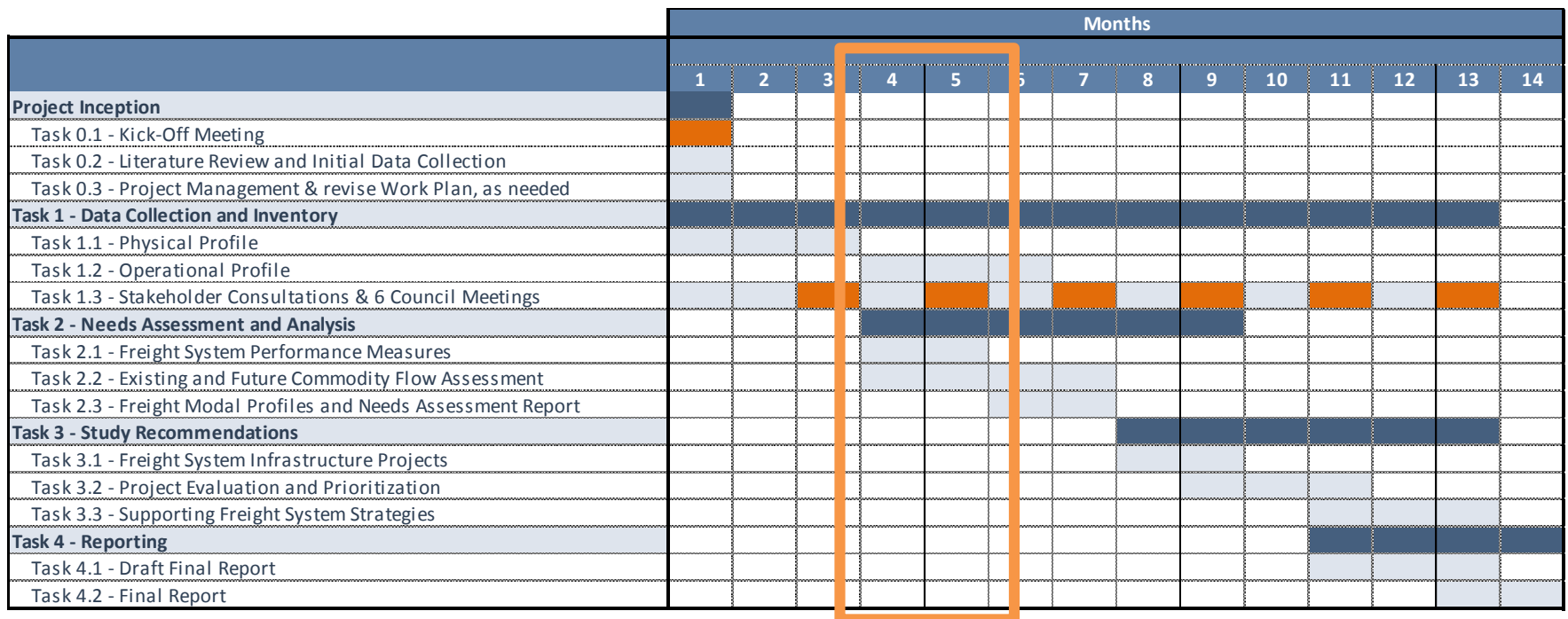
Stakeholder Perspectives



Questions & Discussion

Our Next Steps...

- Continue consultations
- Refine vision and develop performance measures
- Existing and future commodity flow assessment



Legend

Major Task Duration

Work Activity

Meeting

Thank You



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