

Unlocking the Potential of IMPLAN for Transport Impact Analysis

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Economic Development Research Group

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IMPLAN in Transport Assessment

Two kinds of impact studies:

(1) Impact of facility construction/operation/services

- transportation as direct economic activity
- used for airport, transit, ports, etc.
- counterfactual *or* predictive

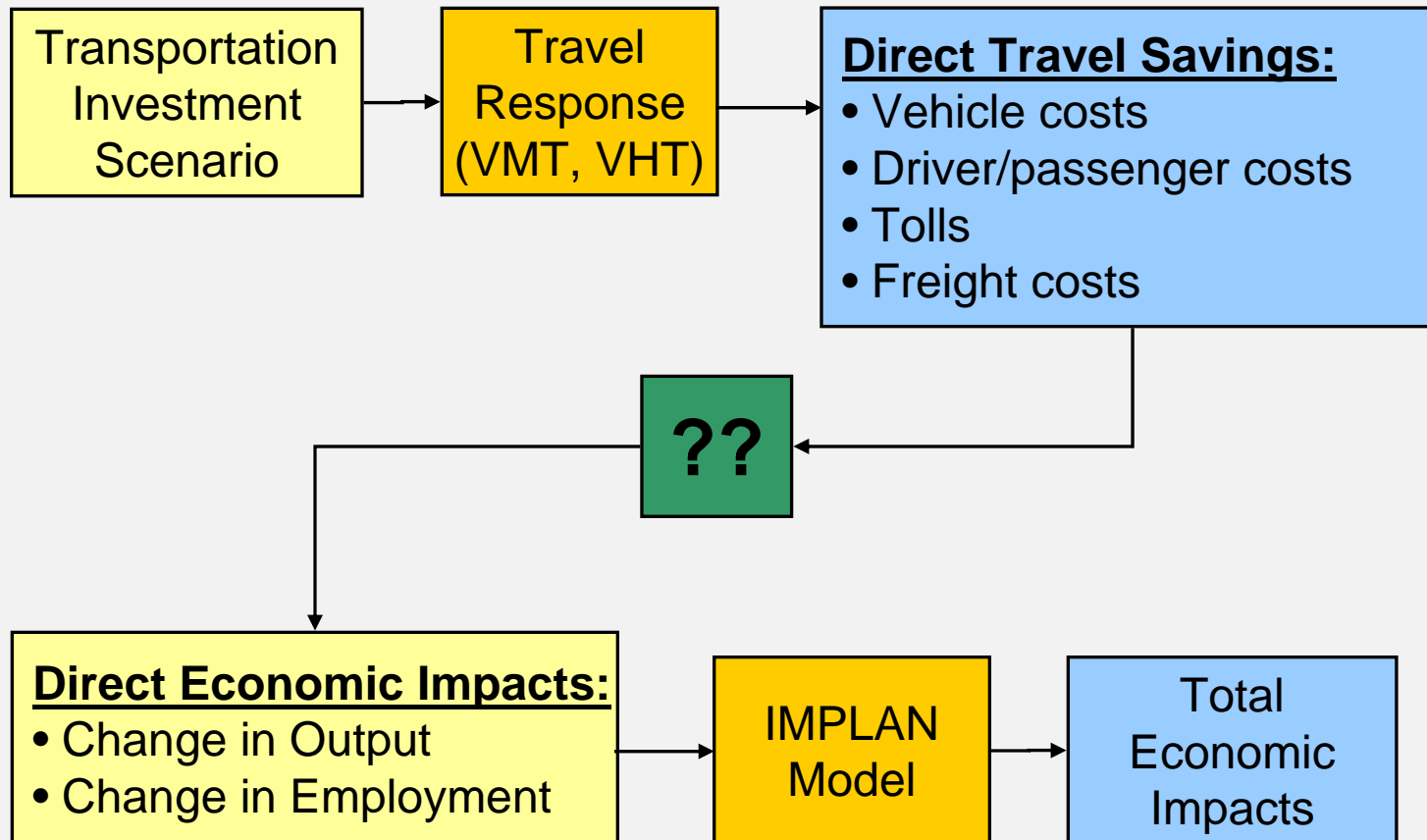
(2) Impact of a change in transportation conditions

- transportation as a means to economic activity
- enabled by investment or policy change
- predictive

IMPLAN for Transport Investment Studies?

- Industry detail
- Geographic detail
- Commodity trade flows
- Supply-chain information
- Industry productivity
- Cluster and network impacts
- Tax impact analysis
- Household accounts by income

Overview of Transport Impact Analysis



Fill in the Missing Link...

Cost savings to whom?

- Households
- Freight Carriers
- Freight Shippers
- Non-freight industry

Direct Travel Savings:

- Vehicle costs
- Driver/passenger costs
- Tolls
- Freight costs

??

Direct Economic Impacts:

- Change in Output
- Change in Employment

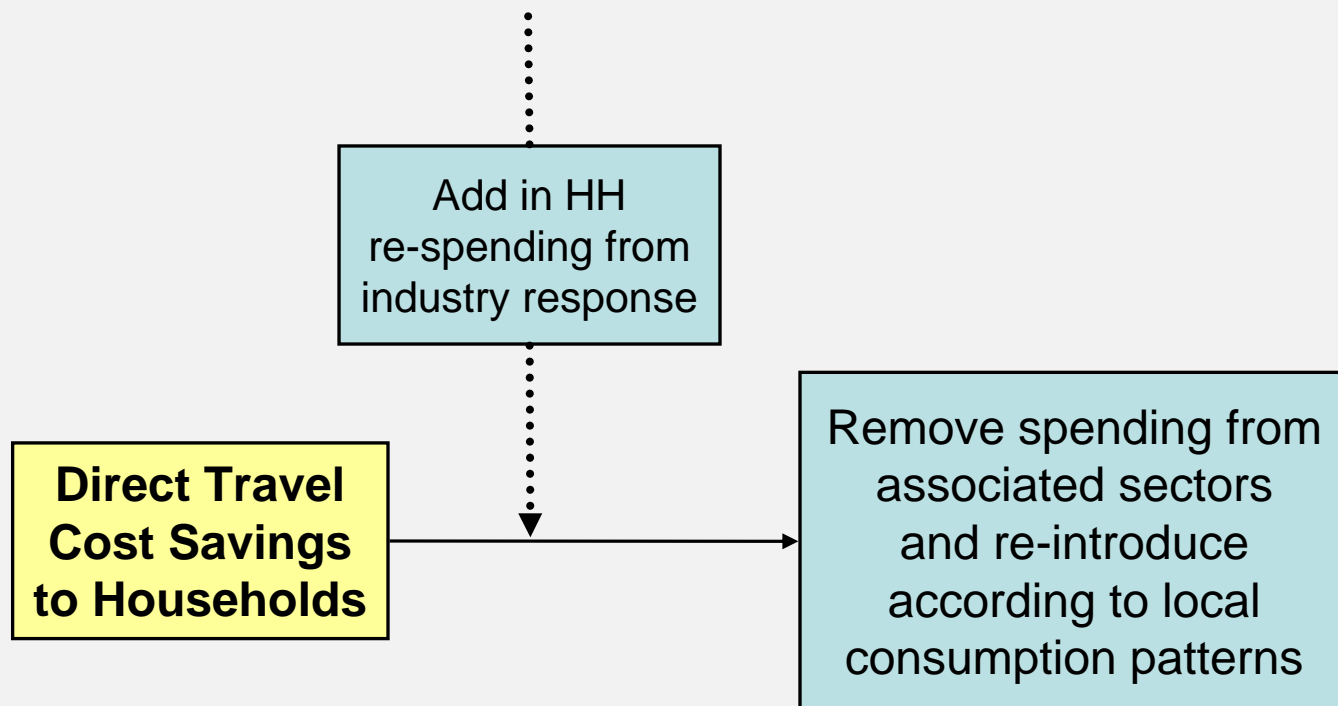
IMPLAN
Model

Total
Economic
Impacts

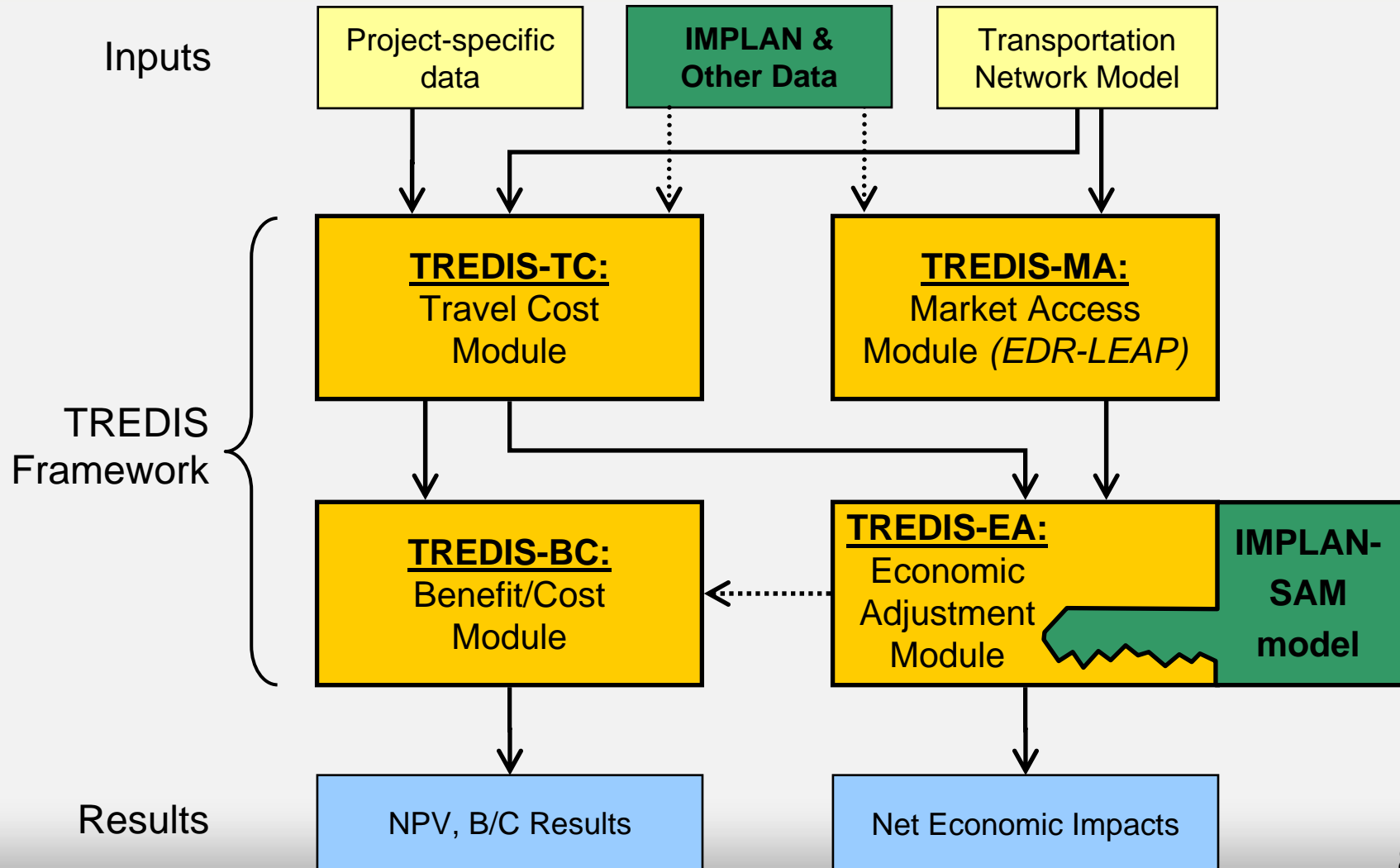
Industry Response to Travel Cost Savings

	Industry option..	..to be used as..	..for direct impact:
<div style="border: 1px solid black; background-color: yellow; padding: 5px; display: inline-block;"> Travel Cost Savings to Industry </div>	(1) Keep as Profit	Proprietor's Income	HH re-spending
		Corporate Profits	No impact (leakage)
	(2) Pass on to Customers	Increase market share	Increase output if demand is elastic
		Maintain market share	Industry re-spending HH re-spending
	(3) Reinvest in Industry	New/better capital	Increase output if demand is elastic
		More labor	
		Other/more inputs	

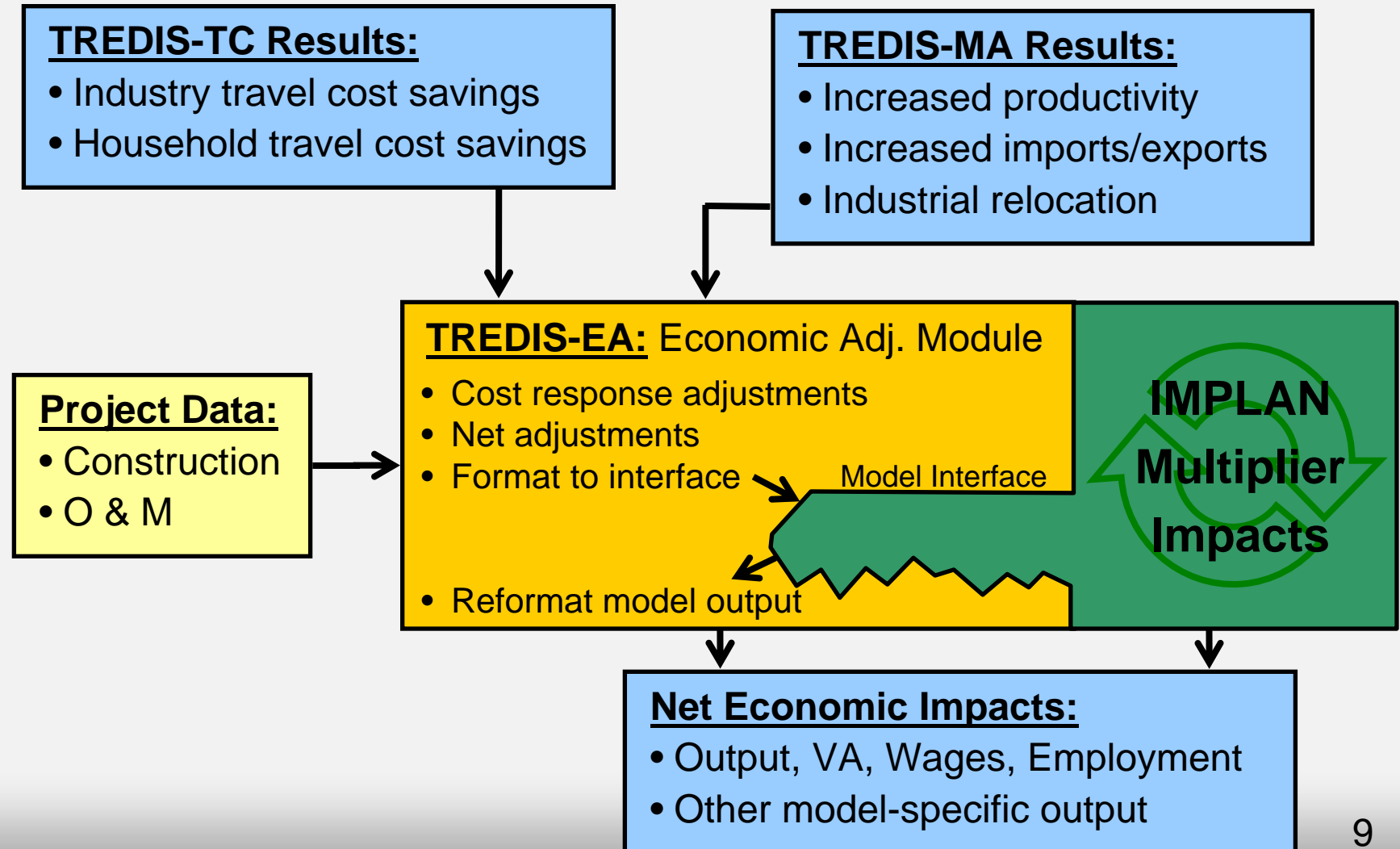
Household Response to Travel Cost Savings



Result: the TREDIS model



Economic Impacts in TREDIS



You are here : Project

- Project
- Scenario
- Case
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CREATE/CONFIGURE A PROJECT

Use this page to create or edit a project.

Create/edit Projects, select counties for each Project from the list of those available for your account, and/or enter values for the Project Setup fields.

Project Definition

Select / Define Project	Define Project Type	Edit Project Name
GA Test (EDRGroup-CE) ▼	Common Edit ▼	GA Test

Study Regions +													
Region 1 (sa1)	<table style="width: 100%; border: none;"> <tr> <td style="border: none;">Georgia - Georgia</td> <td style="border: none; text-align: center;"> <input type="checkbox"/> </td> <td style="border: none;">Region 1 (sa1) linked areas</td> </tr> </table>	Georgia - Georgia	<input type="checkbox"/>	Region 1 (sa1) linked areas									
Georgia - Georgia	<input type="checkbox"/>	Region 1 (sa1) linked areas											
Region 2 (sa2)	<table style="width: 100%; border: none;"> <tr> <td style="border: none;">Georgia - Clayton County</td> <td style="border: none; text-align: center;"> <input type="checkbox"/> </td> <td style="border: none;">Region 2 (sa2) linked areas</td> </tr> <tr> <td style="border: none;">Georgia - Fulton County</td> <td style="border: none; text-align: center;"> <input type="checkbox"/> </td> <td style="border: none;">Georgia - Cobb County <input type="checkbox"/></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none; text-align: center;"> <input type="checkbox"/> </td> <td style="border: none;">Georgia - Douglas County <input type="checkbox"/></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none; text-align: center;"> <input type="checkbox"/> </td> <td style="border: none;">Georgia - Paulding County <input type="checkbox"/></td> </tr> </table>	Georgia - Clayton County	<input type="checkbox"/>	Region 2 (sa2) linked areas	Georgia - Fulton County	<input type="checkbox"/>	Georgia - Cobb County <input type="checkbox"/>		<input type="checkbox"/>	Georgia - Douglas County <input type="checkbox"/>		<input type="checkbox"/>	Georgia - Paulding County <input type="checkbox"/>
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Region 3 (sa3)	<table style="width: 100%; border: none;"> <tr> <td style="border: none;">Georgia - Cobb County</td> <td style="border: none; text-align: center;"> <input type="checkbox"/> </td> <td style="border: none;">Region 3 (sa3) linked areas</td> </tr> <tr> <td style="border: none;">Georgia - Douglas County</td> <td style="border: none; text-align: center;"> <input type="checkbox"/> </td> <td style="border: none;">Georgia - Clayton County <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Georgia - Paulding County</td> <td style="border: none; text-align: center;"> <input type="checkbox"/> </td> <td style="border: none;">Georgia - Fulton County <input type="checkbox"/></td> </tr> </table>	Georgia - Cobb County	<input type="checkbox"/>	Region 3 (sa3) linked areas	Georgia - Douglas County	<input type="checkbox"/>	Georgia - Clayton County <input type="checkbox"/>	Georgia - Paulding County	<input type="checkbox"/>	Georgia - Fulton County <input type="checkbox"/>			
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Georgia - Douglas County	<input type="checkbox"/>	Georgia - Clayton County <input type="checkbox"/>											
Georgia - Paulding County	<input type="checkbox"/>	Georgia - Fulton County <input type="checkbox"/>											

Select State

GEORGIA ▼

Select One or More Available Counties

- Georgia - Entire State
- Georgia - Bartow
- Georgia - Clayton
- Georgia - Cobb
- Georgia - Douglas
- Georgia - Floyd
- Georgia - Fulton
- Georgia - Murray
- Georgia - Paulding
- Georgia - Whitfield

Assign Selected County ▼

Periods +	
Annual	<input type="checkbox"/>

Build Economic Model

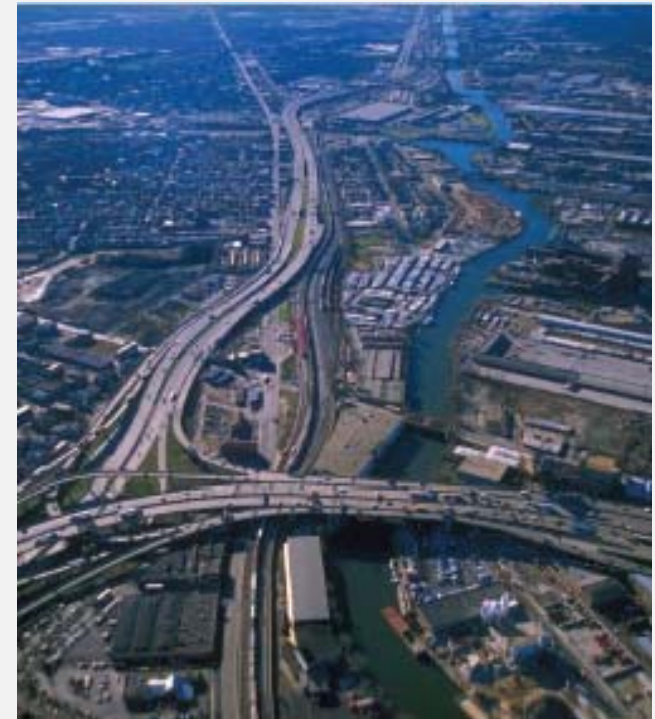
Case Studies

TREDIS has been used...

- In dozens of applications
- For freight and passenger modes
- For small and large study areas
- For all common modes (road, rail, air, marine)
- For urban and rural study areas

TREDIS Case Studies

- **Chicago Metropolis 2020:**
 - Evaluated road and transit scenarios for change in traffic levels, impacts on access, and logistic costs for the area's industries and subsequent regional economic growth.



TREDIS Case Studies

- **California High Speed Rail**

- Evaluated economic impacts of two alternative alignments along San Francisco to San Diego Corridor. Analysis utilized five modes: high speed rail, conventional rail, car, truck, and air.



CALIFORNIA

High-Speed Trains.

An environmentally-friendly transportation solution that makes perfect economic sense.

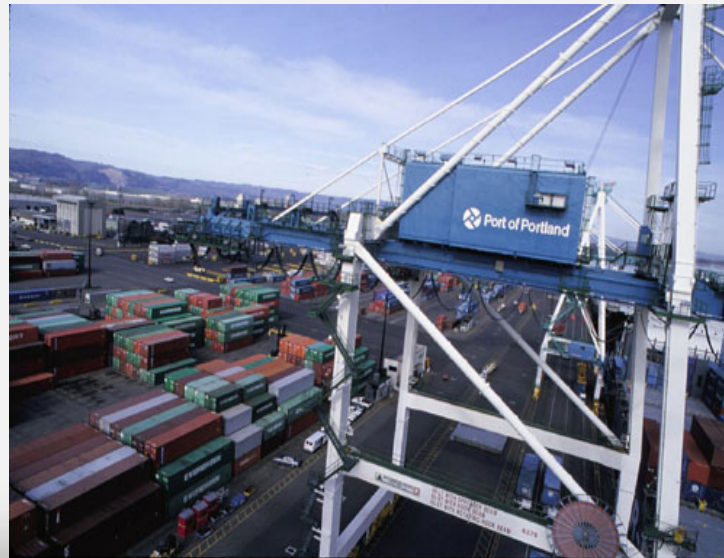
Relieve Traffic Congestion
Plan for the Future
Improve Our Economy
Protect Our Environment



TREDIS Case Studies

- **Portland Business Alliance**

- Evaluated cost of congestion to the regional economy in terms of changes in business operations, household costs and market access, and implications for future economic productivity, competitiveness and growth.



For More Information...

www.tredis.com

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