DATA NEEDS TO ADDRESS EMERGING ISSUES

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Issue: Justifying Freight Investment

- Difficulty Justifying Projects
  - causes
  - Problems in B-C Analysis
    - causes
  - Data Collection Deficiencies
Why is Freight Data an Issue?

- Cargo doesn’t vote
- Cargo doesn’t talk*
- Urban transport planning methods aren’t well set up to track freight
- Value of time delay is poorly documented
Illustrations of the Problem

- Airport & Highway Tradeoffs to Support Globalized Auto Cluster
- Inter-City Truck Access to Support Regional Development
- Rail Yard Improvements to Reduce Urban Road Congestion
- International Trade Facilities to Enhance Regional Economy
Case 1: Cargo Airport

- Janesville, WI - general aviation airport
- Serving regional automotive mfg cluster
  - Auto Mfg – GM, Chrysler
  - Parts Mfg – Power Coatings, Macon Metal Products, Reynolds Wheels, SSI/Timken, Lear
  
  - outbound to S Carolina (BMW), Mexico & Mich. (Ford), Ontario & Missouri (Chrysler)
Issue: Just-in-Time Manufacturing

- Growing reliance on just-in-time mfg is increasing needs for parts shipped by air
  
  *(Faulty Calipers, Engine Parts, Seat Parts, Axles)*

- Current facilities cannot meet this need

- Result – Loss of efficiency in mfg, and potential loss of jobs to Mexico or Canada

Can new runway and road be justified?
Data Needs

- **JIT:** Frequency of Emergency Air Shipments
- **JIT Cost:** Plant Slowdown
  
  *Lost Production, Idle Workforce, Excess Transport Costs*

- **O-D Pattern of JIT Air Cargo**
  
  68% incoming delivery to two area auto plants
  
  28% outgoing delivery to auto plants in Canada, Mexico, Michigan, Missouri, and South Carolina
Result: Multi-Modal Freight Access

- Road Delay
- Rail Delay
- Airport Constraints

- Airport Improvements ($9.1 million)
- Highway Access & Rail Crossing Improvements ($13.5 million)
Case 2: Economic Development

KY 69 Study – Highway for Economic Development

- Auto at Evansville
- Toyota near Evansville
- Auto at Owensboro
- Metal near Owensboro
- PAPER
- W. KY Parkway
- Natcher Pkwy
- WOOD
- Lexington
- Toyota near Bowling Green
- Auto near Bowling Green
- Ford at Louisville
- GM near Bowling Green
-金属
-金属
Issue: Benefiting Industries

- What industries can gain labor market access?
- What industries can gain materials/supplier access?
- What industries can gain customer delivery access?
Data Needs

Survey of Shippers: Reliance on Hwy Corridor

- Machinery
- Metals
- Clay, Abrasive
- Wood/Paper
- Food
- Mining

- Workers
- Deliveries
- Supplies
Result: Benefit-Cost Analysis

- Growth of Consumer & Labor Markets (45 min)
- Growth of Supplier (Parts) Market (3-4 hrs)
- Growth of Regional Tourism Market (2 hrs)
- Change in Access to Airports, River Ports

Business Growth Opportunities Model

ARC version: “HWY-OPPS” MODEL
Case 3: Urban Rail Yard Plans

Economic Impact of Rail Freight in Chicago

- Base Case
- Intermodal to Rim
- Consolidation
- Bypass Chicago
Issue: Evolving Role of Rail Yards

- Abandoned & underutilized yards
  - Neighborhood complaints
- Thriving yards with truck traffic
  - Neighborhood complaints
- All types of rail yards
  - Developer Offers, Tax Base Pressure

What is the current and potential economic impact of rail yards, and how can policy affect it?
Data Needs

- **Cost model** - change based on shifts in rail & road VMT related costs
- **Modal diversion model** – based on distances, costs & operational factors
- **Surveys of shippers & carriers** – local shipment patterns, future options & expectations
- **Economic Impact Model** – business expansion, contraction, relocation
Results: Economic Impacts

Scenarios will affect...

- Availability of rail & intermodal options
- Operating cost of rail / intermodal facilities
- Business location viability and profitability
- Urban land values, use & development
- Jobs and tax base in the city
Case 4: International Trade

**Pre Sept.11**
- Move towards “frictionless economy”
- Growth of J-I-T Production & Logistics
- Free Trade – Easy Border Crossing

**Post Sept.11**
- Greater inspection & oversight (delay) for borders, rental trucks, parcels
- Implications for changing travel flows and economic growth
## Issue: Explaining Flows

### Exports from New England, via 184 Ports

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Data Needs

- Tracking *Domestic* ↔ *International* linkages
- Explaining *why* distant ports are used
- Understanding economic and travel *impacts* of border delays
Conclusions

Key Needs
- NOT more data
- But rather, more relevant data

Key Applications
- Understanding true costs of cargo delay
- Making intelligent multi-modal decisions