Soft and Powerful: On incorporating values and perceptions into travel forecasting
Plenary Session

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Forecasting Travel Perceptions and Values

Innovations	Challenges
Value of travel time	Travel time with new technologies
Perception of travel time	Destination choice
Utility theory	Forecasting cultural trends

Travel time perception

People prefer..	Over..
In-vehicle time	Out-of-Vehicle Time
Time in a personally owned vehicle	Time on a bus
Time riding a bike on a non-motorized path	Time riding in car traffic

Useful for forecasting ridership and perceived project benefits

Challenge: Do we expect travel time perception to stay the same over time with new technology and cultural shifts?

Value of Time

The tradeoff of travel time and money has received much study.
- Can predict the amount people will drive if you apply road user fees.
- Can assist in the planning of tolled facilities.

Complexities

Recent research has found some positive values of time.

The value of time is entangled with the perception of time. How will value of time change with new technology and cultural shifts?

Utility theory

- Used to forecast travel behavior at every level

- The error term and constants encompass powerful perceptions and values

- *Latent class modeling* can include some of these values, how can we forecast changes to latent classes?

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Utility theory, values, perceptions, and forecasting

Forecast Step	Example of Values/Perception	How we model it	Example considerations in forecasting
Auto Ownership	Americans are accustomed to having one car per adult.	Variable in auto ownership for number of autos equal to number of adults	Trends in driving in young people are decreasing.
Mode Choice	People perceive space being impeded on transit.	Negative constant on transit in the mode choice model	People from different cultures have acclimated to comfort with less space.
Destination Choice	People want to shop at a location that they perceive as providing quality and value.	We don't tend to model these aspects.	We might not be forecasting future destination choices to shopping locations well.

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In practice,

inadequate data and modeling of these perceptions, mean we have to add in unfortunate *calibration factors.*

Can we incorporate more about perception and values in destination choice?

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Final questions

How do we best forecast the impact of cultural trends on travel perceptions and values?

How can we better incorporate values and perceptions in forecasting destination choices?

What data are we missing to better forecast values and perceptions?

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Thank you.