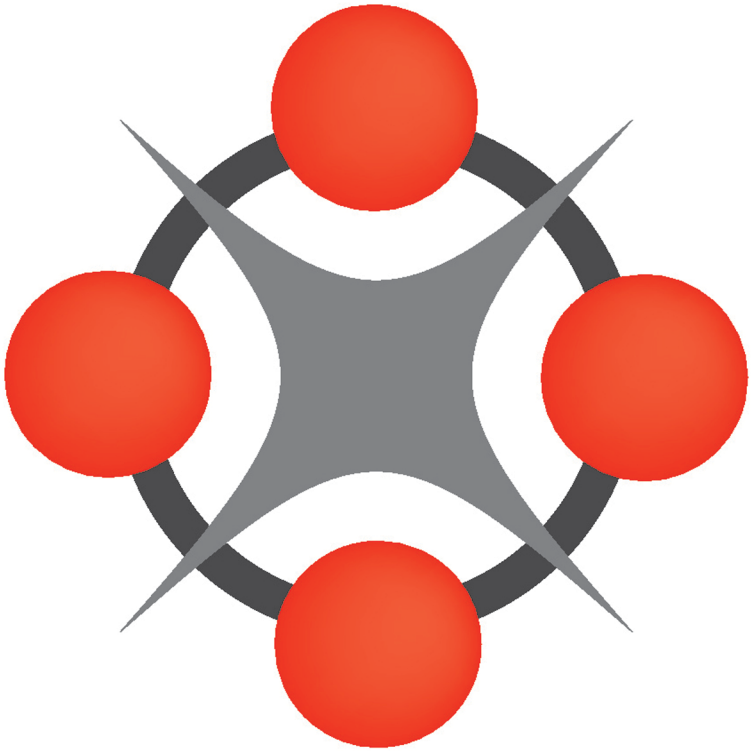
Critical Rural Freight Corridors Designation: Implications of Truck Percentage Calculation



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Outline

- National Freight Network
- Critical Rural Freight Corridors (CRFCs)
  - Criteria
  - Policy Alternatives
- Comparative assessment
- Observations

National Freight Network

- MAP-21
- National Freight Network
  - Primary Freight Network (PFN)
  - Rest of the interstate system
  - Critical Rural Freight Corridors (CRFC)
- Assist states in strategically directing resources to improve system performance

CRFC

- Three designation criteria
  - Rural principal arterial with at least 25% annual average daily truck traffic (AADTT) using passenger car equivalent (PCEs) units
  - Provides access to energy exploration, development, installation, or production areas
  - Connects the PFN or interstate to a facility handling >50,000 TEUs or 500,000 tons of bulk commodities

Individual Segments Over 25 % Truck

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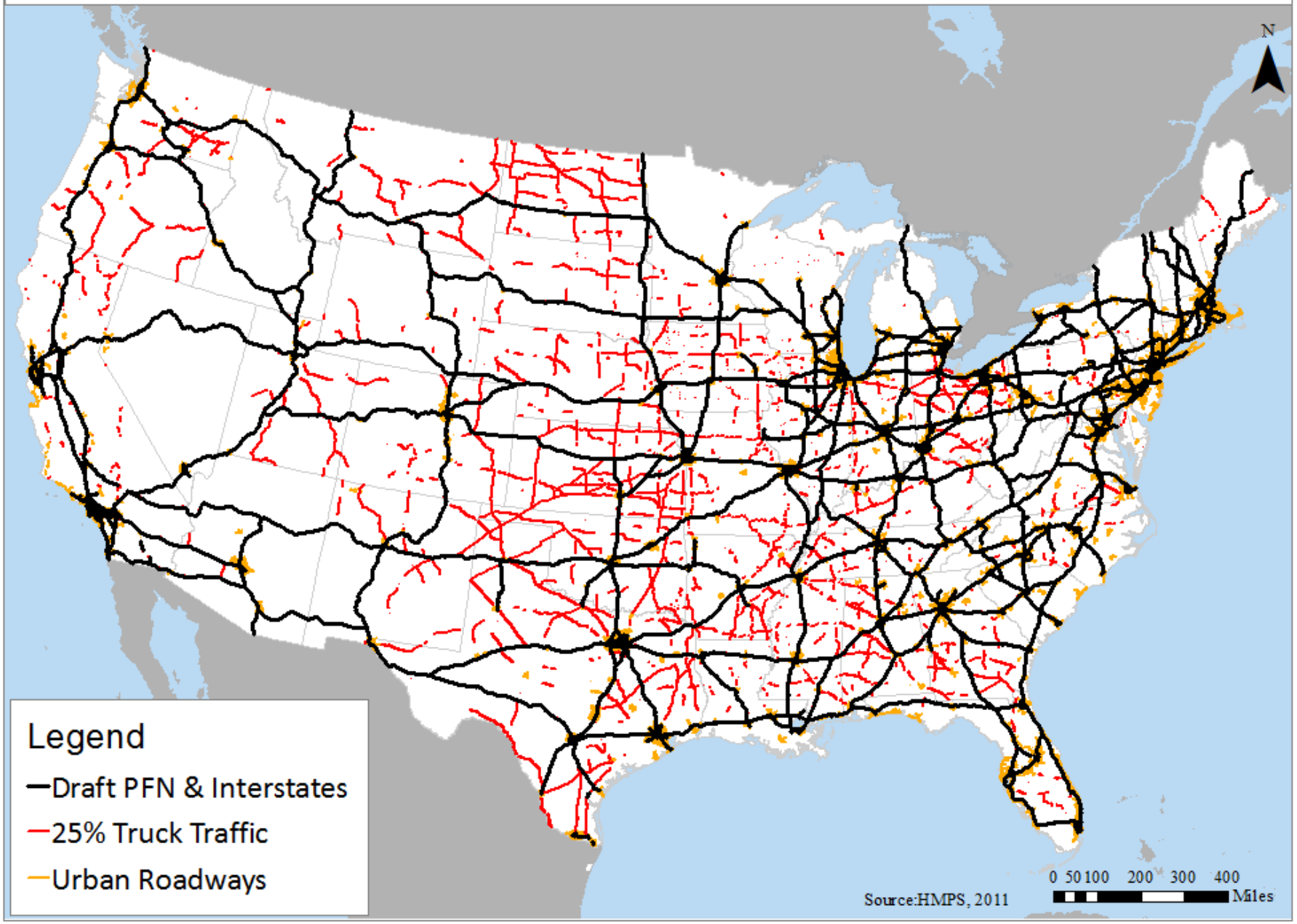


Approaches

- Three approaches
  - Segment
  - Mileage
  - Corridor
- Assumptions
  - State DOT perspective
  - 2.5 PCE value

Segment Approach

- Segment
  - Calculate segment truck percent
  - Count segments with at least 25% trucks
  - Minimum 50% of segments must at least 25% truck

Number of segments with at least 25% trucks/
Total number of roadway segments

Mileage Approach

- Mileage
  - Calculate segment truck percent
  - Add segment length of all segments with at least 25% trucks
  - Minimum 50% of miles must at least 25% truck

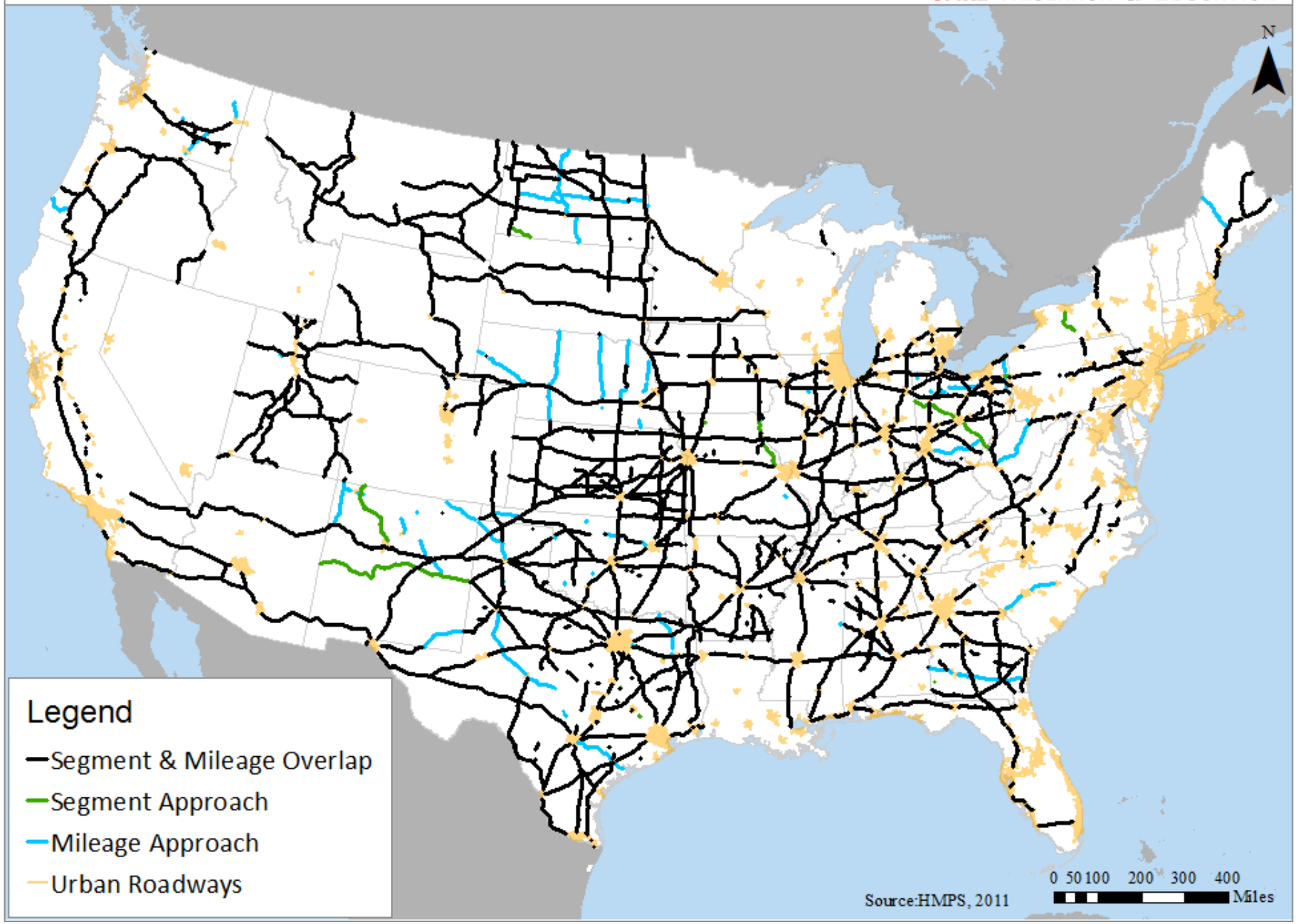
Number of miles with at least 25% trucks/Total number of roadway miles

Corridor Approach

- Corridor
  - Calculate weighted average of AADTT
  - Calculate weighted average of AADT
  - Minimum 25% truck

  Weighted Average of AADTT/Weighted Average of AADT =Corridor Percent Truck

Mileage and Segment Approach Comparison



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Corridor, Mileage, & Segment Approach Comparison

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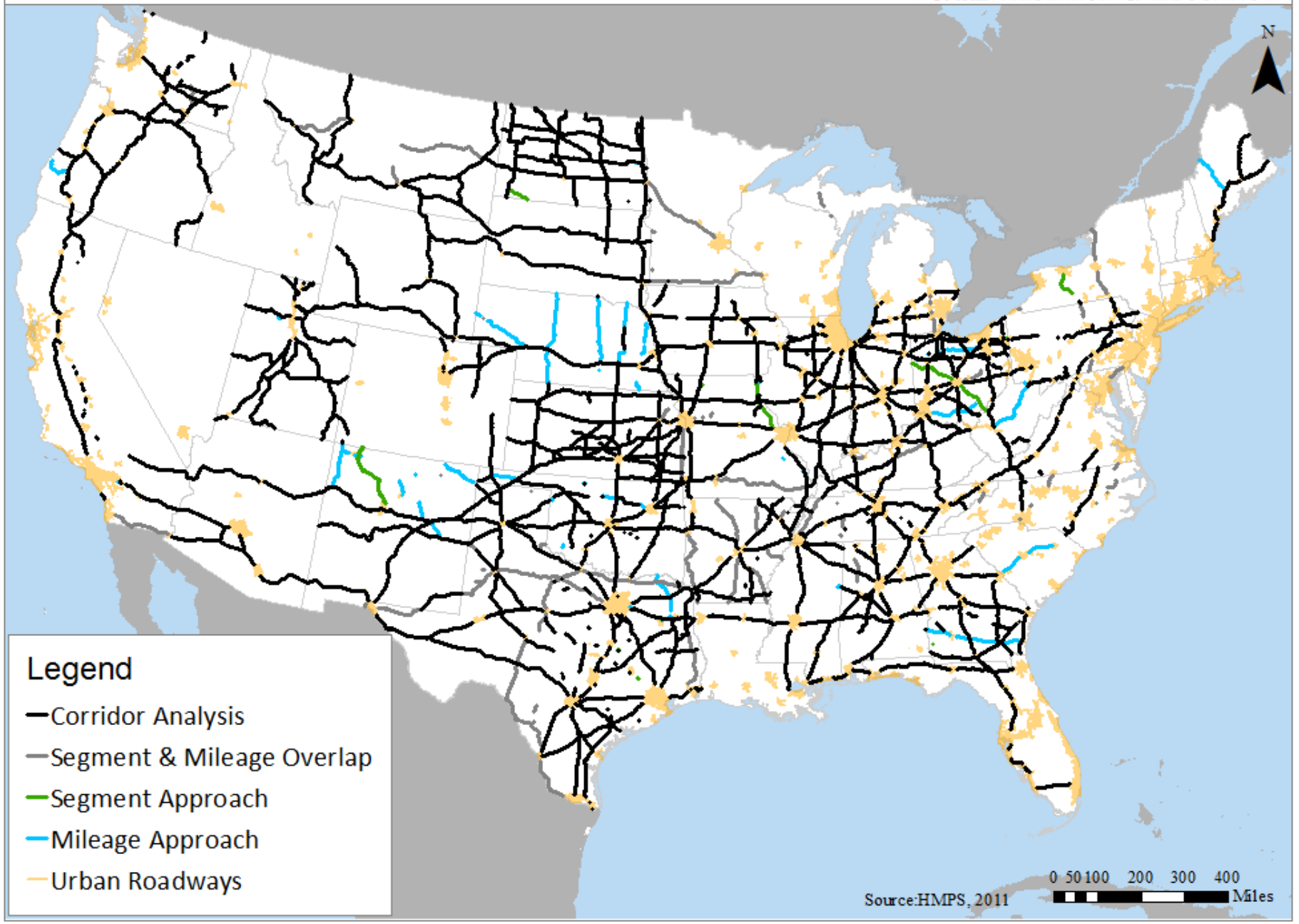


Comparative Assessment

- Categories
  - Robustness
    - Errors
    - Assumptions
  - Network Connectivity
    - Freight intermodal connectors
    - Interstate connections
  - Mileage Distribution
    - Mileage outside the interstate system

Approach Comparisons

Table 1: Mileage Distribution

	Segment Approach	Mileage Approach	Corridor Approach
Interstates Miles (% of total)	25,287 (55.0%)	25,490 (51.6%)	23,951 (56.1%)
Principal Arterial-Other Freeways and Expressways Miles (% of total)	1,919 (4.2%)	1,928 (3.9%)	1,423 (3.3%)
Principal Arterial-Other Miles (% of total)	18,791 (40.9%)	21,938 (44.4%)	17,295 (40.5%)
Total Miles	45,996	49,357	42,670

Table 2: Robustness and Network Connectivity

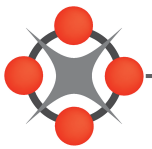
	Segment Approach	Mileage Approach	Corridor Approach
Robustness	Fair	Excellent	Good
Unique Interstate Intersections	42	43	40
Total Interstate Intersections	124	146	123
Intermodal Connectors Within 15 Miles	202	206	190

Conclusions

- Mileage approach for now
  - Corridor has distinct methodological advantages
- Rule making matters
  - Involvement!!!
  - Substantive comments
- Data Data Data Data
  - HPMS improvements
  - HPMS roadway classification
  - AADTT vs truck miles
- State perspective limits regional flows
  - Casualty of state designation

Critical Rural Freight Corridors

- 25% Truck Traffic
  - Multiple calculation methods
    - Segment
    - Corridor average
    - Weighted average
- Different Methods=Different Networks
  - Multimodal connections
  - Number of miles
  - Corridor connectivity



Implementation Matters

- Limited Guidance from Congress
  - Implementation drives program outcomes
- US DOT Fills Gaps in Legislation
  - Solicits comments from stakeholder
- Early Involvement
  - State and regional stakeholders
  - Data validation