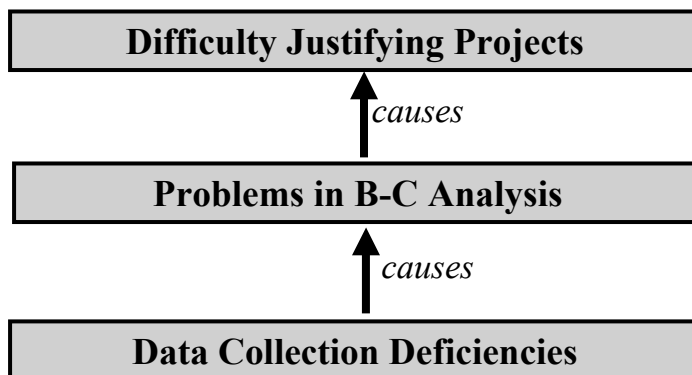


DATA NEEDS TO ADDRESS EMERGING ISSUES

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Issue: Justifying Freight Investment



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)**



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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?

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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



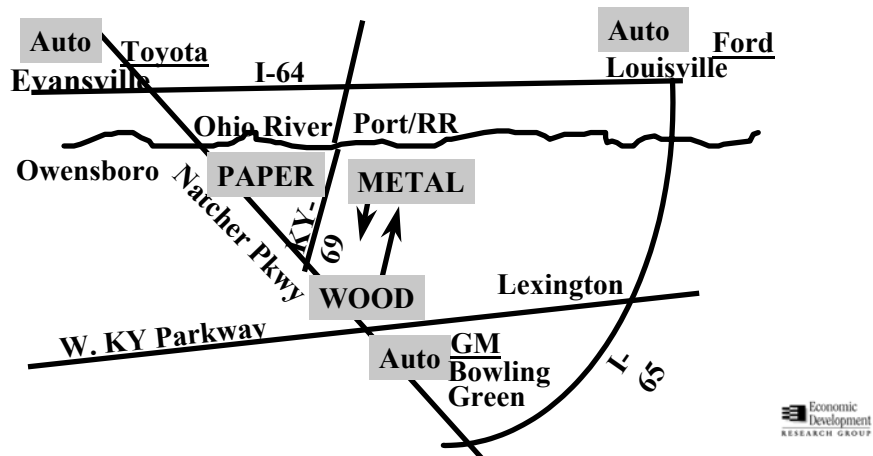
Airport Constraints



- **Airport Improvements (\$9.1 million)**
- **Highway Access & Rail Crossing Improvements (\$13.5 million)**

Case 2: Economic Development

KY 69 Study – Highway for Economic Development

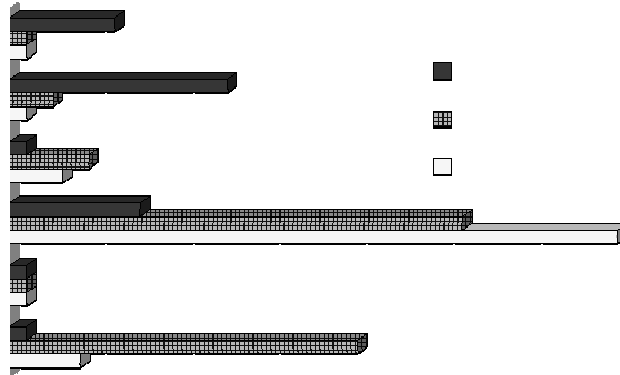


Issue: Benefiting Industries

- 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



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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

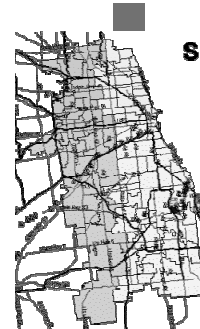
ARC version: "HWY-OPPS" MODEL

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Case 3: Urban Rail Yard Plans

Economic Impact of Rail Freight in Chicago

- **Base Case**
- **Intermodal to Rim**
- **Consolidation**
- **Bypass Chicago**



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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?

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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

Rank	Description	ANNUAL 2000
1	J.F.K. INT. AIRPORT, N.Y.	12,118,262,965.00
2	LOGAN AIRPORT-BOSTON, MASS.	5,513,694,872.00
3	HIGHGATE SPRINGS-ALBURG, VT	3,187,638,489.00
4	BUFFALO-NIAGARA FALLS, N.Y.	2,352,135,831.00
5	NEWARK, N.J.	1,877,880,677.00
6	NEW YORK, N.Y.	1,137,946,362.00
7	NEW ORLEANS, LA.	980,775,783.00
8	CHAMPLAIN-ROUSES PT., N.Y.	819,520,718.00
9	LAREDO, TEXAS	793,962,092.00
10	CLEVELAND, OHIO	707,987,596.00
11	PHILADELPHIA INT'L AIRPORT	571,986,414.00
12	BOSTON, MASS.	555,386,265.00
13	HARTFORD, CONN.	386,038,814.00
14	DETROIT, MICHIGAN	377,704,332.00
15	LOS ANGELES, CALIF.	358,467,637.00
16	DERBYLINE, VERMONT	332,167,653.00
17	ANCHORAGE, ALASKA	330,027,868.00
18	BURLINGTON, VERMONT	322,011,261.00
19	INDIANAPOLIS, IND.	313,938,043.00
20	CALAS, MAINE	305,807,913.00
21	S.F. INT. AIRPORT, CALIF.	294,425,469.00

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