State and District Freight Plans ISFAC Meeting

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Agenda

» Update on Freight Plan technical activities

» Provide background on Priority Freight Network methodology
  • Poll on weighting of metrics to determine Priority Freight Network

» Validate and review SWOT
  • Poll for additional strengths, weaknesses, opportunities and threats
  • Poll to select top 5 strengths, weaknesses, opportunities and threats

» Next steps
# State and District Freight Plans Status Update

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Defining the Priority Freight Network

**STEP 1** Define the metrics and identification methodology

**STEP 2** Present the identification methodology to IDOT and the Freight Advisory Council

**STEP 3** Adjust the factor weighting, key metrics, or methodology based on feedback

**STEP 4** Review results and produce draft PFN
Defining the Priority Freight Network

Priority Freight Network (PFN)

Based on National Multimodal Freight Network

Priority Freight Network for Non-Highway Modes

Priority Rail Freight Assets

Priority Maritime Freight Assets

Priority Air Cargo Assets

Economic Competitiveness Analysis

Goods Movement Analysis

Strategic Supply Chain Analysis

Market Access and Connectivity

Illinois 2022 State Freight Plan
Priority Freight Network for Highways

Economic Competitiveness Factors
Examines demographic preparedness, freight intensity and supporting industries.

- Population Growth
- Workforce Size
- Educational Attainment
- Freight Employment Intensity
- Key Military Facilities
- Key Transportation Distribution, Logistics Facilities
- Pipeline Facilities
Priority Freight Network for Highways

**Economic Competitiveness Factors**
Examines demographic preparedness, freight intensity and supporting industries.

**Goods Movement Factors**
Metrics covering tonnage, value, and volume of goods moving across the state.

- Average Annual Heavy Commercial Volumes
- Truck Vehicle Miles Traveled (VMT)
- Truck VMT by Lane Mile
- Percent Truck
- Total Tonnage
- Total Value
Priority Freight Network for Highways

- Economic Competitiveness Factors
  Examine demographic preparedness, freight intensity, and supporting industries.

- Goods Movement Factors
  Metrics covering tonnage, value, and volume of goods moving across the state.

- Strategic Supply Chain Factors
  Provides understanding of how businesses move goods between suppliers, producers, distributors, and final consumers.

- Support of Freight-Generating Strategic Industries
  - Freight-Generating Strategic Industries businesses
  - Employment Size Freight-Generating Strategic Industries businesses

- Support for Commodities Associated with Targeted Industries (Tonnage)
- Support for Commodities Associated with Targeted Industries (Value)

Illinois 2022 State Freight Plan
Freight-Generating Strategic Industries

» Strategic Industries:
  • Sourced from Illinois Department of Commerce and Economic Opportunity’s target industries
  • Focused on freight-generating industries
Priority Freight Network for Highways

- **Economic Competitiveness Factors**: Examines demographic preparedness, freight intensity and supporting industries.
- **Goods Movement Factors**: Metrics covering tonnage, value, and volume of goods moving across the state.
- **Strategic Supply Chain Factors**: Provides understanding of how businesses move goods between suppliers, producers, distributors, and final consumers.
- **Market Access & Connectivity Factors**: Evaluates intermodal connectivity, connectivity (connections to rail, pipeline, airport, etc.) to trading partners and international gateways.

- Intermodal Connectivity
- High-Diversity Market Gateway Access: TTT from marine port terminals
- Market Gateway Access: TTT from inland and multimodal port terminals (truck, rail, airport) and key state markets

Illinois 2022 State Freight Plan
Priority Freight Network for Highways

**Economic Competitiveness Factors**
Examines demographic preparedness, freight intensity and supporting industries.

**Goods Movement Factors**
Metrics covering tonnage, value, and volume of goods moving across the state.

**Strategic Supply Chain Factors**
Provides understanding of how businesses move goods between suppliers, producers, distributors, and final consumers.

**Market Access & Connectivity Factors**
Evaluates intermodal connectivity, connectivity (connections to rail, pipeline, airport, etc.) to trading partners and international gateways.
Weighting of the Criteria

» Currently the four factor categories are equally weighted – 25% each

» Need your input – should some analyses/metrics be weighted more heavily?
Should the following metrics for the Priority Freight Network identification be weighted...

- Economic Competitiveness Factors: 2.7
- Goods Movement Factors: 3.5
- Strategic Supply Chain Factors: 3.4
- Market Access & Connectivity Factors: 3.4
Review SWOT Analysis Worksheet
**SWOT Analysis**

**Strengths**
- Competitive advantages that should be marketed and built upon for future growth.

**Weaknesses**
- Areas that need to be improved upon.
- These are the operational goals that should be pursued in the near-term.

**Opportunities**
- Positive social, political, environmental and economic factors that affect IL freight transportation system.
- Opportunities can be leveraged for future growth.

**Threats**
- Negative social, political, environmental and economic factors.
- Threats can negatively impact future growth and constrain opportunities and should be monitored.
Review Strengths

Coordination
1. Coordination on freight needs and freight planning between divisions at District Office level

Funding
2. Financial partner for rail freight projects
3. ICC grade crossing protection program
4. Provides competitive funding opportunities for freight projects
5. Rebuild Illinois capital funding
Review Strengths

Planning

6. Supports local and regional freight studies
7. Prioritizes freight bottlenecks in plans
8. Getting local input into planning
9. Regular freight planning
10. Freight issues/needs accounted for in project staging, TMPs, and work zones
11. Involving all stakeholders willing to participate/seeking input from ISFAC
12. Recognizes the multi-modal system
13. Corridor planning, including freight
14. Recent studies on truck bottlenecks and truck parking
15. Illinois MTS Plan provides map for waterway program enhancement
Review Strengths

System

16. Electronic permitting/Discussions with OS/OW carriers noted that communications from the permit officer were some of the best in the nation.

17. 90% of major highways and bridges meet asset condition goals

18. Location and airport facilities support role as regional air cargo hub

19. Quick and easy entry into rail-to-river access points is a competitive advantage for smaller railroads as it can help them appeal to additional customers.

20. Traffic Management Centers in key metropolitan areas and statewide support incident management on key freight routes to resolve disruptions and delays.
What are other additional strengths?

- Multi-modal coordination
- River was listed, but Illinois likely is the #1 in the nation in terms of navigable river miles
- 58
- 77
- 10
- 12
- 1
- 18
What are the top 5 strengths for IL to market? Pick and list the numbers only.

1. Coordination on freight needs and freight planning between divisions at District Office level
2. Financial partner for rail freight projects
3. ICC grade crossing protection program
4. Provides competitive funding opportunities for freight projects
5. Illinois capital funding

6. Supports local and regional freight needs
7. Realizes freight bottlenecks in planning
8. Getting local input into planning
9. Regular freight planning
10. Freight issues are addressed for project staging, I-90 and work zones
11. Involving of stakeholders willing to participate and support input from ITC
12. Recognizes the multi-modal system
13. Collier planning, including freight
14. Recent studies on truck bottlenecks and truck parking
15. Illinois I95 Plan provides tools for cityway program enhancement
16. Electronic permitting discussions with CDOT co-ops reveals that Illinois I95 permit office were some of the best in the nation.
17. 90% of major highways and bridges meet most federal condition goals
18. Location and airport facilities support role as regional air cargo hub
19. Quick and easy access to Class-I rail access points is a competitive advantage for Illinois (as it can help them appeal to additional customers)
20. Traffic Management Centers in key metropolitan areas and statewide freight management key to success
21. Other

21 inland waterway
Review Weaknesses

Coordination

1. Lack of coordination between jurisdictions and agencies
2. Lack of coordination across modes
3. Need to approve project procurements and complete engineering reviews more timely
4. Need to coordinate permitting for jurisdictions
5. Lack of response from utilities, pipelines, RRs
6. RR agreements on public infrastructure projects and the ICC process, including requirements to pay for RRs for plan reviews
Review Weaknesses

Data
7. Little or no commodity flow data provided to the District or local agencies
8. Lack of guidance from Statewide offices on how to use freight data in project/program planning
9. Need better freight OD data
10. Most truck crashes lack data about contributing factors

Funding
11. Limited allocation of funds
12. No coordination to identify opportunities to leverage federal funds
13. Need more funding for bridges and viaducts
14. Need for additional funding for ITS
Review Weaknesses

Planning

15. Need to integrate maritime and air cargo into planning
16. Geometric design standards need to take into account freight traffic
17. Need for programs to mitigate negative effects of freight on communities
18. Need for last mile consideration
Review Weaknesses

Policy

19. OS/OW carriers note that Illinois requires State Patrol escorts for many over-dimension loads. Adjacent states only require civilian escorts. The Illinois SP escort requirement has become more difficult due to staffing/resource limitations of the SP, especially during COVID. This has resulted in longer wait times for some loads at the state line.

20. OS/OW carriers noted that blades are unable to travel on Saturdays while the remaining components are allowed to travel causing scheduling issues at the project sites.

21. Illinois regulations hurt business

22. Doubling of motor fuel tax without seeing improvement in the state system (interview)

23. Half of worker compensation cases in Illinois are fraudulent (interview)

24. DBE program requirements raise costs but lower service (interview)
Review Weaknesses

Safety
25. Truck crashes have been rising compared with 2015

System
26. Lack of truck parking and limited real-time information on availability
27. Damage to ROW and safety risks of trucks parking on shoulders
28. Functionally obsolete bridges
29. Need to include load clearances for ICC crossings in the automated permit system
30. Need to address rail congestion hot spots
31. Need for EV infrastructure for freight delivery vehicles
Review Weaknesses

System (continued)

32. Significant roadway congestion in urban areas, especially in Chicago where major intermodal infrastructure is located

33. Limited space for additional air cargo support facilities at airports

34. Adequate maintenance of local roads can be a weakness for truck operations as poorly maintained roads around barge facilities can damage trucks and cargo or require trucks to take longer routes

35. OS/OW carriers noted low overhead clearances on older structures

36. Closing of Interstate routes during construction instead of using cross-overs to keep corridors open

Workforce/Staff

37. Lack of staff to develop and deliver projects
What are other additional weaknesses?

- adding funding for TSP that could move roadway traffic more efficiently
What are the top 5 weaknesses for IL to address?
Pick and list the numbers only
Review Opportunities

Economic

1. Continued growth of ecommerce and air cargo

Funding

2. Infrastructure Investment and Jobs Act
Review Opportunities

System

3. Roadway improvements performed under Access Permits as part of freight facility developments (truck stops, intermodal and distribution centers, etc.)

4. Commercial services like truck stops that offer ancillary benefits like truck parking

5. Access to all 7 Class I railroads, with regional and short line railroads that offer online shipper access to many of these railroads

6. Support not only logistics industry, but also efforts to take advantage of this through value added services

7. Illinois has four marine highways, Mississippi and Ohio Rivers, Illinois waterway system and Lake Michigan

8. Consider designating some corridors that move a lot of over-dimension cargos as “super-haul corridors” where future improvements would consider designs to accommodate over-dimension load
Review Opportunities

Technology

9. Truck electrification

10. Further developments in truck automation (self-driving, truck platooning)

11. Utilizing lane technology and in-cab cameras can improve safety and provide evidence in case of crashes
What are other additional opportunities?

- Identification of rail-served and/or mega-site locations in the state
- Improved freight mobility with advancement of CREATE projects to unlock freight bottlenecks
What are the top 5 opportunities for IL to leverage? Pick and list the numbers only

**Economic**
1. Continued growth of e-commerce and air cargo
2. Infrastructure Investment and Jobs Act
3. Roadway improvements performed under Access Permits as part of freight facility developments (truck stops, intermodal and distribution centers, etc.)
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**Technology**
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9. Further developments in truck automation (self-driving, truck platooning)
10. Utilizing lane technology and in-cab cameras can improve safety and provide evidence in case of crashes
11. Other
12. Rail served sites

1. 4
2. 8
3. 9
4. 10
5. 11
6. 12
Review Threats

Economic
1. Supply chain disruptions
2. Economic downturns/uncertainty
3. Trade wars/tariffs
4. Growing number/density of distribution centers
5. Utility cost inflation/uncertainty

Environmental
6. Flooding/resiliency
7. Threat of Invasive Asian carp – mitigation efforts risk to disrupt the freight movement
8. High water levels are a threat to Great Lakes terminal operators due to increased damage inflicted by storms
Review Threats

Political/Social

9. Lack of community consensus on how to best accommodate freight

10. Complexity of federal grant requirements

11. Increasingly, if distribution of freight benefits and freight impacts is seen to be inequitable, it can impact development of capacity and services

System

12. Seasonal congestion at grain processing facilities

13. Increased rail freight traffic leading to additional grade crossing blockages

14. Aging lock and dam system, most locks and dams were built between 1940-1960
Review Threats

Technology

15. Truck electrification. One carrier noted the loss in 4-5 tons per payload due to weight of e-truck is an issue along with the lack of range

16. Natural gas trucks lack of engine longevity

Workforce/Staff

17. Warehousing and distribution labor shortages to support air cargo

18. Truck driver shortage
What are other additional threats?

Extreme Weather - Variability related to drought and low river levels
What are the top 5 threats for IL to monitor? Pick and list the numbers only.
Next Steps

» Continue to develop technical material (Winter and Spring)
  • Modal Profiles, Priority Freight Network Identification, Commodity Flow Forecasting and Needs Assessment

» District Freight Forums (Later Winter / Early Spring)
  • Identify additional needs, system gaps and conduct district level SWOT analysis

» Stakeholder Survey (Spring)
  • Current state of freight infrastructure and operations, identifying challenges and trends, carbon reduction strategies and understanding impacts of pandemic
Thank you