

Assessing Economic Impacts of Transportation Projects

SHRP 2 Web Tool Demonstration:
Transportation Project Impact Case
Studies (T-PICS)

Today's Presenters

- **Stephen Fitzroy**
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Transport Economics &
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Economic
Development

RESEARCH GROUP

Today's Presenters

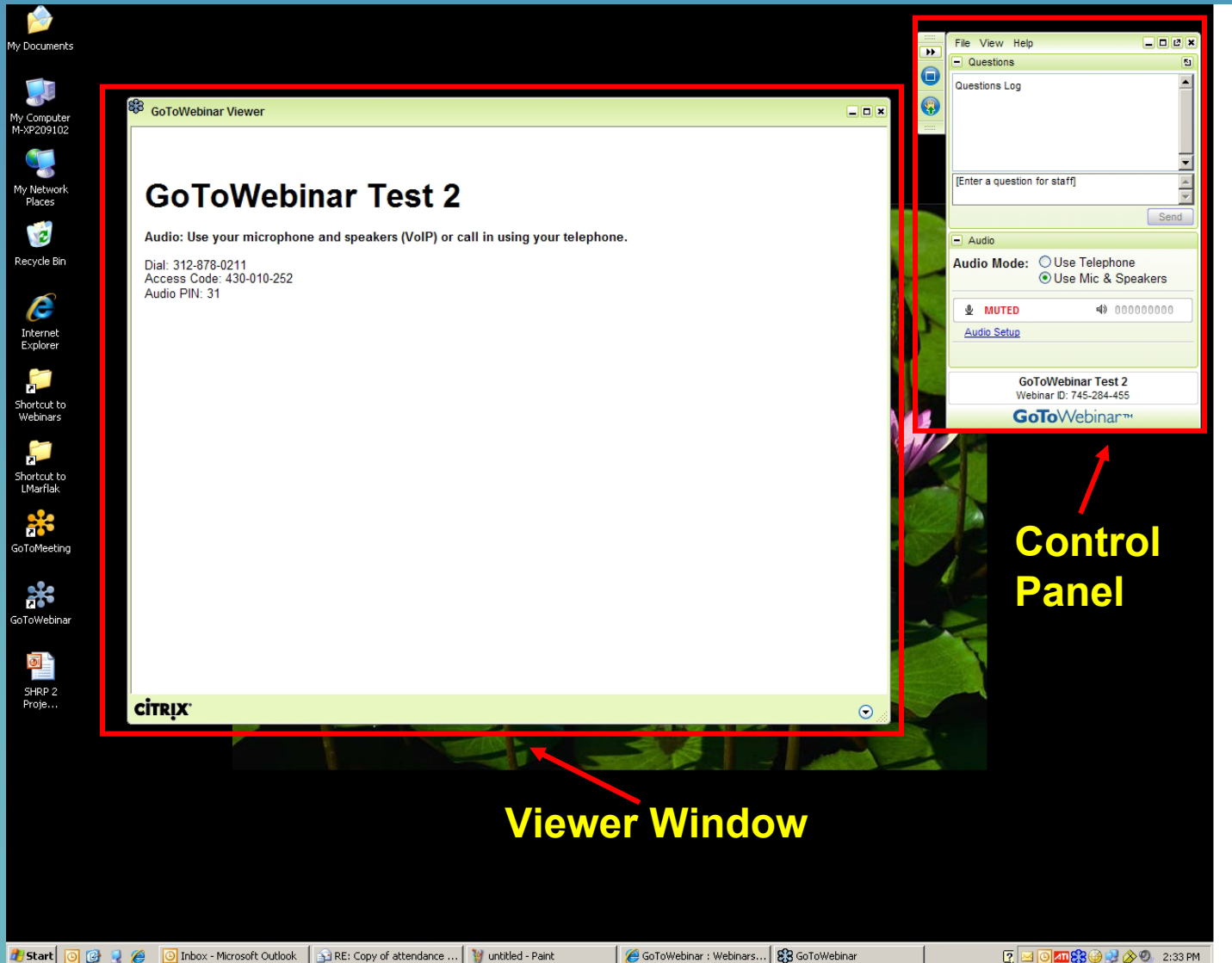
Moderator

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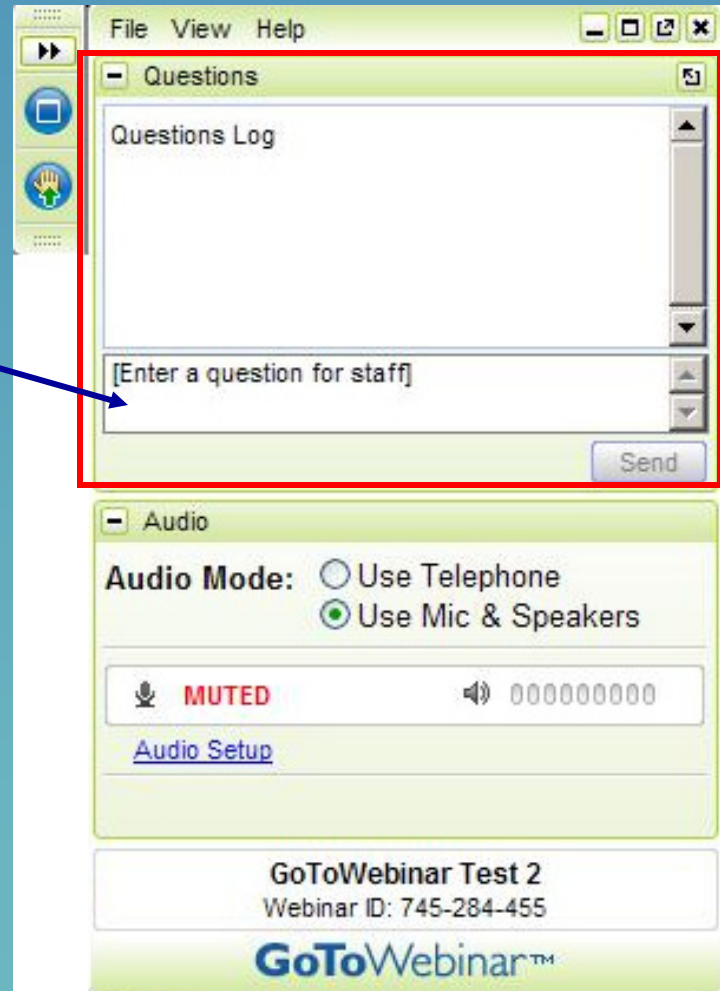
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Question and Answer Session

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- We will answer as many of your questions as time allows



SHRP 2 Background

- Authorized in 2005 highway bill at \$205 million over 4 years
- ~ \$170 million spent over 7 years
 - Roughly \$40 million targeted toward traffic congestion with largest emphases on improving safety and renewing highways
- Memorandum of Understanding:
 - Federal Highway Administration
 - Amer. Assoc. of State Hwy & Transportation Officials
 - National Research Council of the National Academies
- Administered by TRB under cooperative agreement with FHWA

Providing outstanding customer service for the 21st Century

Safety
(\$51M)





CAPACITY FOCUS AREA

Fundamental Goal: Integrate mobility, economic, environmental, and community needs into the planning and design of new highway capacity

Collaborative Decision-Making Framework

- Measures
- GHGs
- PPPs
- Visioning
- Smart growth
- Freight industry

- Ecological Approach to Environment
- Credits
- Wetlands
- Endangered Species
- Habitat

- Economic Impacts:
- Case Studies
- New tools

- Models & Networks
- Partnerships
- Pricing
- Operations
- Freight

SHRP 2 Capacity Project C03: T-PICS

- T-PICS is a web-based tool that allows transportation planning and other practitioners to estimate the *long-term* economic impacts of capacity projects *by analogy*
- As you will see, it is simpler to use than many of the other economic impact tools that are available
 - It is primarily intended to be used as a tool for sketch planning, scenario building, and alternatives screening
 - It is *not* intended to be a substitute for more complex tools such as input-output or dynamic forecasting models

stage.shrp.icfi.com/t-pics/#

SHRP 2 Economic Impact Study Objectives

- Identify the LONG-TERM economic impacts from new/capacity-enhancing highway investments
- Provide findings that illustrate the interaction between highway infrastructure and non-highway investments and initiatives
- Develop a preliminary assessment guidance for policy-makers and practitioners
- Design a web-based tool for illustrating and communicating kinds of economic impacts
- Create a flexible system for adding new cases

SHRP2 C03 Products

■ T-PICS Web Tool

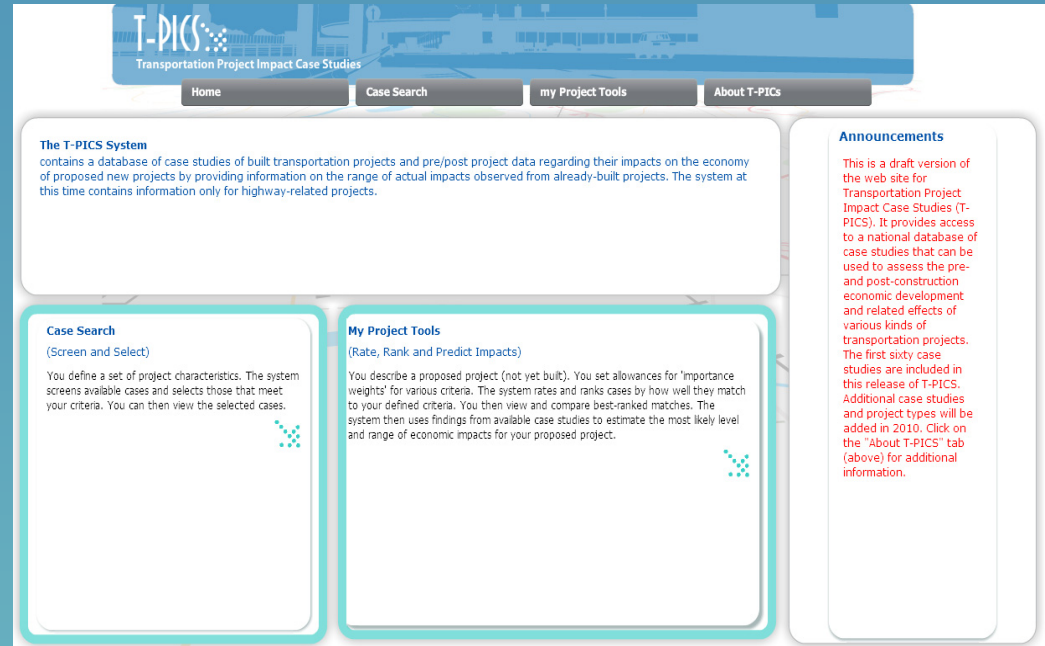
- Case studies
- Economic impacts
- Interaction with non-transportation policies

■ User's Guide

- Step-by-step process for running the tool

■ Practitioner's Handbook

- Effective use of case studies and economic impact assessment
- Appropriate use in planning process and TCAPPS decision-making



Potential Uses of SHRP2 C03

- Comparing Proposed Projects to Real-World Examples
 - Use case search to access outcomes of similar projects
- Evaluating Potential Range of Economic Impacts
 - Assess effects of key project characteristics
- Prioritization Based on Long-Term Economic Development Potential
 - Which project types, settings and initiatives produce best overall results

Case Characteristics

- Project Type
 - Nine Types in Current Data
 - Two new Types to be added
- Urban/Rural Setting
 - Directly affects level and type of economic impacts
- Degree of Economic Distress
 - Sets stage for leverage and potential factor interactions
- Intensity of Activity
 - Addresses traffic volume

SHRP2 C03 – Findings To-Date

- Size of Investment (\$\$) is not the primary “driver” of Long-Term Economic Impacts
- Project Types and Economic Conditions Have Greatest Influence on Investment Outcomes
- Greatest Economic Effects Are Attributable to:
 - Regional setting
 - Current level of economic activity/distress
 - Location and intensity of facility use
 - Concurrent economic development, infrastructure, and land use policies

How Findings Were Developed

- Literature Review
 - Assessed prior studies, cases & ED research
- Synthesis of Case Studies/Interviews
 - Focused on project types & factors influencing economic impacts
- Assessment of Existing Models
 - Reviewed structural composition of ED models
- Statistical Analysis of Case Data
 - Identified key interactions & controlled for key factors
- Common Sense

Estimating Potential Economic Impacts

- Based on User-Specified Project Characteristics
 - Project type, location and economic conditions
- Applies Findings from Cases and Synthesis of Studies
 - Basic relationships establish range of economic impacts
- Users Provide Supplemental Adjustments
 - Includes policy and intensity of user-defined options
- Includes Internal Consistency and Checks

Key Interaction Factors

- Access to Alternative Modes
 - Airports
 - Rail Intermodal Facilities
 - Seaports
- Market Access
 - Labor Markets
 - Freight/Delivery Markets
- Congestion
 - Shifts spatial distribution of economic impacts

For More Information About Forthcoming SHRP 2 Capacity Research Products and Tools:

TransportationforCommunities.com

www.TRB.org/SHRP2/Capacity

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**Thank you for joining the
webinar.**

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