Assessment of Multimodal Freight Bottlenecks and Alleviation Strategies for the Upper Midwest Region

Project Update for the MVFC Annual Spring Meeting
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MVFC Bottlenecks Project

- Research goals
- Project components & processes
- Current status of the project
- Next steps
- Questions

Images:
www.rbmcarriers.wordpress.com
www.automatedtransport.com
www.matrixgreatescape.wordpress.com

Research Goals

- Identify freight bottlenecks on regionally significant routes along highway, rail and port networks
- Develop inventory of planned alleviation projects
- Recommend additional solutions for the region

Project Components & Processes

1. Literature review
2. Engage public & private stakeholders
3. Create analysis framework
4. Create Decision Support System (DSS)
5. Develop recommendations
6. Submit report

Images:
www.speederbeater.com
www.sendandreceive.blogspot.com

1. Literature Review

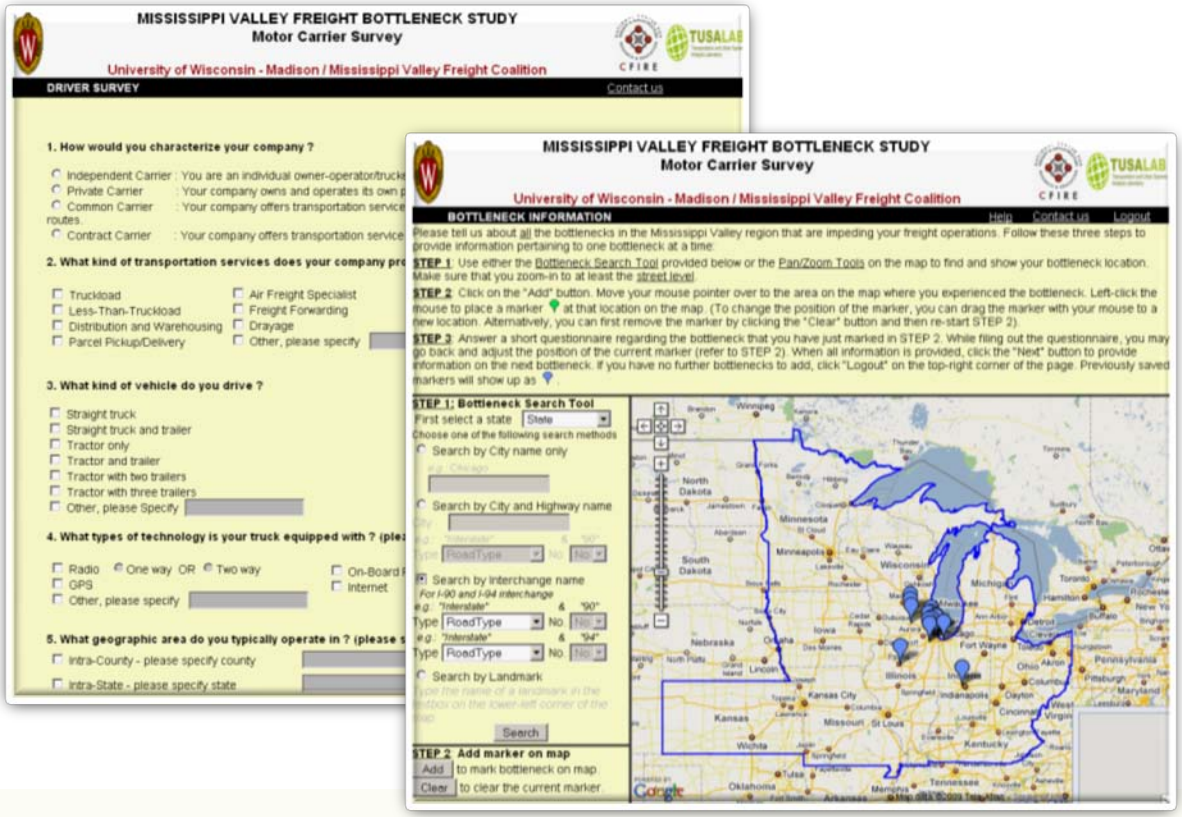
- Cambridge Systematics reports
  - Previous analyses w/ Ohio DOT,
- American Transportation Research Institute (ATRI),
- American Association of Railroads, etc.

2. Stakeholder interviews

- Public sector- DOTs
  - Phone interviews, data requests
  - Assessment of known bottleneck locations and current freight planning initiatives
- Private sector- MCAs, RRs, drivers
  - Outreach- online survey
  - Regional trucking industry events

2. Stakeholders (cont'd)

- Web survey: http://tusal.cee.wisc.edu/bottleneck/



2. Stakeholders (cont'd)

- Alleviation projects and studies
  - Determined through interviews
  - Additional information via DOT websites
- Reporting:
  - Extent
  - Goal
  - Committed funding
  - Schedule & status
  - Bottlenecks addressed

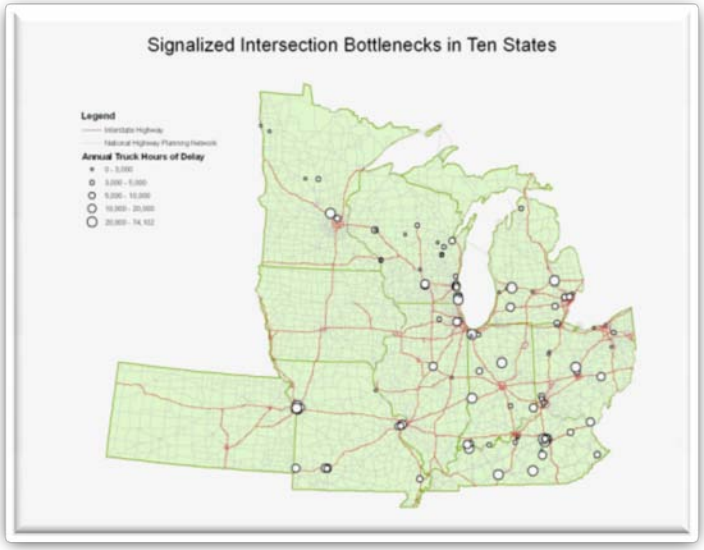
3. Analysis Framework

- Data standardization issues
- Objective: advance previous bottleneck identification efforts at the regional level
- Iterative process
  - Dialogue with stakeholders
  - Feedback > refined analysis

Images:
www.theage.com.au
www.technokimchi.com

3. Analysis (cont'd)

- Four Bottleneck types:
  - Interchange
  - Lane Drop
  - Signalized Intersection
  - Steep Grade



- Assessment sent to DOTs in February
  - Comments, questions, concerns…

3. Analysis (cont'd)

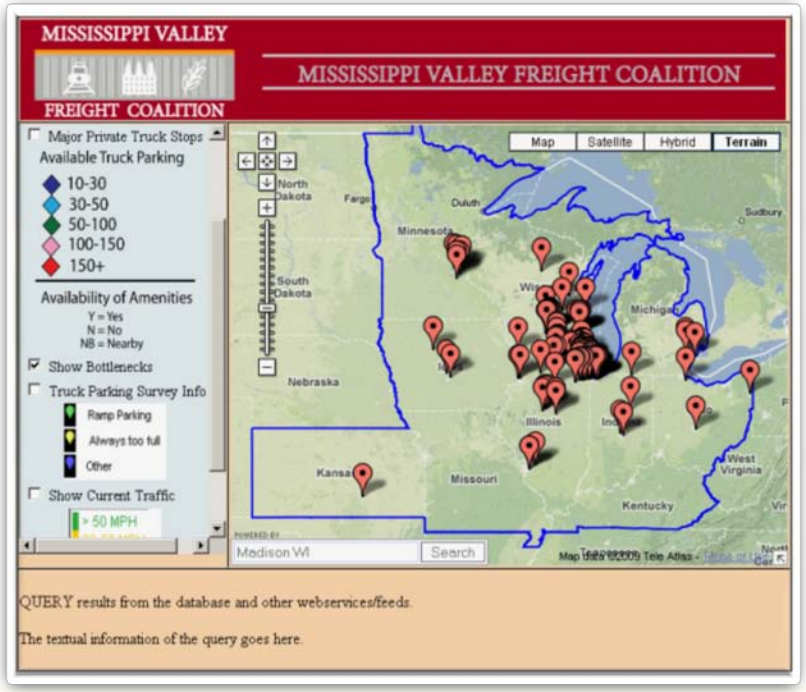
- Railroads
  - Concerns regarding proprietary data
  - Case studies
- Ports
  - Regional network running under capacity?
- Lack of detailed data
  - Difficulty inferring delay with unified approach

4. Online DSS Tool

- Web-based bottleneck mapping tool
  - Objective: to integrate analyzed locations, alleviation projects, user-generated input
- Leveraged work of Clearinghouse project as the prototype interface
- Prototype:
  - http://freight.engr.wisc.edu/travel5.html

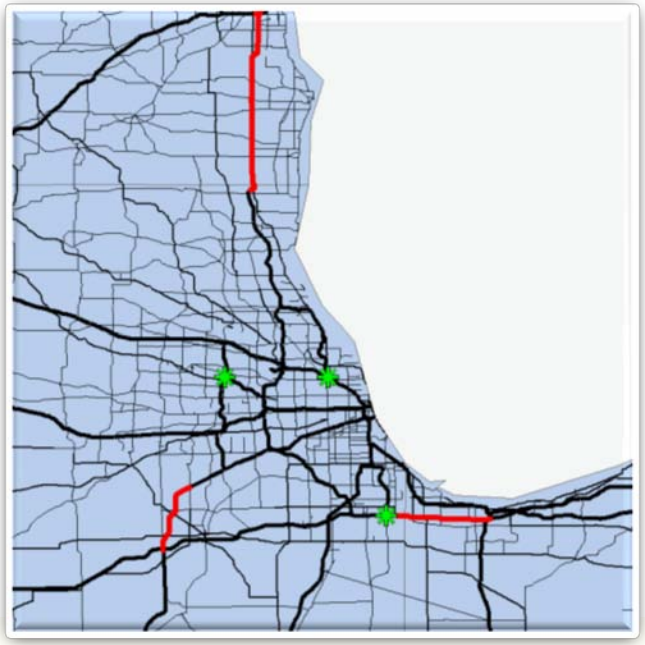
4. Online DSS Tool (cont'd)

- Web survey input locations
- GIS analysis locations
- Projects & studies



5. Recommendations

- Collecting information from suggestions of stakeholders
- Comparing projects to identified bottleneck locations to see how well they correlate



5. Recommendations (cont'd)

Star Tribune

Third Lane in St. Louis Park has Eliminated a Bottleneck

THE PLAIN DEALER

The Inner Belt Bottleneck

Chicago Tribune

Highway Bottleneck to be Fixed

ST. LOUIS POST-DISPATCH

Edwardsville Bottleneck is Targeted

CHICAGO SUN-TIMES

Suburbs Push for Underpass to Ease Rail Bottleneck

The Columbus Dispatch

Highway Bottleneck a Source of Concern

The Detroit News

State Set to Uncork Big I-96 Bottleneck

Dayton Daily News

The Mouth of the Bottleneck; I-75 Congestion Imperils Area Economy

Questions / Discussion

Thank you for your support of the MVFC Bottleneck research project