

Prebid Webinar for SHRP 2 Project L38: Pilot Testing of SHRP 2 Reliability Analytical Products

September 13, 2012

Prebid Webinar for SHRP 2 Project L38

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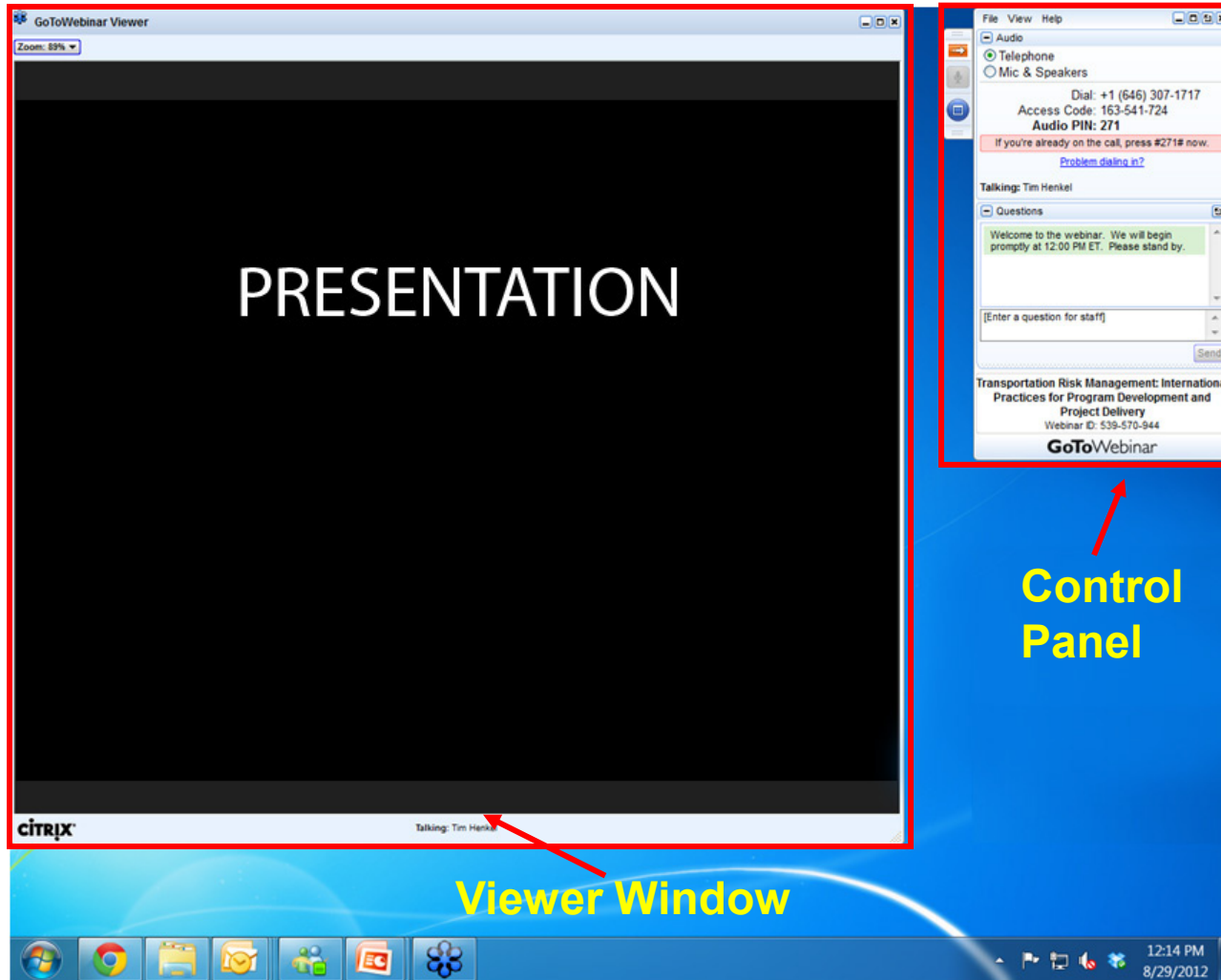
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Your desktop during a webinar



Webinar control panel

The image shows a screenshot of a GoToWebinar control panel window. The window has a title bar with 'File View Help' and standard window controls. The main content area is divided into several sections:

- Audio Section:** Contains radio buttons for 'Telephone' (selected) and 'Mic & Speakers'. Below these are the dialing instructions: 'Dial: +1 (646) 307-1717', 'Access Code: 163-541-724', and 'Audio PIN: 271'. A link for 'Problem dialing in?' is also present.
- Questions Section:** A text input field with a placeholder '[Enter a question for staff]' and the instruction 'Type your questions in this box'. A 'Send' button is located to the right of the input field.
- Footer:** Displays 'TRB Webinar', 'Webinar ID: 539-570-944', and the 'GoToWebinar' logo.

Annotations with arrows point to various elements:

- 'Grab tab' points to the top-left corner of the window.
- 'Click arrow to open or minimize control panel' points to the arrow icon in the top-left corner.
- 'View presentations full screen' points to the full-screen icon in the top-left corner.
- 'If you select this option, dial the number and audio pin' points to the 'Telephone' radio button.
- 'Select this option if you are listening through your computer speakers (free)' points to the 'Mic & Speakers' radio button.
- 'You will be muted during this session' points to the muted microphone icon in the top-left corner.
- 'Don't forget to click "Send"' points to the 'Send' button.

Commonly asked question:

Can I receive a copy of the presentation?

- Answer: Yes
- Your reminder e-mail contained a link to a copy of the presenters' slides in PDF format
- You will get an e-mail in the next few days with a link to a recording of today's webinar

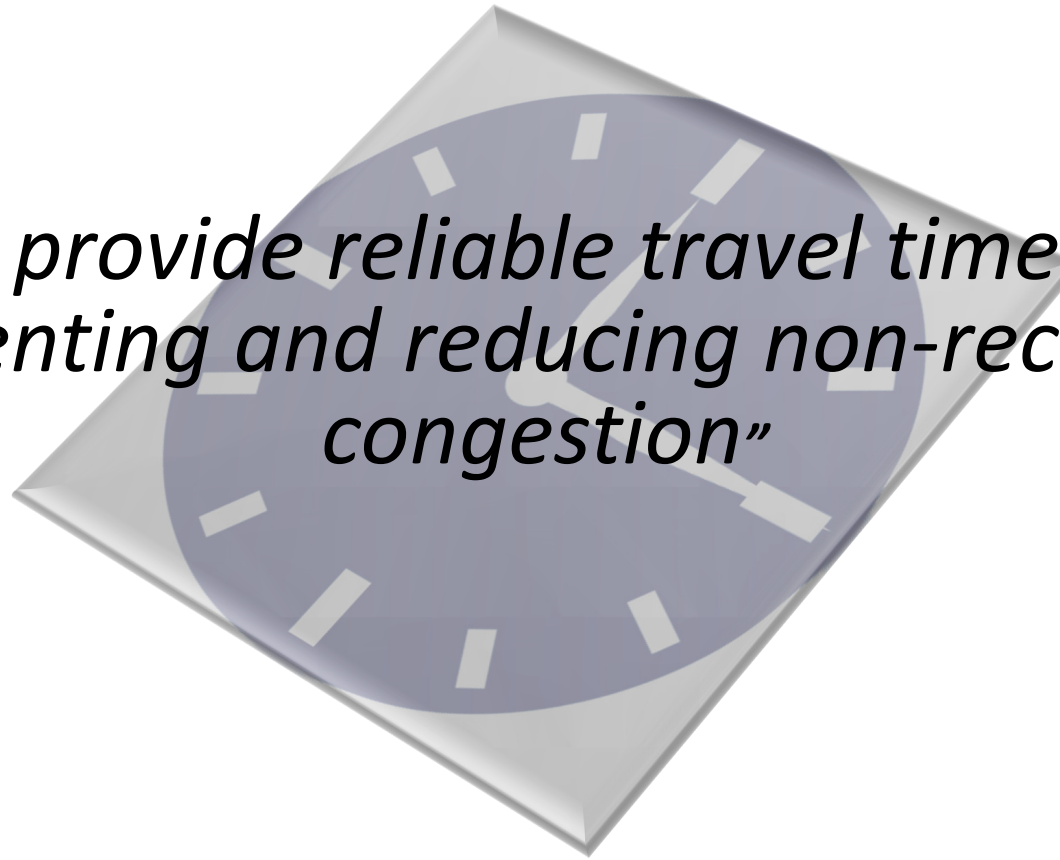
Attendance Poll Question

How many people are watching this webinar from your computer?

SHRP 2 Reliability Goal from TRB Special Report 260



“To provide reliable travel times by preventing and reducing non-recurring congestion”

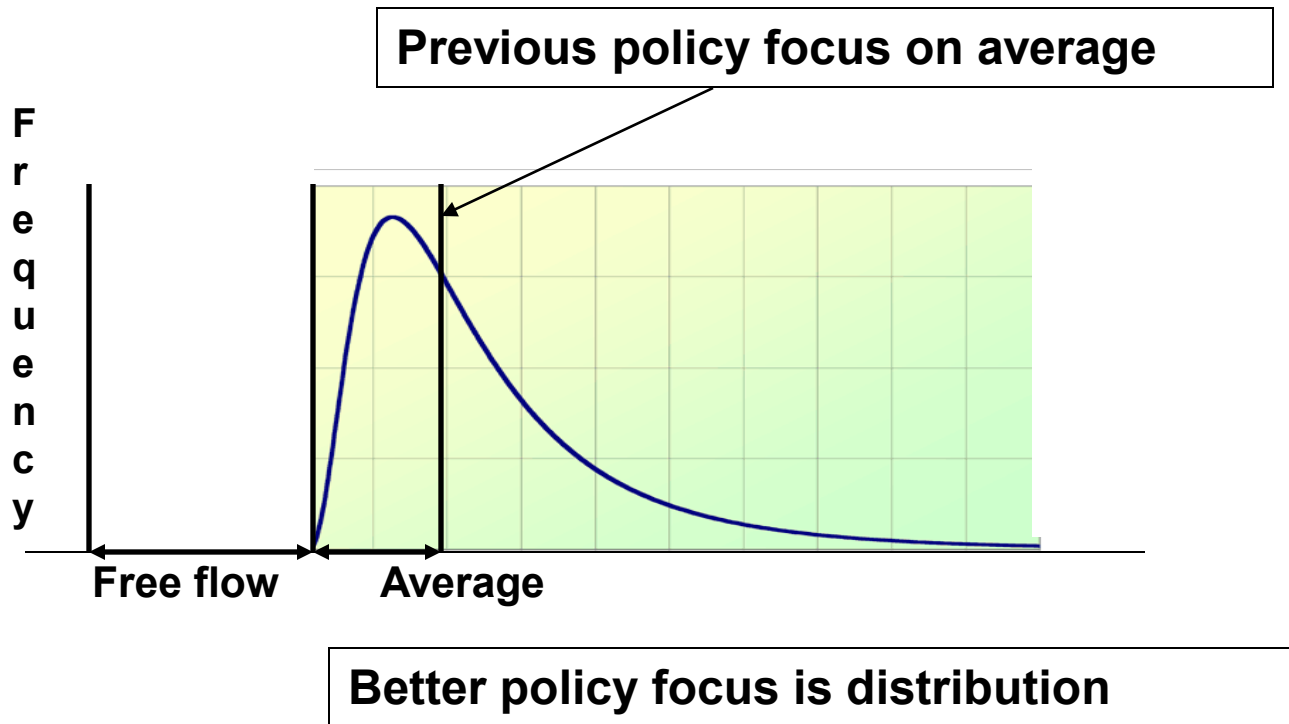


•i.e., reduce the variability of travel time through reducing the underlying causes

Reliability is a measure of how travel time varies over time




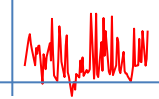





- Not delay or average travel time but travel time variability
- Nearly all measures derived from the distribution of travel time



Seven causes of non-recurring congestions



1		Incidents
2		Weather
3		Work Zones
4		Fluctuation in Demand
5		Special Events
6		Traffic Control Devices
7		Inadequate Base Capacity

SHRP 2 Reliability Themes



1	Organizational strategies and processes
2	New data collection and analysis tools
3	Understanding and influencing driver behavior
4	Improving planning, programming and design
5	Adopting new ideas and innovations

Reliability Research Program Summary



- Total program value \$20.35 M
- All contracts have been awarded or completed
 - Seven projects with reports/products in final approval and publication process
- Approximately \$15 M in additional implementation projects have been planned

SHRP2 Reliability Products



- **Reliability Workshops for State and Public Sector Managers (L31)**
- **Guide to Organizing Transportation Agencies to Advance Systems Operations and Management (L06)**
- **A Guide to Improving Travel Time Reliability by Integrating Business Processes (L01)**
- **Knowledge Transfer System KTS (L17)**
- **Regional Operations Academy (L36)**
- **Coordinated Training for Traffic Incident Responders and Managers (L12)**
- **Analysis Tools (to be presented by Steve Andrie)**

Research to Implementation



Research Development Implementation

Research responds to known transportation challenges

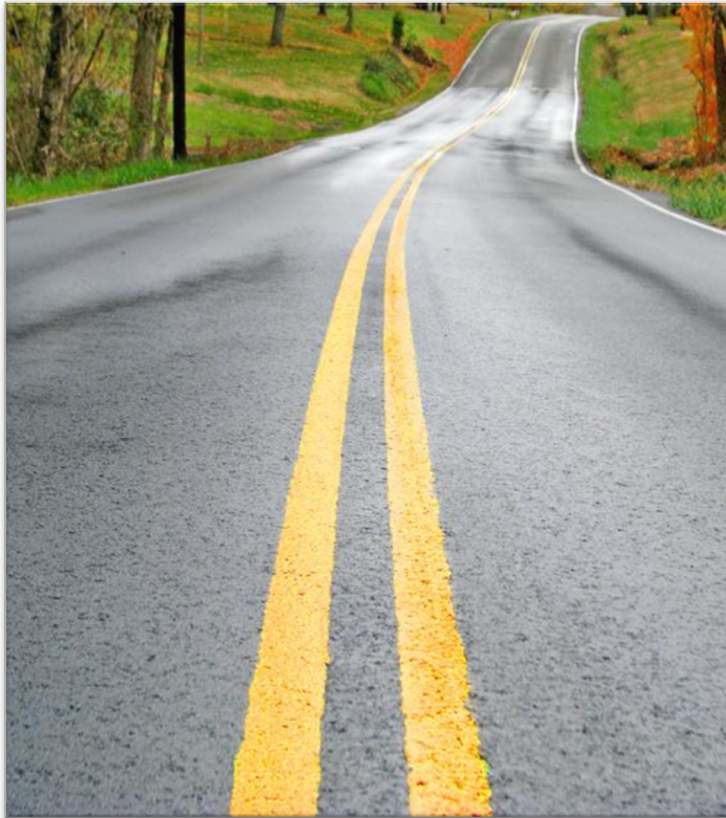
A research product emerges and is refined through pilots and other activities

Potential implementation explored through knowledge transfer

Partner agencies select, prioritize, and prepare product for implementation

Product is marketed to users and integrated into standard practice

What is Implementation?



- Implementation is the routine use of a SHRP2 product.
- *Implementation* is carried out by users: State DOTs, MPOs, resource agencies, and other stakeholders
- SHRP2 Implementation Program has evolved from implementing all products to taking high-priority products to the tipping point of national adoption

Achieving Success



5-6 States adopt as standard practice

Additional states follow the lead

AASHTO and FHWA provide
continuing support

Private sector buy-in

Positive impact on practice

Cost-effective use of products

Pilot Testing Reliability Tools



- Reliability analysis tools would be used in combination to analyze strategies for improving reliability within a specific geographic area in order to decide what will be funded and implemented
- Pilot test the tools in real world locations in order to develop information to support planning and programming decisions

Implementation of Reliability Tools



- Implementation strategy will be developed based on lessons learned from use of the tools in the L38 pilots
- \$3-4 million is currently budgeted for implementation of Reliability analysis tools beginning in FFY 2014



Briefing on SHRP 2 Reliability L38 Request for Proposals

Presented to L38 Pre-Bid Webinar

Stephen Andrle

Bill Hyman

FOUNDATION PROJECT

L03 Analytic Procedures for Determining of Reliability Mitigation Strategies

- L03 will not be tested directly but is used by other products -- L05, L07, and C11
- Re-examination of congestion by source
- Before and after studies
- Traffic, incidents, weather, geometric factors. Data accumulated for a year in order to capture variations in travel times
- Provides models to predict travel time reliability measures and distributions in data rich (incidents, weather, work zones, etc.) and limited data environments

L38 Pilot Tests of Data and Analytical Products

Data	Analysis	Prioritization
Project L02: Establishing Monitoring Programs for Travel Time Reliability	Project L07: Evaluation of the Costs and Effectiveness of Highway Design Features to Improve Travel Time Reliability Project L08: Incorporation of the Non-Recurrent Congestion Factors into the Highway Capacity Manual Methods Project C11: Development of Improved Economic Analysis Tools Based on Recommendations from Project C03	Project L05: Incorporating Reliability Performance Measures into the Transportation Planning and Programming Process

L02 Establishing A Monitoring Program for Travel Time Reliability

- Guidebook for integrating data for reliability analysis
- Provides visualization tools
- Methods for analyzing causes and locations of unreliable performance that help to identify possible mitigating strategies
- Contains a variety of tools that can be tested holistically or separately
- Draft Guidebook available now on L38 website

L07 Evaluation of Costs and Effectiveness of Highway Design Features to Improve Travel Time Reliability

- Spreadsheet tool for analyzing the reliability benefits of design treatments on freeways in peak periods. $V/C > 0.8$
- Based on L03 research
- Guidebook under development that shows changes in reliability associated with operational actions
- Produces life-cycle benefits and costs
- Requires local data such as hourly traffic volumes, number of lanes, shoulder width, etc.
- Updates planned to include off-peak periods, multi-hour incidents, snow and ice effects
- Early version of spreadsheet available on L38 Website

L08 Incorporation of Non- Recurrent Congestion Factors into the Highway Capacity Manual Methods

- Updates HCM calculations to include Travel Time Reliability
- Updates *FREEVAL* to include reliability on freeways
- Introduces *STREETVAL* to evaluate changes in travel time reliability on signalized roadways
- Both are spreadsheet tools based on a scenario generator
- Generates the HCM's full range of performance measures for each scenario
- Both may be run with default values or local input

C11 Development of Improved Economic Analysis Tools

- Sketch planning corridor spreadsheet tool based on L03
- Estimates values of the Travel Time Index as the predictive variable
- Estimates the benefits of improving travel time reliability for use in benefit cost analysis
- Requires local data that are typically available

L05 Incorporating Reliability performance Measures into the Transportation Planning and Programming Process

- A Guide
 - Defining, measuring and tracking reliability
 - Evaluating reliability needs and deficiencies
 - Sizing operations and management programs
 - Project prioritization using reliability
- Technical Reference
 - Data collection and reporting methods
 - Tools summary and selection
 - Reliability Analysis
 - Case studies

L38 Context

- \$1.0 million available
- Multiple awards planned, 3-4
- Public agency participation required
- We would like to test as many products in as many places as possible
- Feedback from the pilots will be used to further develop the research products

L38 Chronology

- August 7. Product information placed on SHRP 2 web site. Upcoming RFP announced in TR Newsletter
- September 4. Announcement of upcoming RFP date and pre-bid web meeting. TR Newsletter and E-mail to bidders list
- September 11. RFP released
- September 13. Pre-bid web meeting

Conclusion

- AASHTO and FHWA have targeted the analytical topics for implementation activity in 2014
- Prior to implementation work, a planning workshop will be held to develop a strategy
- SHRP 2, FHWA, and AASHTO work together on implementation

Reference Material

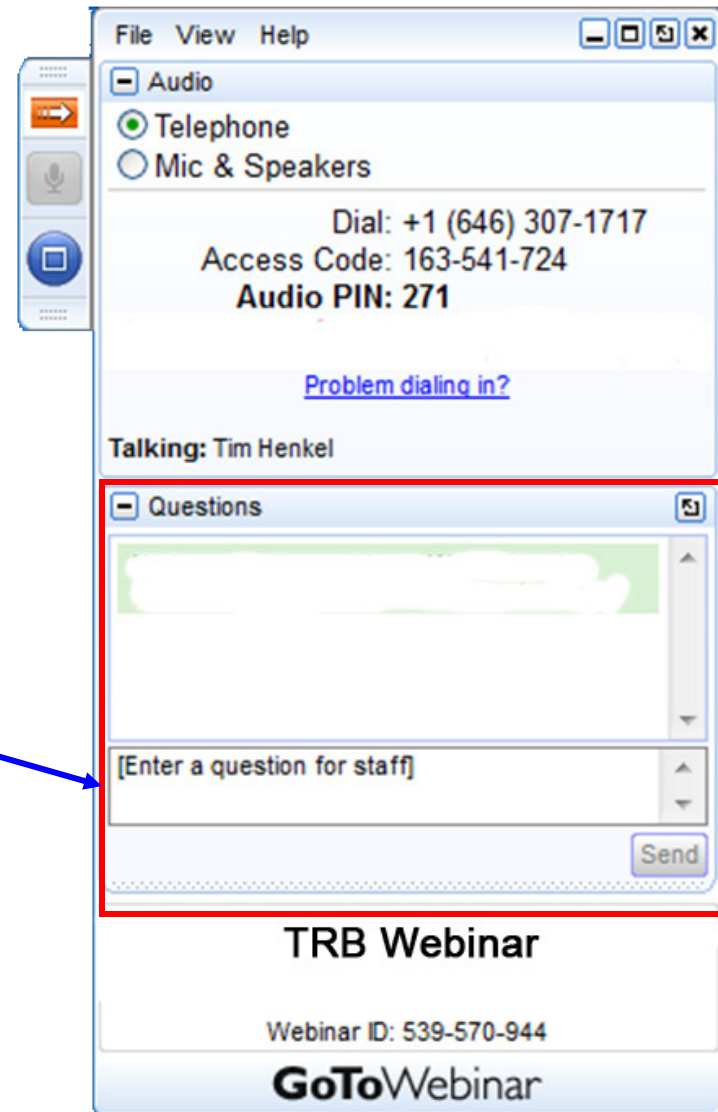
- L38 Supporting Material
- http://www.trb.org/StrategicHighwayResearchProgram2SHRP2/Pages/RFP_L38_Resources_and_Reference_Material_628.aspx

Questions?

Question and Answer Session

We will answer as many of your questions as time allows

Please type your questions into this box



**Thank you for attending
the webinar!**



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