Innovations in Travel Modeling
or
How I spent my summer vacation

3rd Conference
May 10-12
Tempe Arizona
Conference Summary

- 200 Attended [NC well represented]
- 59 Presentations
- Dodgers beat the Diamondbacks (though it was too cold to stay to the end of the game)
Impressions

1. Theme: Integrating dynamic demand & supply
2. Small and large MPOs are moving farther apart
3. More MPOs now have (and are developing) activity based models
4. Policies that drive this are time of day pricing and land use policies related to greenhouse gases
Some Ideas I Thought Were Interesting

1. Agile software development techniques applied to models – start simple then add components, but always have a working model
2. Writing applications for the iPhone to collect data on bicycle use
More Detail

- SHRP2 C10 project is under way
  - A “partnership to develop an integrated, advanced travel demand model”
  - Will integrate SACSIM with DynusT
  - Software to be implemented in a web browser
  - Project has a web site to track: http://www.shrp2c10.org
Yet More Detail

• ARC Activity Model Complete
  • Done jointly with MTC
  • Using TP+ and Cube
  • JAVA parallel processing framework
  • Now have 2,027 TAZs, will expand to 6,000 TAZs and a NAVTEC network
Some Insights

1. Day to day variation in travel is greater than variation between households – Brian Gregor

2. If a supply model passes impedances back to the demand model, even in small time slices, it is a feedback model not a dynamic model – Mark Bradley

3. Advanced choice techniques still focus on estimation year fidelity, not forecasting – Frank Koppelman
More Insights

4. If you break an optimization problem into pieces you will never get as good a fit as you will jointly estimating the model – Frank Koppelman

5. Primary application of DTA is operations, not forecasting – Hani Mahmasani

6. If you assume a single value of time then you will over estimate the response to congestion pricing – Hani Mahmasani
Solar Array on Parking Garage

ASU
Street Trees in Tempe
Desert in bloom – Palo verde
Light Rail Station
ASU
Fare Payment Kiosk
Metro Light Rail
Light Rail Station
Bus to rail connection
Bus to Rail

ASU station – police station to left
Use of recycled glass in station

ASU station
Desert Botanical Garden
Cacti in bloom
Desert Botanical Garden
Yuccas in bloom
Taliesin West
Frank Lloyd Wright’s western studio