

What's the Value of Reliability?

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Why Are We Here?

Many professionals believe the reliability of the transportation system is badly undervalued in project identification and prioritization

We Need To

- Ensure this thought is correct
- Adjust the tools we use to inform the decision making process to better account for the value of reliability

We Have Help

- The shift towards new ways of pricing limited road infrastructure, can
 - Highlight the monetary value people put on reliable transportation
 - Bring pressure for agencies to provide more trip reliability

The Easy Part

- Do users of the transportation system value travel time reliability?
- Yes. (Duh!)

The Hard Part

How much???

And when?

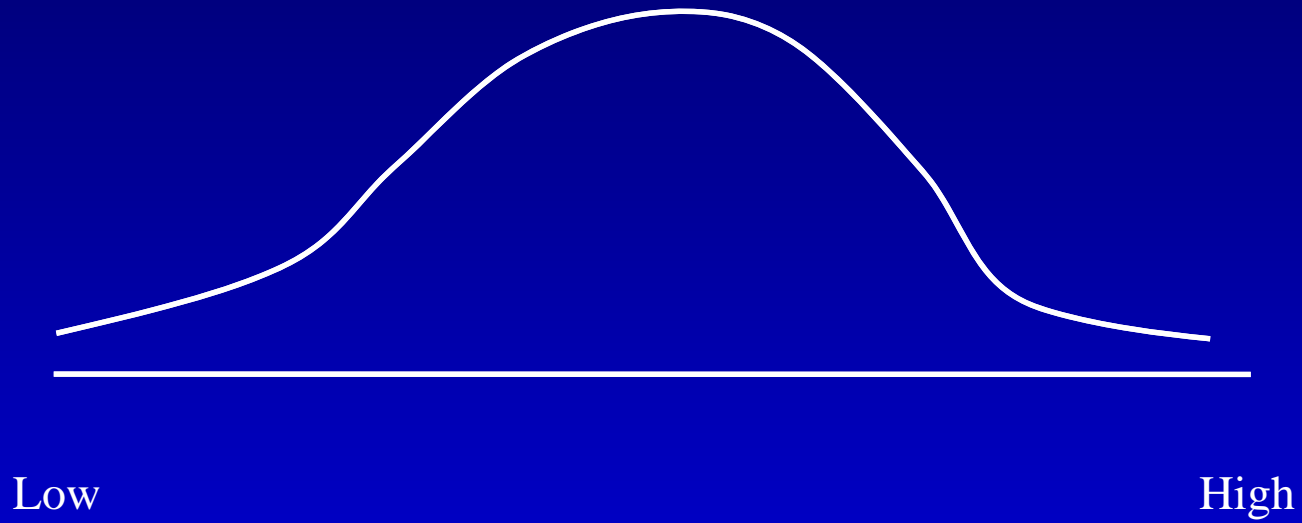
Value of Reliability

- Changes with circumstances:
 - Individual (worth)
 - Trip purpose
 - Ability to gain monetary advantage from better reliability (scheduling)

For Any Improvement

- Some win big
- Others do not
 - For the same physical change in transportation system performance

Value of Time



Need To Learn

- The values/shape of the distribution
- How to apply that distribution

With Road Pricing

- That distribution matters
- If choice (pay / not pay) is involved
 - The right side is what matters
- If little choice is involved
 - The left side matters

Construction Bonds Require Certainty

- Predictions of outcome mean money

Imagine

- You own and operate a private road
 - Maximize revenue (profit)
 - Need to attract customers
 - Supply value for service
- Value =
 - Speed
 - Certainty

Imagine

- Speed –
 - Dynamic pricing
 - Guarantee of trip conditions?
- Certainty –
 - Traveler information
 - Guarantee of trip conditions?

Define Reliability

- It Depends...
- Like “pornography” – hard to do effectively
– but I know it when I see it

Define Reliability

What is “Reliability?”

- “Time” is a big input in the thought process of choosing to make a trip
- Need to “get there” in some “acceptable time”
- Penalties occur for taking too long to arrive

What is the expectation?

- Speed and certainty
- Improving either / both makes travel better

The Users Perspective

- How can I increase certainty?
- Cheap way – Traveler Information
 - Transit – wait time = 2 x in-vehicle time
 - Variable message signs
 - Web sites

What Do We Say?

- NOT Standard Deviation
 - Customers don't understand it
- Arrival certainty is trip dependent – so
 - Percentile travel times
 - Famous commutes
 - Customers take that information and use it in their own manner

I've Described the Situation

You get to go resolve it