


<p>Briefing for Transportation Finance Panel</p> <ul style="list-style-type: none"> • Corridor Economic Impact Analysis • Status Report 	<p>TFP Webinar September 29, 2015</p>
	 <p>CDM Smith</p>  <p>Tom Maziarz, CTDOT Glen Weisbrod, EDRC</p>

<p style="text-align: center;">Economic Analyses of Let's Go CT Transportation Investments</p> <p>Where we are in the process:</p> <ul style="list-style-type: none"> • ready to deliver <u>new type of information</u> to assist decision makers • to assess <u>value of investments relative to cost</u> <p>Economic assessment: of transportation investments</p> <ul style="list-style-type: none"> • new measures to <u>gauge the worth</u> of investments • <u>beyond standard</u> transportation measures like accident & congestion reduction <p>Today's presentation: first part of economic analysis</p> <ul style="list-style-type: none"> • <u>corridor-level</u> analysis • 3 highway corridors <ul style="list-style-type: none"> – with the <u>largest & boldest improvements</u> – important <u>conduits of commerce</u> – among our <u>most congested</u>. <p>Summary of initial findings: <u>good return on investment</u></p> <ul style="list-style-type: none"> • Demonstrate that transportation investments will spur growth in jobs, business, & income. • Economic benefits will far exceed the cost of building the projects

Economic Analyses of Let's Go CT Transportation Investments

Presentation of Initial Analyses to Transportation Finance Panel

September 29, 2015

1. Introduction: Tom Maziarz, CTDOT

- Overview plus schedule for remaining analyses
- Explanation of 3 corridors to be presented today
- Purpose & approach to conducting the economic analyses

2. Methods & Results: Glen Weisbrod, Economic Development Research Group

- **Methods**
- **Results**
 - **I-95 West** corridor
 - **I-95 East** corridor
 - **I-84 West** corridor

Economic Analyses

Scope of analysis & Timeline for completion

Highway analyses:

- **Major corridor 'packages':** ***TODAY***
 - Present major corridors as full packages first
 - Major projects & key segments being analyzed individually
- **Individual projects:** ***end of October***

Transit analyses:

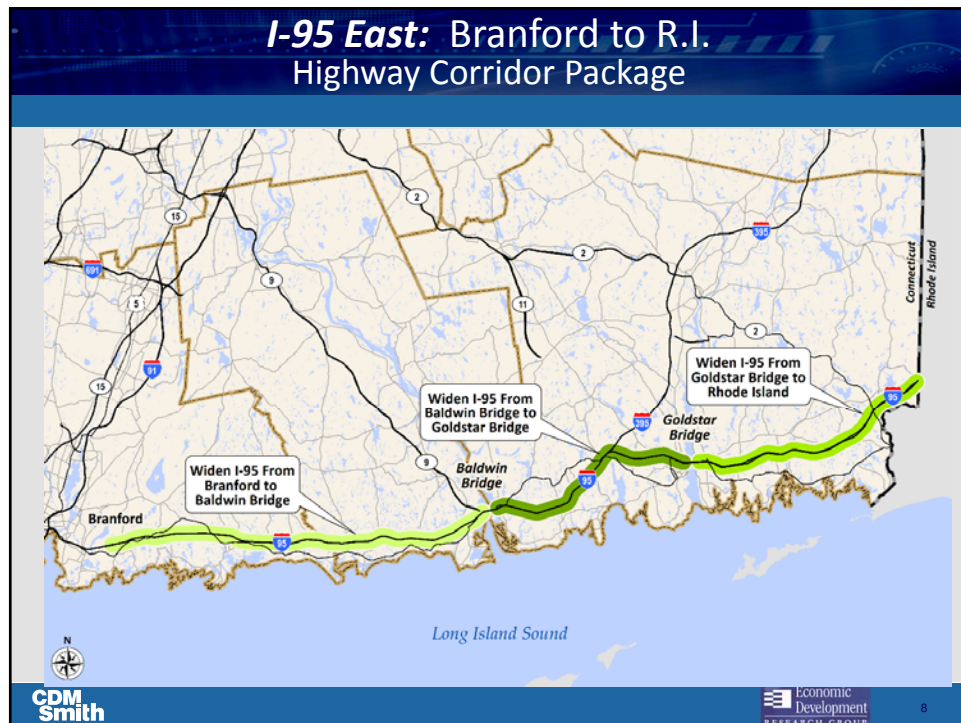
- **Metro North mainline:** New Haven to NY: ***end of October***
 - ***Special & more detailed analyses*** using NEC data
 - Assess impacts of more frequent and faster service
 - **2+2 track configuration:** 2 tracks for local & 2 tracks for express service.
- **Other individual projects:** Waterbury Branch, Hartford Line, SLE: ***end of Oct.***

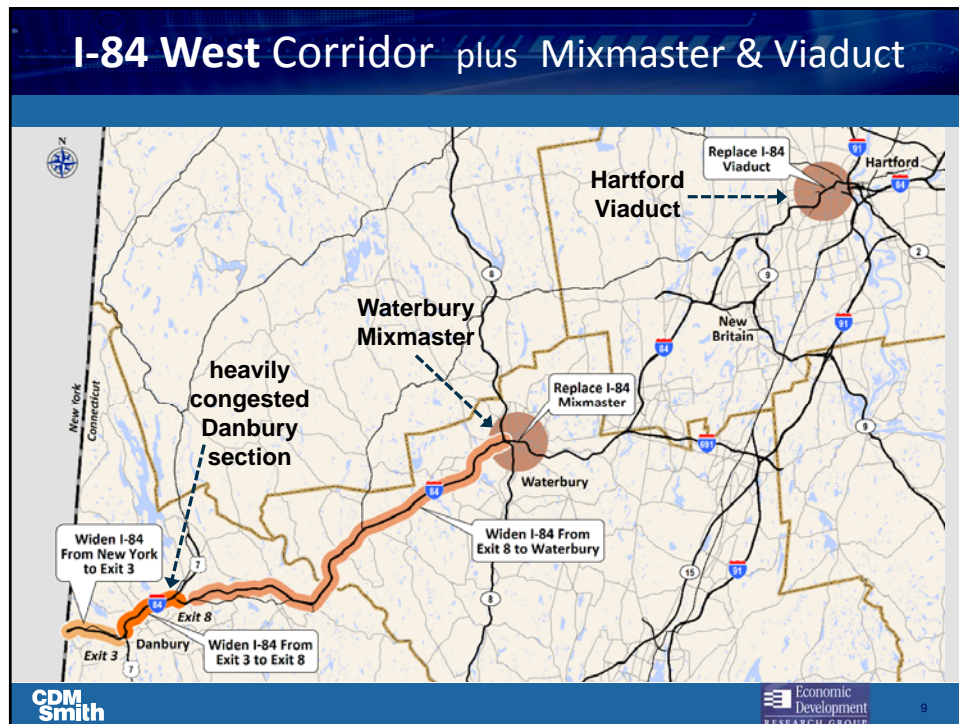


Three Major Highway Corridors *current* conditions

	I-95 West	I-95 East	I-84 West
Length (Miles)	50	60	37
Daily Traffic	135,000	84,000	80,000
% Trucks	13.6%	10.5%	12.7%
Daily VMT <i>Vehicle <u>Miles</u> Traveled</i>	6,500,000 miles	3,700,000 miles	3,100,000 miles
Annual VHT <i>Vehicle <u>Hours</u> Traveled</i>	45.1M hours	24.0M hours	29.2M hours
Annual Delay <i>Hours of congestion</i>	5.3M hours	2.1M hours	2.6M hours

6





Why we conducted economic analysis

Traditionally, transportation plans were based on standard measures of **safety, congestion, & mobility**. For this strategic plan, we need to go *beyond standard measures*.

Purpose of economic analysis:

Assess project's ability to **support other strategic goals** of CT
(*especially economic growth*)

- Assess “**economic value**” of safety, congestion, & mobility improvements
- Assess a project's potential to **facilitate or spur economic growth**

Glen will explain multiple methods used to get more & better insights into value of projects

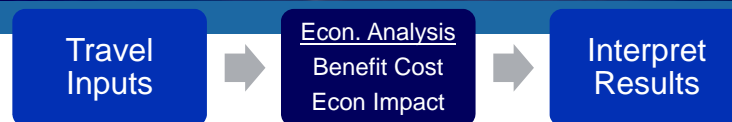
Methods & Results

Glen Weisbrod

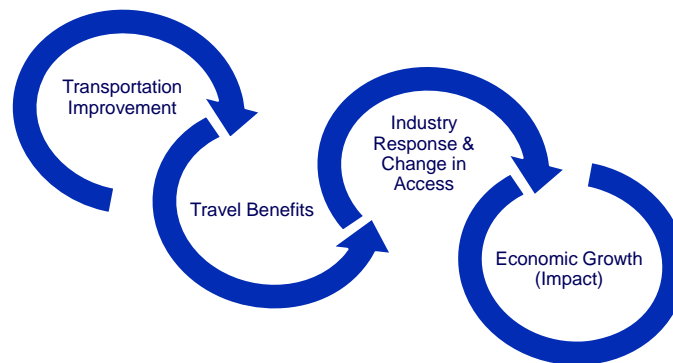
President , Economic Development Research Group

- **37 years experience** on economic assessments of energy, transportation, & economic development programs
- Advised **over 20 state DOT's**
- Former Chair of **Transportation Research Board's (TRB)** 'Committee on Transportation & Economic Development'
- Coauthored:
 - **TRB guide:** Assessing Social-Economic Impacts of Transportation
 - **FHWA guide:** Measuring Economic Impacts of Highways
 - **APTA's guide:** Economic Impacts of Public Transportation

Economic Impact Analysis



Evaluation of changes in economy due to monetary transactions.



Factors Affecting Economic Impacts & Benefits

Benefit Categories

Travel Factors

Economic Impact Factors

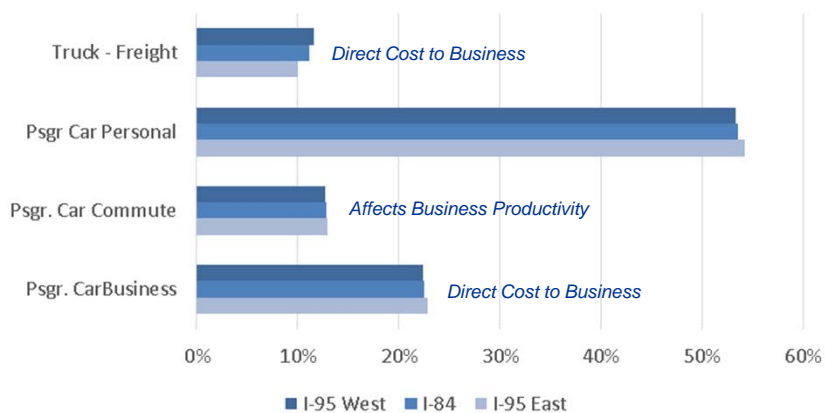
Vehicle Operating Costs	VMT, Mix of Vehicle Types, Congestion
Time & Reliability (<i>Business</i>)	VHT, Trip Purpose, Congestion
Logistics Productivity	Truck Fleet Mix, Commodity Mix, Congestion
Market Access	Effective Size of Labor and Delivery markets

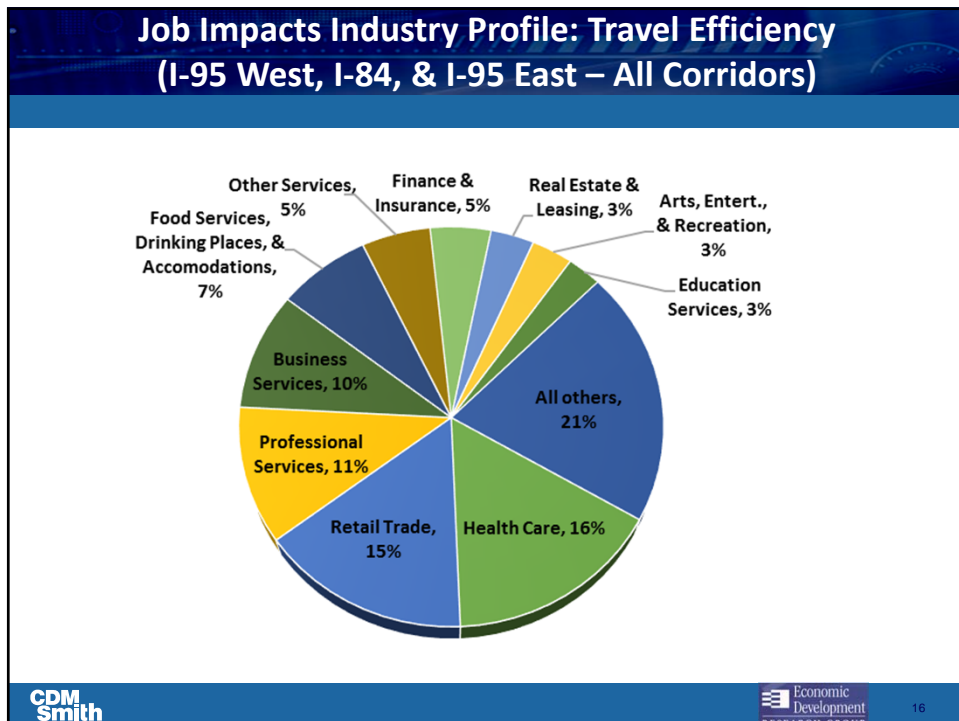
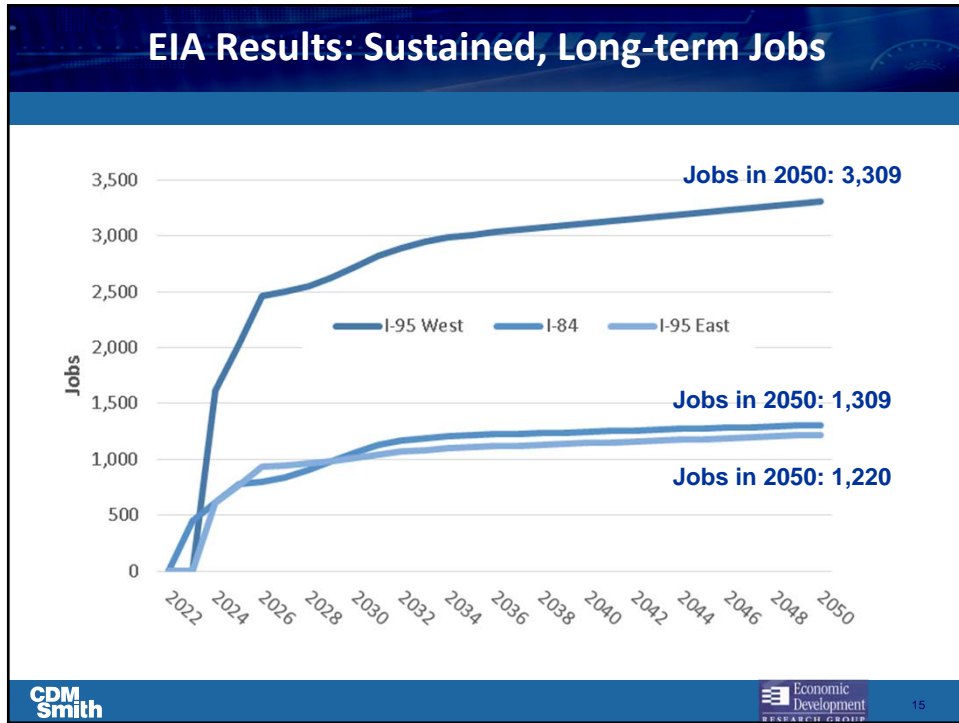
Other Societal Benefits

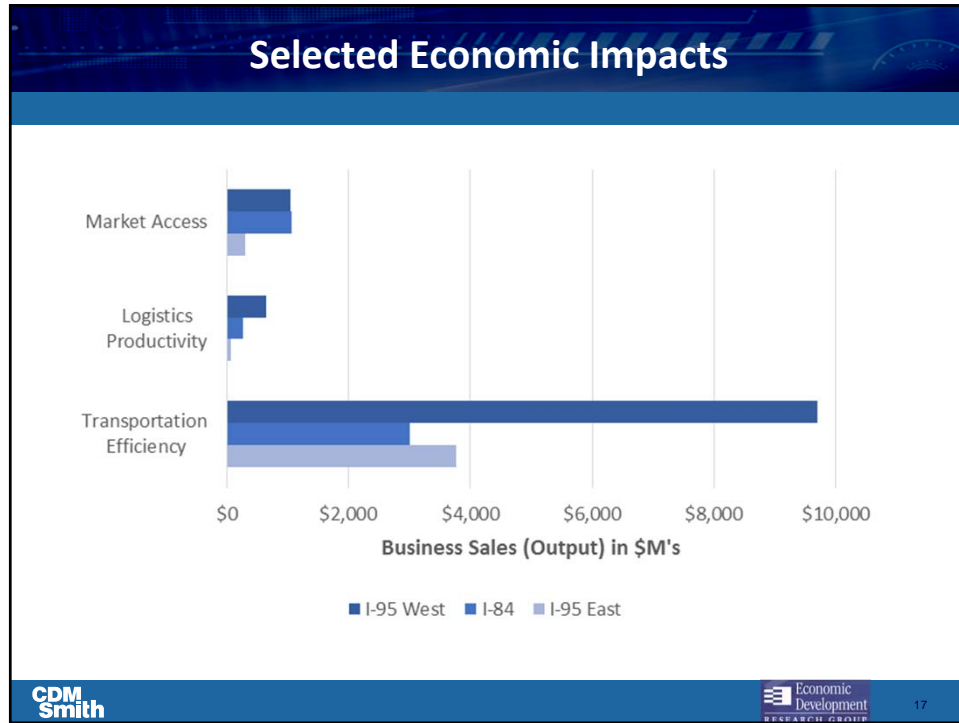
Personal Time (<i>Not Business</i>)	VHT, Trip Purpose, Congestion
Safety	VMT, Speed, Road Class/Design
Environment	Fleet Mix, VMT, Congestion

Trip Characteristics & Economic Impact

% of Trips by Mode / Purpose







EIA Results

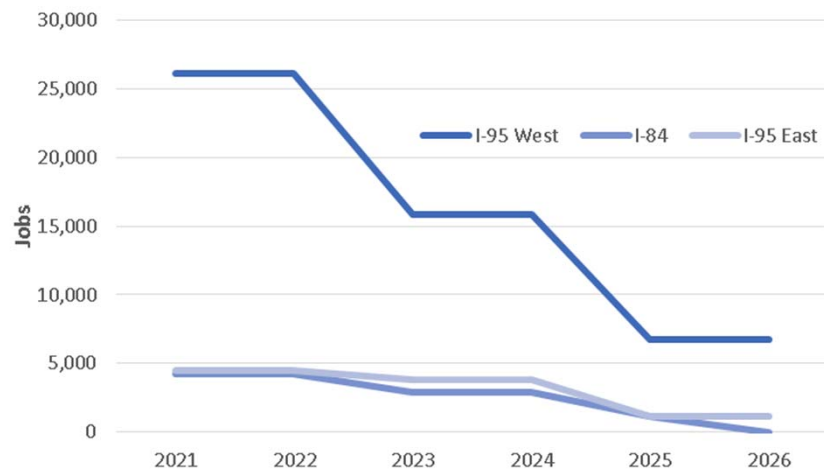
Sustained, Long-term Travel Efficiency & Market Access

Added Business Sales (output)	I-95 West	I-84 West*	I-95 East
Total Long-Term Impact <i>(total of 27 year-cash output stream)</i>	\$11.4 billion	\$4.4 billion	\$4.2 billion

* Not including Mixmaster & Viaduct

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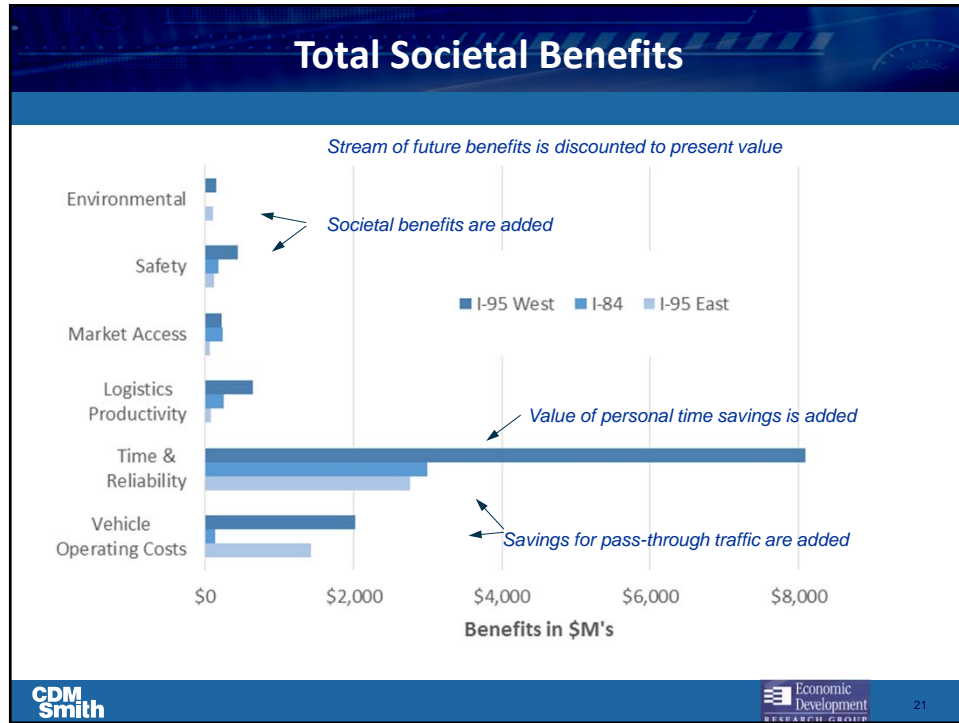
EIA Results - Construction Jobs by Year



EIA Results - Construction Impacts

Added Business Sales (output)	I-95 West	I-84 West*	I-95 East
Construction Period Impact (2021-2026)	\$13.9 billion	\$2.2 billion	\$2.7 billion

* Not including Mixmaster & Viaduct



BCA Results

Comparative Long-term Costs & Benefits

Present Value	I-95 West	I-84 *	I-95 East
Project Benefits (\$ billions)	\$11.6	\$3.8	\$4.5
Project Costs (\$ billions)**	\$7.0	\$1.1	\$1.3
Benefit/Cost Ratio	1.65	3.30	3.42

* Not Including Mixmaster and Viaduct
 ** Project costs are discounted at a rate of 3% to year(s) of expenditure

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Summary

- The three packages of projects address severe congestion along key economic corridors
- Completion of these projects will enable Connecticut to add roughly 5,800 jobs (that would otherwise not occur)
- The impacts will be spread widely across the State's economy
- All three projects have Benefit/Cost ratios well over 1.0, meaning that there is a positive Return on Investment
- The next step is to conduct more analysis of individual highways and transit investments

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- Completion of these projects will enable Connecticut to add roughly 5,800 jobs (that would otherwise not occur)
- The impacts will be spread widely across the State's economy
- All three projects have Benefit/Cost ratios well over 1.0, meaning that there is a positive Return on Investment
- Represent critical interventions to support the state's economic future
 - they allow CT to remain competitive as a business location site
 - without these projects, the high costs of congestion would drive away a portion of the state's business growth.
 - there would be over 5,000 fewer long term, permanent jobs in CT
- Next step: conduct more analysis of individual highways & transit investments