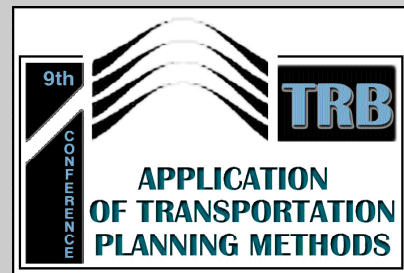


**9th TRB Conference
on the Application of
Transportation
Planning Methods**

Official Program



Hosted by:

- **Transportation Research Board**
- **Louisiana Transportation Research Center**
- **Louisiana Department of Transportation and Development**
- **Louisiana Planning Council**

**Radisson Hotel and
Conference Center
Baton Rouge, Louisiana
April 6-10, 2003**

TABLE OF CONTENTS

Conference Planners	1
Conference Information	3
Hotel Map	6
Program-At-A-Glance	7
TRB Welcome Reception (Sun.)	12
Technical Sessions (Mon.)	13
Technical Sessions (Tue.)	29
Technical Sessions (Wed.)	40
Technical Sessions (Thurs.)	52
PDH Documentation	54

CONFERENCE PLANNERS

Page 1

CONFERENCE PLANNERS

Committee on Transportation Planning Applications

Chair:

Jerry M. Faris, Transportation Support Group

9th TRB Conference Committee Chair:

Jon D. Fricker, Purdue University

TRB Staff Representative:

Kimberly M. Fisher, Transportation Research Board

Members:

Barbara J. Arens, Parsons Brinckerhoff Michigan, Inc.

Eugene L. Bandy, Baltimore Metropolitan Council

Richard K. Brail, Rutgers State University

Rick Donnelly, Parsons Brinckerhoff

Huey Dugas, Capital Region Planning Commission

Julie K. P. Dunbar, Dunbar Transportation

Consulting

Brian Gardner, Federal Highway Administration

Paul Hershkowitz, HNTB Corporation

Keith Killough, KLK Consulting

George T. Lathrop

Richard S. Marshment, University of Oklahoma

Karl H. Quackenbush, Central Transportation

Planning Staff

George L. Reed, TransTech Group, Inc.

Elizabeth S. Riklin, Federal Transit Administration

Thomas F. Rossi, Cambridge Systematics, Inc.

Karen Jones Savage, KJS Associates, Inc.

Eddie Shafie, Earth Technology, Inc.

Gordon A. Shunk, Texas Transportation Institute

Montie G. Wade, Texas Transportation Institute

Richard E. Walker, Metro Portland

William A. Woodford, KPMG Consulting

CONFERENCE PLANNERS

Page 2

Louisiana Transportation Research Center

Kirt Clement, Associate Director, Technology Transfer

*Allison Landry, Executive Services Assistant
Sandra Romero, LTRC Training Events Manager
Jenny Speights, IT/Web Production Manager
Vicki Dischler, Publications and Multimedia Manager*

Louisiana Department of Transportation and Development

*Kenneth Perret, Assistant Secretary, Office of Planning and Programming
Eric Kalivoda, Deputy Assistant Secretary, Office of Planning and Programming
Daniel Broussard, Statewide Transportation Planner*

Louisiana Planning Council

President:

Doug Mitchell, Ouachita Council on Governments

Members:

*Kevin Belanger, Terrebonne Parish Consolidated Government
Huey Dugas, Capital Region Planning Commission
Jim Harvey, Regional Planning Commission
Mike Hollier, Lafayette Area-wide Planning Commission
James Porter, Imperial Calcasieu Regional Planning and Development Commission
Kent Rogers, Northwest Louisiana Council of Governments
Keith Sayer, Rapides Area Planning Commission*

CONFERENCE INFORMATION

Page 3

Badge/Name Tag

Please remember to wear your conference badge/name tag at all times as this is your admission into all events.

Conference Headquarters

Conference Headquarters is located in the Executive Boardroom on the 1st Floor. The conference headquarters will be open Sunday - Thursday from 7:00 a.m. - 5:30 p.m.

Conference Luncheons

The conference luncheons will be held on Monday and Tuesday from 12:00 noon - 1:30 p.m. in Premier I. On Wednesday, there will be no conference lunch. Delegates are encouraged to visit one of the many restaurants conveniently located near the hotel or the hotel restaurant.

Conference Proceedings

A CD containing the conference proceedings will be mailed to all registered delegates after the conference by the TRB committee.

Exhibitors

Exhibits will be on display at the following times in Premier II: Sunday afternoon, Monday, 7:30 a.m. - 7:00 p.m. and Tuesday, 7:30 a.m. - 5:00 p.m. and will include an exhibitors' reception in Premier II on Monday evening from 5:00 p.m. - 7:00 p.m.

CONFERENCE INFORMATION

Page 4

Local Restaurants

Information on local restaurants is available at the conference registration desk located in Premier II.

Louisiana Seafood Night

On Wednesday night from 6:00 p.m. - 8:00 p.m., the Louisiana Planning Council will host the Louisiana Seafood Night, pool side (weather permitting). Come experience the uniqueness of traditional Louisiana fun and indigenous seafood. Attire for this event is very casual.

Message Board

Provisions have been made for a Message Board to be placed in the conference registration area in Premier II. Conference attendees may be contacted by calling the Baton Rouge Radisson Hotel and Conference Center at (225) 925-2244 and requesting the 2003 TRB Conference on the Application of Transportation Planning Methods.

Speaker Preparation Room

Speaker preparation equipment is located in the Conference Headquarters (Executive Boardroom, 1st Floor). This room contains audiovisual equipment for speakers to use in preparing for presentations. The room will be open Sunday - Thursday from 7:00 a.m. - 5:30 p.m.

CONFERENCE INFORMATION

Page 5

Special Needs

If you have special needs during the conference, visit the Conference Headquarters (Executive Boardroom, 1st Floor), and every effort will be made to accommodate your request.

Technical Tours

Technical tours for conference delegates will be available on Monday, April 7, and Tuesday, April 8, 2003. Delegates should schedule their tour at the registration desk as space allows.

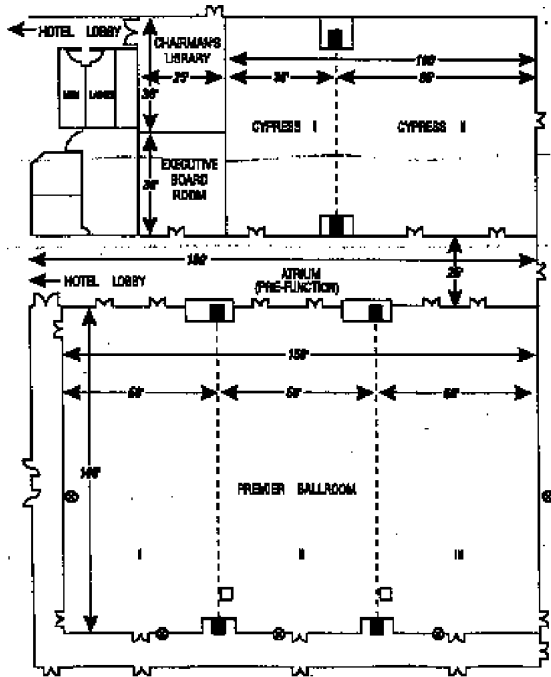
Preliminary plans for the technical tours include the following:

- A visit to the Traffic Management Center, a state-of-the-art center that encompasses multi-agency traffic control and emergency responses utilizing video monitoring, fiber optic connectivity and multifunctional inter-agency communication
- A visit to the Mississippi River Intracoastal Waterway Lock Structure
- A drive through of the Port of Baton Rouge, the seventh largest port in the United States
- A drive through Southern University and A&M College, one of the original historically black universities and colleges; and Louisiana State University, which is Louisiana's flagship public university.

Tourist Information

Tourist information is available at the conference registration desk located in Premier II.

HOTEL MAP



PROGRAM-AT-A-GLANCE

9th TRB Conference on the Application of Transportation Planning Methods

Conference Program-At-A-Glance

Sunday, April 6, 2003

- 12:00 p.m. - 6:00 p.m.
Conference Registration/Exhibitors (Premier II)
- 6:00 p.m. - 8:00 p.m.
TRB Welcome Reception (Premier I)

Monday, April 7, 2003

- 7:30 a.m. - 8:30 a.m.
Continental Breakfast (Premier II)
- 7:30 a.m. - 5:00 p.m.
Conference Registration/Exhibitors (Premier II)
- 8:30 a.m. - 10:00 a.m.
Session 1, Part 1 - Innovations in Travel Modeling (Premier III)
Session 2, Part 1 - Multimodal Case Studies (Cypress II)
Session 3, Part 1 - Environmental Justice (Cypress I)
- 10:00 a.m. - 10:30 a.m.
BREAK (Premier II)
- 10:30 a.m. - 12:00 noon
Session 1, Part 2 - Innovations in Travel Modeling (Premier III)
Session 2, Part 2 - Multimodal Case Studies (Cypress II)
Session 3, Part 2 - Environmental Justice (Cypress I)
- 12:00 p.m. - 1:30 p.m.
LUNCH (Premier I)

PROGRAM-AT-A-GLANCE

Page 8

- 1:30 p.m. - 3:00 p.m.
 Session 4, Part 1 - Data Collection and Surveys
 (Cypress I)
 Session 5, Part 1 - Statewide Models
 (Cypress II)
 Session 6, Part 1 - Safety/Access Management
 Planning (Premier III)
- 3:00 p.m. - 3:30 p.m.
 BREAK (Premier II)
- 3:30 p.m. - 5:00 p.m.
 Session 4, Part 2 - Data Collection and Surveys
 (Cypress I)
 Session 5, Part 2 - Statewide Models
 (Cypress II)
 Session 6, Part 2 - Corridor Studies
 (Premier III)
- 5:00 p.m. - 7:00 p.m.
 Exhibitors Reception (Premier II)

Tuesday, April 8, 2003

- 7:30 a.m. - 8:30 a.m.
 Continental Breakfast (Premier II)
- 7:30 a.m. - 5:00 p.m.
 Conference Registration/Exhibitors (Premier II)
- 8:30 a.m. - 10:00 a.m.
 Session 7, Part 1 - Multimodal Travel
 Forecasting (Cypress I)
 Session 8, Part 1 - Smart Growth (Cypress II)
 Session 9, Part 1 - Modeling Access
 Management (Premier III)
- 10:00 a.m. - 10:30 a.m.
 BREAK (Premier II)

PROGRAM-AT-A-GLANCE

Page 9

- 10:30 a.m. - 12:00 noon
 Session 7, Part 2 - Multimodal Travel
 Forecasting (Cypress I)
 Session 8, Part 2 - Smart Growth (Cypress II)
 Session 9, Part 2 - Statewide Management
 Systems (Premier III)
- 12:00 p.m. - 1:30 p.m.
 LUNCH (Premier I)
- 1:30 p.m. - 3:00 p.m.
 Session 10, Part 1 - TRANSIMS (Cypress I)
 Session 11, Part 1 - Multimodal Case Studies
 (Cypress II)
 Session 12, Part 1 - Federal Guidelines
 (Premier III)
- 3:00 p.m. - 3:30 p.m.
 BREAK (Premier II)
- 3:30 p.m. - 5:00 p.m.
 Session 10, Part 2 - Simulation Case Studies
 (Cypress I)
 Session 11, Part 2 - Multimodal Case Studies
 (Cypress II)
 Session 12, Part 2 - Project Assessment
 (Premier III)
- 7:00 p.m. - 9:00 p.m.
 Evening Session - Census Session (Cypress II)

PROGRAM-AT-A-GLANCE

Page 10

 Wednesday, April 9, 2003

7:30 a.m. - 8:30 a.m.

Continental Breakfast (Cypress I)

7:30 a.m. - 5:00 p.m.

Conference Registration (Cypress I)

8:30 a.m. - 10:00 a.m.

Session 13, Part 1 - Travel Model Design
(Premier II)Session 14, Part 1 - State and Local Policy
(Cypress II)Session 15, Part 1 - Technical Applications in
Data Collection (Premier III)

10:00 a.m. - 10:30 a.m.

BREAK (Cypress I)

10:30 a.m. - 12:00 noon

Session 13, Part 2 - Travel Model Design
(Premier II)Session 14, Part 2 - Urban Mobility
(Cypress II)Session 15, Part 2 - Technical Applications in
Data Collection (Premier III)

12:00 p.m. - 1:30 p.m.

LUNCH – On Your Own

1:30 p.m. - 3:00 p.m.

Session 16, Part 1 - State and Regional Freight
Models (Premier II)Session 17, Part 1 - Model Integration
(Cypress II)

Session 18, Part 1 - HOV/Pricing (Premier III)

3:00 p.m. - 3:30 p.m.

BREAK (Cypress I)

PROGRAM-AT-A-GLANCE

Page 11

3:30 p.m. - 5:00 p.m.

Session 16, Part 2 - State and Regional Freight
Models (Premier II)Session 17, Part 2 - Network Simulation
(Cypress II)

Session 18, Part 2 - HOV/Pricing (Premier III)

6:00 p.m. - 8:00 p.m.

Louisiana Seafood Night (Poolside/Weather
Permitting)

 Thursday, April 10, 2003

7:30 a.m. - 8:30 a.m.

Continental Breakfast (Atrium)

7:30 a.m. - 10:00 a.m.

Conference Registration (Executive Board Room)

8:30 a.m. - 10:15 a.m.

Closing Session, Part 1 (Cypress I & II)

10:15 a.m. - 10:30 a.m.

BREAK (Atrium)

10:30 a.m. - 12:00 noon

Closing Session, Part 2 (Cypress I & II)

12:00 noon - 1:30 p.m.

Lunch - On Your Own

1:30 p.m. - 4:00 p.m.

Louisiana Planning Council Business Meeting
(All conference delegates are invited to
attend)

TRB WELCOME RECEPTION

Page 12

9th TRB Conference on the Application
of Transportation Planning Methods
Radisson Hotel and Conference Center
Baton Rouge, LA

TRB WELCOME RECEPTION

Premier I

Sunday, April 6, 2003

6:00 p.m. - 8:00 p.m.

Welcoming Remarks

7:00 p.m. - 7:15 p.m.

*Jerry Farris, Chairman**TRB Subcommittee on Transportation Planning
Applications**Dr. Kam Movassaghi, Secretary**Louisiana Department of Transportation and
Development**Huey Dugas**Louisiana Planning Council*

SESSIONS

Page 13

TECHNICAL SESSIONS
MONDAY, APRIL 7, 2003
8:30 A.M. - 10:00 A.M.

The following information contains the technical session titles, the titles of the presentations, the names of the presenters or authors, and a short abstract of the presentations. Contact information and a copy of the full abstract are contained on the compact disc that you received when registering.

SESSION 1, PART 1 - Innovations in Travel
Modeling
PREMIER III
MODERATOR: THOMAS ROSSI

"A Model of Journey Frequency"

Bill Allen, Gordon Schultz

The New York Metropolitan Area model uses a microsimulation approach, in which individual travel is estimated. Instead of modeling "trips," this model estimates "journeys," defined as a sequence of movements having either home, work, or school at both ends. This presentation describes the journey frequency model.

"Implementation of a Tour-based Microsimulation
Regional Travel Demand Model"

*Rebekah Anderson, Ahmad Al-Akhras, Nicholas Gill,
Robert Donnelly*

The new modeling system for the central Ohio region features a tour-based approach that is implemented

SESSIONS

Page 14

using the microsimulation of individual activity and travel choices. The model includes a Household-Auto Ownership-Daily Activity-Tour model, a Tour Mode-Destination Choice Model, with an Attraction Sub-model, and a Sub-Tour/Trip Mode and Secondary Stops model.

“Gambling on Microsimulation in Las Vegas: Comparing a Microsimulation Approach with Traditional Aggregate Transportation Models”

Jim Lam, Howard Slavin, Joan Walker

Rather than using zones as the unit of analysis, the microsimulation approach uses a synthetically generated population and applies the models at the level of the individual (or household). This presentation presents the findings from two different implementations of models for Las Vegas: a disaggregate microsimulation implementation and a traditional aggregate implementation.

SESSION 2, PART 1 - Multimodal Case Studies
CYPRESS II

MODERATOR: PAUL HERSHKOWITZ

“Using Intersection-based Delay Algorithms to Determine BRT Operation Effectiveness”

Kyle Hauger, Richard Walker

Portland Metro’s South Corridor Transportation Alternatives study called for an evaluation of several transit investment strategies covering seven miles of two heavily-congested arterials; among them, Bus Rapid Transit (BRT). Specific strategies in the study permit BRT buses to receive a travel time and speed advantage over the auto. These include traffic signal preemption,...

SESSIONS

Page 15

“INTDAS: An Integrated National Transit Database Analysis System”

Ike Ubaka, Albert Gan

Transit agencies rely on various sources of data to help plan, manage, and improve transit facilities and services. Examples of these data include the National Transit Database (NTD) from the Federal Transit Administration (FTA), socioeconomic data from the Census Bureau and planning agencies, transit route data from transit agencies, land use data from county tax appraisal offices,...

“Trains to Planes: The DFW International Airport Rail Access Planning Study”

Greg J. Royster

The term “seamless transportation” is defined as a direct, efficient, convenient, and reliable system of travel. The challenge for any metropolitan area is to create such a system. The mission of the North Central Texas Council of Governments (NCTCOG), the Dallas/Fort Worth International Airport (DFW), Dallas Area Rapid Transit (DART), and the Fort Worth Transportation Authority (FWTA)...

SESSION 3, PART 1 -
ENVIRONMENTAL JUSTICE
CYPRESS I

MODERATOR: JON FRICKER

“Innovative Planning Tools to Address Title VI and Environmental Justice in the Planning Process”

Charles Goodman, Malaika K. Abernathy, Steve Strains, Scott Ericksen

Learn how three MPOs have developed analytical tools to assess their Title VI/EJ planning process enhanced their on-going public outreach efforts through an advisory

SESSIONS

Page 16

committee and secured the help of transportation equity advocates and university officials in developing their public involvement strategies.

SESSION 1, PART 2 - INNOVATIONS IN TRAVEL MODELING

PREMIER III

MODERATOR: THOMAS ROSSI

"Integrating Travel Demand and Traffic Microsimulation Models in San Francisco"

Joe Castiglione, Kyle Winslow

This presentation describes a process to leverage the capabilities of two types of models. It presents the methodology used to integrate the San Francisco Model, a state-of-the-art, disaggregate, activity-based behavioral travel demand forecasting model, with the Doyle Drive Microsimulation Model, an area-wide traffic microsimulation model.

"Investigation of Highway and Transit Assignment Variability in the San Francisco Tour-Based Microsimulation Model"

Joel Freedman, Joe Castiglione, Mark Bradley

A key difference between stochastic micro-simulation models and more traditional forms of travel demand forecasting models is that micro-simulation-based forecasts change each time the sequence of random numbers used to simulate choices is varied. This difference has significant implications for using these models to analyze policy; for each scenario being tested, the practitioners...

SESSIONS

Page 17

"Development of the Florida Activity Mobility Simulator (FAMOS)"

Ram Pendyala, Ryuichi Kitamura, Satoshi Fujii, Toshiyuki Yamamoto, Akira Kikuchi, Ike Ubaka

A multimodal comprehensive activity-based travel demand forecasting system for the state of Florida is presented. The presentation provides an overview of the model system together with a demonstration of its features and capabilities as a comprehensive transportation demand forecasting and policy analysis tool.

SESSION 2, PART 2 - MULTIMODAL CASE STUDIES

CYPRESS II

MODERATOR: PAUL HERSHKOWITZ

"Using the Principles and Rigor of NEPA in Long-Range Planning"

Craig T. Casper

The Bay-Lake Regional Planning Commission's Northside Traffic Circulation Study evolved out of a long-standing controversy in Sheboygan, Wisconsin. Wilbur Smith Associates (WSA) was contracted in 1999 to undertake a 12-month study to recommend the most efficient and effective thoroughfare plan for a sub-region of the Metropolitan Planning Area...

"Link-Based Calculation of Motor Vehicle Air Toxin Emissions Using Mobile 6.2"

William R. Stein, Richard Walker

EPA's MOBILE 6.2 model allows transportation planners to respond to community concerns by calculating air toxin emissions from motor vehicles. Metro partnered with EPA, ICF Consulting, and the Oregon Department of Environmental Quality in estimating emissions of 27 hazardous air pollutants at the link and zone level...

SESSIONS

Page 18

"Ridership Forecasting for Light Rail New Start"**Larry Englisher, Marc Warner and Bruce Kaplan**

The St. Louis metropolitan area has expanded its successful light rail transit system known as MetroLink. The initial segment of MetroLink was opened in 1993 and ridership on this segment exceeded the forecasts. The first extension of MetroLink, which opened in May 2001, extends 17.4 miles east from East St. Louis to Southwestern Illinois College (SWIC)...

SESSION 3, PART 2 -
ENVIRONMENTAL JUSTICE
CYPRESS II
MODERATOR: JON FRICKER

"Tools and Measures of Effectiveness for Assessing Environmental Justice"**Darrell L. Howard**

This paper will explore the incorporation of measures of effectiveness for transportation equity and propose possible tools for assessing the benefits and burdens of transportation investments. In addition, this paper will discuss methods for improving the overall development of transportation plans especially as it relates to minorities and low-income populations in the decision making process.

"Project Benefit Analysis: Proximity to Transportation Facilities Is Not a Self-evident Benefit to Those in Immediate Vicinity"**Tracy Reed**

GIS-based analyses of demographics, employment security department and travel forecast data were employed to examine three types of potentially offsetting travel benefits. The results showed how transit travel time

SESSIONS

Page 19

savings and job accessibility improvements would be distributed among minority and low-income populations. In this way, the impacts of a light rail project could be assessed more objectively.

MONDAY, APRIL 7, 2003
1:30 P.M. - 3:00 P.M.

SESSION 4, PART 1 - DATA COLLECTION AND SURVEYS
CYPRESS I
MODERATOR: RICHARD MARSHMENT

"Monte Carlo Simulation of Household Travel Survey Data with Bayesian Updating"**Sirisha Kothuri, Peter Stopher, Phillip Bullock**

This paper describes how Monte Carlo simulation can be used to simulate characteristics that would be collected from a household survey. The procedure is demonstrated on data from the Dallas, Ft. Worth, and Salt Lake City regions. The procedure offers a low-cost alternative to household travel surveys.

"Using a Multimode Survey Strategy to Capture Highly Mobile Households in Household Travel Surveys"**Heather Contrino, Johanna Zmud**

This paper analyzes the impact of using both computer-assisted telephone interviews and the Internet to ensure a representative sample of highly mobile households in household travel surveys. The paper compares participation using travel survey data from Los Angeles and St. Louis which used different methods of data collection.

SESSIONS

Page 20

"Texas Border Crossing Travel Surveys: Overview of Survey Methods, Results, and Lessons Learned"

Edwin Hard, David Pearson

This paper reports average trip lengths, trip purposes, commercial vehicle cargos, and local versus through trips estimated from roadside interviews, license plate match and mail surveys, and interviews with commercial vehicle operators at truck stops, for travelers at border crossings around the state.

SESSION 5, PART 1 - STATEWIDE MODELS
CYPRESS II

MODERATOR: GORDON SHUNK

"Oregon's Transportation and Land Use Model Integration Program: Recent Progress"

J.D. Hunt, Rick Donnelly

In 1996, the Oregon DOT began development of new integrated land use transportation models. Phase one included development of prototypes. Subsequent work has focused on application of the prototypes, as well as specification and development of new models. This presentation summarizes progress to date, with particular emphasis on recent work.

"A Macro-Micro Approach in Developing the Louisiana Statewide Model"

Tom Cooney, Supin L. Yoder

Because statewide modeling methods are less mature than urban modeling methods, there were many needs and opportunities for innovative approaches in developing the Louisiana Statewide Model, including: a macro-micro modeling framework, an activity-based zone structure, and NPTS and ATS-based long and short distance travel market segmentation, trip generation and distribution.

SESSIONS

Page 21

"A Synthesis of Zonal Structures and Demographics for Statewide Models"

Thomas A. Williams

This paper is a discussion of statewide modeling, focusing on zonal geography and demographic development in the context of the purpose and need for, and application of, statewide models. The paper is a synthesis describing five statewide model zone structures and associated demographics developed in Texas, Kentucky, Louisiana, Mississippi, and Virginia.

SESSION 6, PART 1 - SAFETY/ACCESS MAN-
AGEMENT PLANNING

PREMIER III

MODERATOR: EDDIE SHAFIE

"Lessons Learned While Implementing a Program for Access Management in Texas"

Grant G. Schultz, William L. Eisele, William E. Frawley

The Texas Department of Transportation (TxDOT) recently sponsored research through the Texas Transportation Institute (TTI) to provide recommendations for implementing a comprehensive access management program with the State. The research includes a provision to produce an Access Management Guidebook for Texas...

"New Developments in Traffic Safety Planning: The Metropolitan Houston Traffic Safety Program"

Ned Levine

This paper will discuss the traffic safety program of the Houston-Galveston Area Council (H-GAC), the Metropolitan Planning Organization (MPO) for the eight counties around Houston. The program has six basic components, partly modeled on the Federal Hazard Elimination Program...

SESSIONS

Page 22

"Downtown Brooklyn Traffic Calming Project"

Seth Berman

In New York City, Downtown Brooklyn is a major cultural and institutional center that serves as a gateway to Manhattan. This diverse neighborhood contains educational, institutional and cultural attractions, and historic residential communities where traffic intrusion is a major quality-of-life concern...

MONDAY, APRIL 7, 2003
3:30 P.M. - 5:00 P.M.

SESSION 4, PART 2 - DATA COLLECTION AND SURVEYS

CYPRESS I

MODERATOR: RICHARD MARSHMENT

"Estimating the Effects of a Commuter Fringe Benefit Program"

Thomas Adler, Stacey Falzarano, Reed Bergwall, Shawn Donovan

The Dartmouth Commuter Fringe Benefit Survey was a web-based revealed and stated preference survey of current parking and travel behavior as well as likely behavior given different fringe benefit programs. This paper describes the survey and the logit choice model constructed from the collected data for Dartmouth College employees.

"Assessing Sampling Biases and Establishing Standardized Procedures for Weighting and Expansion of Data"

Fahmida Nilufar

This paper documents the state-of-the-practice on current methods of controlling for survey bias, survey error, and survey quality. The paper describes weighting and

SESSIONS

Page 23

factoring techniques at the household, person, and trip levels.

"Land Use Forecasting Methods in Ohio"

Nick Gill, David Schmitt

This paper describes the land use forecasting methods used by sixteen Ohio metropolitan planning organizations as determined from a survey conducted by the Ohio Travel Demand Model Users Group.

SESSION 5, PART 2 - STATEWIDE MODELS
CYPRESS II

MODERATOR: GORDON SHUNK

"Ohio's Interim Statewide Travel Demanding Forecasting Model"

Greg Giaino

The Ohio Department of Transportation's statewide travel demand forecasting model is an ambitious microsimulation of both passenger and commercial travel projected to be complete in 2005. In the mean time, ODOT and its consultants have developed an interim model capability. This model consists of the final model's highway network and car and truck trip tables developed from roadside surveys, MPO trip tables, and traffic counts. The trip table is then factored to forecast years using factors developed from forecasts of population and employment. The model is being applied for planning level corridor and systems analysis in support of the state's long-range transportation plan update and congestion management system.

SESSIONS

Page 24

"A State-of-Practice, Link Free-Flow Speed Estimation for the Indiana Statewide Travel Demand Model"

Kyeil Kim, Vince Bernardin

This paper presents a recent practice to estimate correct link free-flow speed for the Indiana Statewide Travel Demand Model based on travel speed data collected from field surveys and recommends varying free-flow speed by area type, functional classification, posted speed, and the number of lanes of the roadway.

"The California Statewide Travel Model: A Collaborative Approach"

Michael Aronson, Richard Dowling, Mary Rose Repine

The new multimodal statewide travel model for California has been developed using a unique collaborative approach between the California Department of Transportation (Caltrans), other state agencies, and consultant staff. The model was developed through a series of classes in modeling practice and software application. Agency and consultant staff worked together to complete each component of the model as class assignments.

SESSION 6, PART 2 - CORRIDOR STUDIES
PREMIER III

MODERATOR: EDDIE SHAFIE

"NCHRP-255 Alive and Well"

Dan Goldfarb

The use of travel demand forecast models for project planning has increased over time. These models generate travel demand projections based on land-use forecasts and the planned transportation infrastructure. These projections are utilized by both public agencies and private funding organizations for determining project feasibility...

SESSIONS

Page 25

"Analyzing the Vehicle Delay Reduction Associated with Constructing Grade-Separated Railroad Crossings"

Jerry K. Shadewald, Clyde Prem

The Hoeven Valley is an industrial area east of downtown Sioux City, Iowa, located adjacent to an interstate freeway and served by three rail lines. There are few grade-separated rail crossings, resulting in significant delays to east-west vehicle travel into downtown. In an attempt to spur future economic development within the area, a comprehensive look...

"Environmental Impact Study for the Extension of I-69 in Southwest Indiana"

Michael Grovak, Steven Smith, Vincent Bernardin, Thomas Cervone

The Indiana Department of Transportation is nearing completion of a Tier 1 Environmental Impact Study for the extension of Interstate 69 from Indianapolis to Evansville, in southwest Indiana...

TUESDAY, APRIL 8, 2003
8:30 A.M. - 10:00 A.M.

SESSION 7, PART 1 - MULTIMODAL TRAVEL
FORECASTING

CYPRESS I

MODERATOR: JULIE DUNBAR

"Alternate Approaches to Modeling Work Trip Mode/Destination Choice: Sacramento, California"

John Gibb, Bruce Griesenbeck

Historically, nested logit models for mode choice have been implemented with alternatives grouped into nests by mode of travel. This presentation will highlight the evaluation of alternative nesting structures for a work-

SESSIONS

Page 26

commute mode choice model, the related examination of in-vehicle time coefficients and transit access, and the estimation of a destination choice model.

"Parking Cost, Time-of-Day, and Vanpool Models for the Puget Sound Regional Council"

Maren L. Outwater, Larry Blain, Arun R. Kuppam

Cambridge Systematics is assisting the Puget Sound Regional Council (PSRC) in implementing short-term improvements to the current regional travel forecasting model. This presentation will highlight the parking cost, time-of-day, and vanpool models that are being developed. The addition of these three models greatly improve the PSRC model from a travel behavior perspective.

"Forecasting Traffic for an HOV Lane from Feasibility Study to Preliminary Design"

Ronald Eash, Andrew Stryker, Cathy Chang

This presentation compares the modeling procedures followed in recent feasibility and preliminary design efforts for the addition of an HOV lane to the Eisenhower Expressway in metropolitan Chicago. The overall theme is how modeling procedures have to adapt during a lengthy, somewhat repetitive facility-planning process that shifts focus from evaluation to design.

SESSION 8, PART 1 - SMART GROWTH
CYPRESS II

MODERATOR: JERRY FARIS

"Quantitative Assessment of the Maryland Smart Growth Initiative"

Brad S. Lane

Presentation will address the lack of quantitative data on the impacts of Smart Growth measures by presenting results from two recent modeling exercises (Parole

SESSIONS

Page 27

Center, Annapolis and Owings Mills Town Center) that were conducted as part of the Maryland's Smart Growth Initiative and suggest directions of future research efforts.

"Chicago Balanced Growth Study"

Ronald Shimizu

Presentation will address an IDOT smart growth study initiated in 1999 for the city of Chicago addressing traffic, pedestrian, bicycle, and transit issues. The study resulted in a set of practical solutions from the site-specific case studies, as well as programmatic guidelines and a toolbox of balanced growth strategies.

"Filling Up Faster: Induced Travel Demand Implication for Transportation and Land Use"

Ria Hutabarat

This presentation reports on a comparative case study analysis of transportation planning examples (Chicago's I-355 project and Portland's LUTRAQ Model) involving transportation and land-use implications of induced travel demand. Induced travel demand arises when vehicle miles traveled increase as a result of increases in highway capacity.

SESSION 9, PART 1 - MODELING ACCESS MANAGEMENT

PREMIER III

MODERATOR: BARBARA ARENS

"Quantifying Access Management Benefits Using Traffic Simulation"

Jerry K. Shadewald, Clyde Prem

The San Antonio - Bexar County Metropolitan Planning Organization has identified several developing corridors to be designed using access management techniques.

SESSIONS

Page 28

This action is a result of several existing arterial corridors which already have congestion problems associated with uncontrolled access to adjacent land uses. A traffic analysis was conducted using the traffic simulation programs...

"Dynamic Access Management and Planning"

Phillip Ullman, Brian Swindell, Will Hagood

Attempting to relieve congestion within a growing metropolitan area usually requires a dynamic study process. Add extensive new development within a super-interchange for a planning and political challenge, where mobility and local access concerns compete for emphasis. The project required complex 25-year horizon regional travel demand modeling and a complex vehicle behavior...

"Lessons Learned While Assessing the Impacts of Access Management Treatments Using Vissim"

William L. Eisele, William E. Frawley, Laurence R. Rilett, Kristin C. Turner, Anna T. Griffin

Researchers created theoretical corridors and used VISSIM to simulate the impact of various access management strategies. Lessons learned from using VISSIM for simulating access management treatments will be presented. Preliminary analyses related to travel time and delay impacts will be presented as well as sensitivity analyses on traffic volume, median type, and driveway location.

SESSIONS

Page 29

TUESDAY, APRIL 8, 2003
10:30 A.M. - 12:00 NOON

SESSION 7, PART 2 - MULTIMODAL TRAVEL

FORECASTING

CYPRESS I

MODERATOR: JULIE DUNBAR

"Development of a Transit Model Incorporating the Effects of Accessibility and Connectivity"

Ram M. Pendyala, Ike Ubaka, Steve Polzin, Xuehao Chu, Fadi Nassar, Wade White

During recent years, the Florida DOT has funded development of easy-to-use transit demand forecasting models for use in the current resource and staff-constrained environment. This presentation will provide an overview of this new model, along with an explanation of the accessibility measures, model calibration, and model validation results.

"A Market Segmentation Approach to Mode Choice and Ferry Ridership Forecasting"

Maren L. Outwater, Vamsee Modugula, Steve Castleberry, Pratyush Bhatia

The San Francisco Bay Area Water Transit Authority is evaluating expanded ferry service. This presentation will focus on the application of the new mode choice model that was developed for this effort, including tests of pricing policies, service changes and alternative transit modes. The results from this effort were used to support the preparation of an environmental impact statement and related operating plans.

SESSIONS

Page 30

"User Benefits and Multimodal Project Evaluation"

Jim Ryan

This presentation will describe the latest developments in the calculation of user benefits for Federal Transit Administration New Starts applications. Discussions will cover insights gained from the evaluation of New Starts projects in the fall of 2002 and ideas for future directions.

SESSION 8, PART 2 - SMART GROWTH
CYPRESS II

MODERATOR: JERRY FARIS

"Chicago Metropolis: The Business Community Develops and Integrated Land Use/Transportation Plan"

Brian Grady

This presentation reports on the Baltimore Metropolitan Council's Vision 2030 evaluation of four different scenarios: Current Trends and Plans, Emphasis on Road Capacity, Emphasis on Mass Transit, and Emphasis on Redevelopment. Model enhancements included: feedback loops, addition of non-motorized and removal of some area-specific adjustment factors.

"Coordination of Land Use/Transportation Studies at the Parish and Sub-Parish Level"

Lynn Dupont

This presentation describes the land/transportation planning studies for three parishes in southeast Louisiana. Studies were part of a regional initiative to gather data on existing land use and to project future land use. This innovative process has served as a guide for other parishes in the region.

SESSIONS

Page 31

SESSION 9, PART 2 - STATEWIDE
MANAGEMENT SYSTEMS

PREMIER III

MODERATOR: HUEY DUGAS

"Ohio's Statewide Congestion Analysis Process"

Greg Giaino

As part of its new congestion analysis system, ODOT has developed an analysis process which summarizes operating conditions and provides a first screen of potential congested locations. The analysis process calculates operating conditions on each segment using 2000 Highway Capacity Manual procedures and compares those conditions to a congestion threshold...

"Louisiana State Transportation Plan"

Dale Janik

The Louisiana Department of Transportation and Development (LADOTD) has been working with a consultant team over a two-year period to update the state's 1996 Statewide Transportation Plan. This new effort builds upon the work in the 1996 Plan and incorporates several important components. The presentation summarizes the approach and results of the plan...

"Application of Highway Crash Frequency Prediction Model for Highway Transportation Planning"

Hong Zhang

This presentation will introduce the application of a two-lane, rural highway crash-frequency prediction model to identify the locations with safety concerns. The calibration procedure is conducted by using the expected number of crashes predicted by the model and the historical Louisiana highway crash records. The results of this study provide key information...

SESSIONS

Page 32

TUESDAY, APRIL 8, 2003
1:30 P.M. - 3:00 P.M.

SESSION 10, PART 1 - TRANSIMS
 CYPRESS I

MODERATOR: RICK DONNELLY

"TRANSIMS GEN2 Model Specifications for the Portland Test Case"

T. Keith Lawton, William A. Davidson

The Portland test case is the first full examination of TRANSIMS within the context of model application to real-world scenarios. This presentation focuses on the TRANSIMS model specifications for the development and implementation of a second generation (GEN2) modeling system for Portland. Each component from the population synthesizer to the router and micro-simulator will be reviewed.

"TRANSIMS Model of Blacksburg Virginia"

Mike Bridges, Antoine Hobeika

The development and application of a complete working TRANSIMS model of Blacksburg, VA, will be described. Database development will be summarized, as well as results of the TRANSIMS application, including network views, thematic maps of model results, various reports, and live three-dimensional simulations of traffic and time-dependent measures of effectiveness.

"Using Traditional Model Data for Microsimulation and Emission Estimates"

David B. Roden

A comparison of traditional regional travel model emission estimates for the Portland region will be contrasted

SESSIONS

Page 33

with TRANSIMS emissions estimates. The conversion process will be described, as well as results and comparison to the regional model results. A summary of additional tests and comparisons that are being investigated for FHWA and EPA will be discussed.

SESSION 11, PART 1 - MULTIMODAL CASE
 STUDIES

CYPRESS II

MODERATOR: KAREN SAVAGE

"A Multidisciplinary Approach to Feeder Bus Planning"

Katharine Eagan, Curvie Hawkins, Jr.

Two multidisciplinary teams were assembled to plan feeder bus routes to serve four new stations on the Dart Blue Line, and one relocated and nine new stations along the Dart Red Line's northern extension. Work was completed within tight deadlines and in coordination with affected communities.

"Making Bus Better in Chicago: Strategic Implementation of Customer-Derived Satisfaction Measures from 1995-2000: What Worked - What Didn't"

Peter J. Foote

This presentation will document the methods used to measure and improve CTA customer satisfaction and loyalty from 1995-2001, identify critical drivers of CTA customer satisfaction, and discuss the grouping of customer-defined service measures into summary performance dimensions.

SESSIONS

Page 34

"Congestion Mitigation Systems Plan 2020 (CMS 2020)"

Michael L. Morehouse, Melissa M. Leigh

An innovative framework was developed to evaluate the impact on travel demand of various corridor improvements. The framework integrated Connecticut DOT's travel demand model with FHWA's STEAM model and GPS technology to update travel time skim tables to better reflect real world congestion conditions.

SESSION 12, PART 1 - FEDERAL GUIDELINES
PREMIER III

MODERATOR: MONTIE WADE

"FTA's Before and After Study: An Introduction and Early Experiences"

Sean Libberton

FTA's Final Rule on Major Capital Investment Projects requires that sponsors of transit fixed guideway projects entering into a New Starts Full Funding Grant Agreement perform an analysis of the impacts of their projects and the accuracy of the forecasts that were prepared during planning and project development. This presentation expands insights into the costs and impacts of major transit investments...

"TMIP at 10: Envisioning the Future of the Travel Model Development Program"

Brian Gardner

TMIP was created to improve travel forecasting. It created tracks of activity focused on improvement to existing procedures as well as redesigning the process. TMIP has recently developed a new vision that balances technology development with training to model users. It has broadened to include data collection, land-use forecasting, GIS, Safety, and Security issues. Goals include...

SESSIONS

Page 35

"The Journey to MPO Foundation: This was then, this is now."

Robin Mayhew

FTA, in coordination with FHWA, funded the development of case studies of 10 active MPOs that were designated subsequent to the 1990 Census. The Year 2000 Census has identified new UZAs who, in turn, need to either form new free-standing MPOs, or affiliate with an existing MPO. The purpose of these case studies is to provide a first hand, general flavor of the initial steps in the MPO formation process...

TUESDAY, APRIL 8, 2003
3:30 P.M. - 5:00 P.M.

SESSION 10, PART 2 - SIMULATION CASE
STUDIES

CYPRESS I

MODERATOR: BARBARA ARENS

"A Microscopic Traffic Simulation Model of Midtown Manhattan"

James A. Donnelly, Vassilis Papayannoulis, J. D. Paul McMillan, Timothy Jester, Daniel Frankfurt

The effect of proposed road closures on traffic conditions due to the planned rehabilitation of the 11th Avenue Viaducts in midtown Manhattan, New York City, were assessed. A micro-simulation model using a dynamic-stochastic route assignment method would be best suited for comparing the operational impact of various Maintenance and Protection of Traffic (MPT) plans...

SESSIONS

Page 36

"Miami Downtown Transportation Master Plan (MDTMP) Study"

D.S. Leftwich, A.J. Perez, R. Ramirez

The Miami Downtown Transportation Master Plan (MDTMP) project micro-simulation model has been developed using the PARAMICS modeling suite. There are two related but separate components in the simulation for the Miami Downtown Transportation Master Plan project. The validation component replicates existing conditions while the Future Analysis forecasts travel based...

"Bridging the Data Gap Between Travel Demand Models and Micro-Simulation Analyses with a Spreadsheet-Based Approach"

Ron West

A spreadsheet-based model was developed for two congested northern California highway corridors. The model post-processes regional travel demand model data in a streamlined manner and develops detailed information needed for micro-simulation analyses. The spreadsheet model can easily be adapted to a number of corridor study applications and provides useful performance measures...

SESSIONS

Page 37

SESSION 11, PART 2 - MULTIMODAL CASE STUDIES

CYPRESS II

MODERATOR: KAREN SAVAGE

"TDM Effective Evaluation Model (TEEM): an Analytical Tool for Testing TDM and Land-Use Strategies in a Corridor Context"

William R. Loudon, Dustin K. Luther

The Washington State Department of Transportation sponsored the development of a model to forecast the potential effectiveness of TDM and land-use strategies as part of a major investment study for the SR 520 Trans-Lake corridor. The model was used to evaluate 15 different TDM strategies in relation to AM peak and daily vehicle trips, VMT, and person throughput.

"Transportation Utility Fee: The Oregon Experience"

Carl D. Springer

This presentation will summarize the experience of Oregon agencies that have adopted transportation utility fee (TUF) programs to augment their maintenance budgets, with particular focus on Clackamas County. The County used a combination of ITE information and regional travel demand estimates to develop a comprehensive approach to better account for the diversity of land uses...

"Coordinated Federal and State Environmental Processes for Doyle Drive - A Case Study"

Dina Potter, Susan Killen

This case study demonstrates the multiagency, multidisciplinary, and multilevel coordination process created to develop broad consensus among three federal land managers and FHWA and over 12 key state and regional agencies throughout the environmental evaluation process for the Doyle Drive approach to the Golden Gate Bridge.

SESSIONS

Page 38

SESSION 12, PART 2 - PROJECT ASSESSMENT
PREMIER IIIMODERATOR: MONTIE WADE

"TAPS: A Customizable Transportation Automated Prioritization Software and Evaluation Methodology to Score and Rank Thoroughfare System Improvements"

Edith B. Ngwa

How should one embark on the process of developing a CIP program for roadway improvement that is reflective of their jurisdiction, financial, environmental, and transportation priorities? How should proposed improvements be scored and ranked under such a program? What factors should be included in the rating system/evaluation methodology? What new technology tools, if any, should be utilized to automate the scoring and ranking process?

"Pair-wise Comparison Method for Evaluation of ITS Investments"

Huey P. Dugas

This paper addresses the issue of measuring the benefits and effectiveness of Intelligent Transportation System (ITS) devices. It demonstrates a technique for comparison of the benefits of specific ITS systems relative to one another and relative to the stated objective of a particular device. It also shows that by comparing the benefits, and costs of ITS to capacity projects each can be deployed in a more efficient and effective manner...

"Analysis of User Benefit Results: Findings and Observations"

Eric Pihl

The denominator of FTA cost-effectiveness measure has recently been replaced by a measure that quantifies hours of system-wide benefits. The approach relies on estimates of benefits, or utility, that accrue to all transportation system users. This presentation will identify

SESSIONS

Page 39

and describe the characteristics of transportation alternatives that are likely to produce positive user benefits, and the markets in which system benefits are likely to accrue.

TUESDAY, APRIL 8, 2003
7:00 P.M. - 9:00 P.M.

EVENING SESSION - CENSUS SESSION
CYPRESS IIMODERATOR: BOB SICKO

"Introduction to the Census Transportation Planning Package"

Celia Boertlein

"A New Angle to Learning - The CTPP Electronic Guidebook"

Ed Christopher

"Census Data in the MPO"

Bob Paddock

"A Walk through Time - A Look at the Journey-to-Work Trends"

Nancy McGuckin

The information derived from the year 2000 census is becoming increasingly more accessible to the planning community. The presentations in this session will discuss some of the key data elements, the tools that are available for use in accessing the data, and a review of the emerging trends.

SESSIONS

Page 40

WEDNESDAY, APRIL 9, 2003
8:30 A.M. - 10:00 A.M.

SESSION 13, PART 1 - TRAVEL MODEL DESIGN
 PREMIER II

MODERATOR: RICK DONNELLY

"The Promise and Pitfalls of Mixed Logit Models"

Joan Walker

Mixed logit models are presented as the logical progression in discrete choice models. This formulation overcomes many limitations of logit and nested logit models. This presentation will present a background on mixed logit models, along with advantages, disadvantages, and practical issues in implementation. Empirical results using such models will also be presented.

"MPO Travel Demand Modeling Requirements Survey"

Tom Walker, Fred Abousleman

This paper presents summaries of current MPO transportation and land use modeling practices and improvement plans, air quality modeling, conformity procedures, and other modeling topics obtained through surveys of MPOs. A discussion of MPO current modeling practices, upgrades to achieve best modeling practices, and upcoming legislation follows the presentation of the survey results.

"R Transport Model: Developing Open-Source Urban Transportation Models Using the R Programming Language"

Brian Gregor

The Oregon Department of Transportation (ODOT) has developed a set of transportation modeling programs for

SESSIONS

Page 41

small urban areas in the state using the R programming language. This follows the development of small urban models jointly estimated using data from across the state. The results and benefits from implementing open source models will be discussed.

SESSION 14, PART 1 -
 STATE AND LOCAL POLICY

CYPRESS II

MODERATOR: HUEY DUGAS

"Planning Process and Methods Guidance for Transit Development Planning in Florida"

Steve Polzin

This presentation will address the role of the state in providing service planning guidance to local transit properties, review how elements of the process are prescribed and discuss some of the methods guidance that the state has provided. The FDOT involvement is governed by a combination of stewardship responsibility for the taxpayers'...

"Public Involvement Process: A Critical Element in Establishing Transit Centers"

Paul Steffens

Discover how the city and county of Honolulu, Hawaii, used the public involvement process to convert its public transit, fixed-route system from a radial operation to a hub-and-spoke system. Discover the importance of public involvement in deciding on transit center/hub locations and the significance of reaching out to all ethnic populations. The lessons learned in Phase I, as they were applied to Phase II of the conversion...

SESSIONS

Page 42

"Guiding Future Investments in Minnesota's Transportation Systems and Services: A Performance-Based Approach to Long-Range Planning"

Jacqueline Corkle

The focus of this presentation is the development of the Minnesota Department of Transportation's long-term Statewide Transportation Plan. Included in the presentation is a discussion of the framework, as well as the performance measures and targets, used in developing one of the nation's first performance-based, comprehensive, long-term transportation plans.

SESSION 15, PART 1 - TECHNICAL APPLICATIONS IN DATA COLLECTION

PREMIER III

MODERATOR: GENE BANDY

"GPS Measurement of Travel Times, Driving Cycles, and Congestion"

Philip Bullock, Peter Stopher, Chester Wilmot

This paper describes applications in Sydney, Australia, in which the GPS devices have been used to collect data on automobile trips within the urban area, with the goal of developing information about travel times, driving cycles, and the incidence and severity of congestion.

"Using Real-Time GPS Data to Develop Roadway Travel-Time Profiles for Transportation Modeling"

David Faria

The quality of peak or 24-hour travel forecasts used for short- and long-range transportation planning is based, in large part, on the average travel times and speeds of roadway facilities. Automatic Vehicle Location (AVL) technologies can be used in the development of travel-time and speed profiles, thereby negating the need for expensive annual travel-time surveys.

SESSIONS

Page 43

"Global Positioning Systems for Supplying Input Data to MOBILE6"

Srinivas Varanasi

This paper presents a concept study in using the Global Positioning Systems (GPS) for supplying the vehicle fleet and vehicle activity requirements to MOBILE6. The GPS data collected from a sample of vehicles are transferred into TransCAD software, converted into the required MOBILE6 form, and compared with MOBILE6 default values.

WEDNESDAY, APRIL 9, 2003
10:30 A.M. - 12:00 NOON

SESSION 13, PART 2 - TRAVEL MODEL DESIGN
PREMIER II

MODERATOR: RICK DONNELLY

"Analysis of Link Capacity Estimation Methods for Urban Transportation Planning Models"

Yogesh Dheenadayalu, Brian Wolshon, and Chester Wilmot

Research focusing on different techniques to determine what information was necessary to reasonably estimate link capacity while decreasing the time, effort, and cost of data collection will be described. Significant findings, such as the value of link-specific capacity estimates and economy in specifying physical and operational parameters, will be highlighted.

SESSIONS

Page 44

"Method to Identify Optimal Land Use and Transport Policy Packages"

Guenter Emberger, Tony May, Simon Shepherd, Agachai Sumalee

A new integrated land use transport modeling approach is described that combines a CBA-based appraisal framework and an automated optimization process to identify optional land use and transport strategies. Comparisons are made to planning policies, and an iterative optimization process is used to derive optimal policy combinations.

SESSION 14, PART 2 - URBAN MOBILITY
CYPRESS II

MODERATOR: BRIAN GARDNER

"Alternative Approaches to Special Market Travel Analysis"

Eric Pihl

Alternative approaches for estimating special market travel demand will be described that focus on off-model treatment of special travel markets. A prototype spreadsheet model that incorporates inputs to conventional travel models will be demonstrated. The discussion will include real-world examples of output measures and their usefulness in both project and system level planning.

"The Travel Time Index - A Versatile Tool for Mobility Measurement"

David Schrank

The Texas Transportation Institute has developed a highly scalable methodology to measure mobility. The methodology has been used to evaluate arterial, HOV, and LRT systems. The methodology can be used to measure the effectiveness of transit, signal coordination on arterial

SESSIONS

Page 45

corridors, freeway ramp metering, incident management programs, as well as other corridor regional improvements.

"Situational Sketch Planning: A Model of the Model"

David B. McBrayer

This paper discusses extraction of data from an area's mode choice model and its use in constructing simplified analyses of transit route alternatives with a specific example taken from recent study of light rail transit alternatives. The discussion includes some alternative methodological approaches.

SESSION 15, PART 2 - TECHNICAL APPLICATIONS IN DATA COLLECTION

PREMIER III

MODERATOR: GENE BANDY

"Turning Transportation Planning Data into Effective Web Sites"

Andres Rabinowicz

This paper provides a technical background about web mapping applications in the context of transportation planning. The Web offers a unique opportunity to disseminate to large audiences interactive results of transportation studies. From a software architecture perspective, there are important technical differences between a desktop GIS application and a web mapping application.

"An Expert System for Projecting Traffic on Arizona's Rural State Highways"

Thomas A. Cooney, Joseph Flaherty

The Arizona DOT's Expert System Projections (ESP) software is a tool incorporating statistics-based procedures for identifying and eliminating certain kinds of bad count

SESSIONS

Page 46

data, and standardized mathematical procedures for generating traffic forecasts from historical count data. This presentation discusses the lessons learned in developing and using the ESP procedures.

"Ports to Plains Environmental Baseline Digital Document"

Andrew Poth and Ashley McLain

Hicks & Company created a 100 percent paperless environmental baseline document covering the 62,000 square mile Ports to Plains corridor from Denver to Laredo. The digital document presents mapped and narrative environmental information via downloadable and inter-operable GIS and PDF software. Andrew Poth will demonstrate the GIS data layers and text.

WEDNESDAY, APRIL 9, 2003
1:30 P.M. - 3:00 P.M.

SESSION 16, PART 1 - STATE AND REGIONAL
FREIGHT MODELS
PREMIER II
MODERATOR: ERIC KALIVODA

"CTPS Truck Trip Demand Model Innovations"
Ian E. Harrington, David S. Kruse, Lawrence H. Titterton

The CTPS truck travel model predicts commercial vehicle highway travel by nine functional usage categories, each with relatively homogeneous travel characteristics. The modeling approach is tour-based, reflective of truck travel behavior, and internally integrated. It is driven by regional socioeconomic activity, traffic and vehicle classification counts, and by external vehicle counts.

SESSIONS

Page 47

"An Innovative Approach to Truck Modeling"

Paul Agnello, William G. Allen, Jr.

A new Truck Model has been developed for the Baltimore Region using an innovative approach called adaptable assignment. Adaptable assignment is a practical method of synthesizing a trip table from count data. The new model accounts for major trucking facilities, land use, truck prohibitions, and truck passenger car equivalencies (PCEs).

"Modeling Commercial Vehicle Travel"

William G. Allen, Jr., Paul Agnello

The Baltimore Metropolitan Council has developed a commercial vehicle trip forecasting model. This covers non-personal, non-truck travel, including delivery vehicles, taxis, government vehicles, service personnel, craftsmen, and tradesmen, and reflects eight percent of total travel. BMC's consultant synthesized commercial counts by link and used this data to create a predictive model.

SESSION 17, PART 1 - MODEL INTEGRATION
CYPRESS II
MODERATOR: BRIAN GARDNER

"Coordinating Trip Data Between Travel Demand and Operational Models"

David Schmitt, Paul Dorothy, Randy Kill

This paper analyzes the ease and validity of adjusting trip tables prior to assignment by an operational model. The paper also compares this process to a simplified process whereby a uniform seed matrix, consisting of 100 trips for all interchanges, is adjusted using a matrix estimation process.

SESSIONS

Page 48

"An Integrated Model for Planning and Traffic Engineering"

Wolfgang Scherr, Dick Adams, Thomas Bauer

This presentation/paper summarizes experience in building and using Lynnwood WA Base Transportation Model (BTM). The presentation will discuss street network, data management, transformation of demand model results into microscopic simulation input, and application of static and dynamic capacity constraint models.

"A High Fidelity Hybrid Traffic Simulator for Transportation Planners"

Qi Yang

This paper presents a model for simulating traffic flow on planning networks. Using a windowing technique, this model simulates different parts of a network at different levels of detail. This hybrid simulation allows for explicit trade-off between accuracy and computational efficiency. Las Vegas, NV, is used as a case study.

SESSION 18, PART 1 - HOV/PRICING
PREMIER III
MODERATOR: RICHARD WALKER

"Analysis of the Impacts of Pricing on the Tacoma Narrows Bridge"

Stacey Falzarano, Cissy Szeto

A project has been proposed to add capacity to the Tacoma Narrows Bridge. Tolls would be levied on the users of the new capacity to finance the project costs. This presentation discusses the use of origin-destination surveys, stated preference surveys, and sophisticated modeling techniques to determine the potential traffic and revenue on this currently free route.

SESSIONS

Page 49

"The Economic Benefits of a Roadway"

Sandra Wesch-Schulze, Elizabeth Morris

The current guidelines for environmental studies place a heavy emphasis on documenting social and environmental implications. The implications are almost always negative (e.g., displacements). However, almost no emphasis has been placed on quantifying the economic, employment, and tax revenue benefits. This presentation discusses the use of these principles in an EIS.

"Gowanus Expressway HOV Lane Evaluation"

Robert H. Brakman, Peter G. King

The Gowanus Expressway is an essential link for vehicular movement through western Brooklyn and the New York City area. In order to mitigate the impacts of an interchange construction project, a partial priority lane on the expressway was lengthened to provide continuous service. This presentation discusses the evolution of this facility.

WEDNESDAY, APRIL 9, 2003
3:30 P.M. - 5:00 P.M.

SESSION 16, PART 2 - STATE AND REGIONAL FREIGHT MODELS

PREMIER II

MODERATOR: ERIC KALIVODA

"Florida Intermodal Statewide Highway Freight Model"

Robert G. McCullough, Huiwei Shen

The Florida Intermodal Statewide Highway Freight Model is a commodity-based model, which focuses on long-distance commodity freight movements. The model is designed to provide more accurate forecasts of truck traffic volumes in response to changes in freight modal

SESSIONS

Page 50

characteristics. The model structure follows the basic framework of the four-step process.

“Modeling Of Freight Flow Assignment Through Intermodal Terminals”

Jinghua Xu

An analytical model is developed to assign freight across a highway and rail network through intermodal terminals, of which specific operating characteristics are used to establish the intermodal transfer impedances. A case study focusing on a regional freight assignment across southern New England area is conducted.

“A Critical Review and Case Study on Database Availability and Applicability for Statewide Intermodal Freight Modeling”

Haiyuan Wang, Yingjie Zhou, Yunlong Zhang, Royce Bowden

The paper focuses on describing the availability and applicability of databases for intermodal travel modeling based on a case study of the state of Mississippi using the extensive intermodal transportation networks in the state. The research shows that public domain databases can be efficiently used on statewide intermodal freight modeling.

SESSION 17, PART 2 - NETWORK SIMULATION
CYPRESS II

MODERATOR: BRIAN GARDNER

“Comparison Between a Predictive and a Reactive Dynamic User Equilibrium Assignment Algorithm”

Caroline Lemoine, Morgan Mangeas

This paper compares reactive and predictive assignment methods using a macroscopic traffic model. The paper

SESSIONS

Page 51

shows that predictive approach is closer to a Wardrop-like assignment and more appropriate for planning purposes. Even though no mathematical proof of convergence is given, the predictive algorithm properly converges.

“Validation of Operational Models”

David Schmitt, Paul Dorothy, Randy Kill

The presentation will provide a brief description of the Cleveland, OH, study area, the INTEGRATION model, and the validation criteria. This will be followed by a discussion of difficulties encountered during the validation process and lessons learned from validating and forecasting with mesoscopic models.

“CORSIM, PARAMICS, and VISSIM: What the Manuals Never Told You”

Fred Choa, Ronald T. Milam, David Stanek

This presentation will provide a comparison of the three major traffic simulation software programs (CORSIM, PARAMICS, and VISSIM) used in the evaluation of a major freeway interchange project.

SESSION 18, PART 2 - HOV/PRICING

PREMIER III

MODERATOR: RICHARD WALKER

“Evaluation of Toll Options Using Quick-Response Analysis Tools: A Case Study of the Capital Beltway”

Patrick DeCorla-Souza

Oftentimes, toll option analysis for a project must be completed within a short time frame. This presentation shows how existing quick-response analysis tools might be modified for use in evaluating toll options. It will be shown how transportation performance and other impacts associated with a toll option can be compared to more traditional alternatives.

SESSIONS

Page 52

"Planning for Value Lanes in Phoenix"

Mark Schlappi

The Arizona Department of Transportation and the Maricopa Association of Governments conducted a Value Lane Study for the regional freeway system. Decision makers desired information to assess the feasibility for the conversion of HOV lanes to HOT lanes, as well as the construction of new HOT lanes. This presentation discusses the evaluation methodology.

"Converting HOV Lanes to HOT Lanes in Denver"

Myron Swisher

The Colorado Department of Transportation has completed a feasibility study to convert existing HOV lanes on I-25 to HOT lanes. All agencies involved agree that there are no fatal flaws in the conversion and that the project should proceed to the NEPA documentation stage. This presentation will track the history of this project.

THURSDAY, APRIL 10, 2003

CLOSING SESSION, PART 1

8:30 A.M. - 10:15 A.M.

CYPRESS I & II

MODERATOR: ERIC KALIVODA

"Overview of the Mississippi River System"

U.S. Army Corps of Engineers

SESSIONS

Page 53

"Inner Harbor Navigation Canal Lock Replacement"

U.S. Army Corps of Engineers

"Invitation to the 10th TRB Conference on Transportation Planning Applications in Portland, Oregon - Spring 2005"

TRB Committee Member

CLOSING SESSION, PART 2

10:30 A.M. - 12:00 NOON

CYPRESS I & II

"Latin American Scanning Tour - Opportunities for Trade"

Dr. Kam K. Movassaghi, Secretary, LA DOTD

"Other Topics"

CLOSING SESSION, PART 3

1:30 P.M. - 4:00 P.M.

CYPRESS I & II

Louisiana Planning Council Business Meeting
(*All conference delegates are invited to attend*)

PDH DOCUMENTATION

PDH DOCUMENTATION

9th TRB Conference on the Application of
 Transportation Planning Methods
 Documentation of Professional Development
 Hours (PDHs)

Print Name _____

This form is to be used in documenting Professional Development Hours (PDHs) earned at the conference. To use this form, write in your name at the top of the form. After attending a particular session, initial the appropriate block on the form. At the conclusion of the conference, total the number of PDHs and record below and sign the attested by line. This form and program then becomes documentation of attendance.

DATE AND TIME	SESSION TITLE	INITIALS
Monday, April 7, 2003 8:30 a.m. - 10:00 a.m.	Session 1, Part 1 - Innovations in Travel Modeling (1.5 PDH)	
	Session 2, Part 1 - Multimodal Case Studies (1.5 PDH)	
	Session 3, Part 1 - Environmental Justice (1.5 PDH)	
Monday, April 7, 2003 10:30 a.m. - 12:00 noon	Session 1, Part 2 - Innovations in Travel Modeling (1.5 PDH)	
	Session 2, Part 2 - Multimodal Case Studies (1.5 PDH)	
	Session 3, Part 2 - Environmental Justice (1.5 PDH)	

PDH DOCUMENTATION

PDH DOCUMENTATION

9th TRB Conference on the Application of
 Transportation Planning Methods
 Documentation of Professional Development
 Hours (PDHs)

DATE AND TIME	SESSION TITLE	INITIALS
Monday, April 7, 2003 1:30 p.m. - 3:00 p.m.	Session 4, Part 1 - Data Collection and Surveys (1.5 PDH)	
	Session 5, Part 1 - Statewide Models (1.5 PDH)	
	Session 6, Part 1 - Safety/Access Management Planning (1.5 PDH)	
Monday, April 7, 2003 3:30 p.m. - 5:00 p.m.	Session 4, Part 2 - Data Collection and Surveys (1.5 PDH)	
	Session 5, Part 2 - Statewide Models (1.5 PDH)	
	Session 6, Part 2 - Corridor Studies (1.5 PDH)	

DATE AND TIME	SESSION TITLE	INITIALS
Tuesday, April 8, 2003 8:30 a.m. - 10:00 a.m.	Session 7, Part 1 - Multimodal Travel Forecasting (1.5 PDH)	
	Session 8, Part 1 - Smart Growth (1.5 PDH)	
	Session 9, Part 1 - Modeling Access Management (1.5 PDH)	
Tuesday, April 8, 2003 10:30 a.m. - 12:00 noon	Session 7, Part 2 - Multimodal Travel Forecasting (1.5 PDH)	
	Session 8, Part 2 - Smart Growth (1.5 PDH)	
	Session 9, Part 2 - Statewide Management Systems (1.5 PDH)	

PDH DOCUMENTATION

9th TRB Conference on the Application of Transportation Planning Methods
Documentation of Professional Development Hours (PDHs)

DATE AND TIME	SESSION TITLE	INITIALS
Tuesday, April 8, 2003 1:30 p.m. - 3:00 p.m.	Session 10, Part 1 - TRANSIMS (1.5 PDH)	
	Session 11, Part 1 - Multimodal Case Studies (1.5 PDH)	
	Session 12, Part 1 - Federal Guidelines (1.5 PDH)	
Tuesday, April 8, 2003 3:30 p.m. - 5:00 p.m. 7:00 p.m. - 9:00 p.m.	Session 10, Part 2 - Simulation Case Studies (1.5 PDH)	
	Session 11, Part 2 - Multimodal Case Studies (1.5 PDH)	
	Session 12, Part 2 - Project Assessment (1.5 PDH)	
	Census Session (2.0 PDH)	
DATE AND TIME	SESSION TITLE	INITIALS
Wednesday, April 9, 2003 8:30 a.m. - 10:00 a.m.	Session 13, Part 1 - Travel Model Design (1.5 PDH)	
	Session 14, Part 1 - State and Local Policy (1.5 PDH)	
	Session 15, Part 1 - Technical Applications in Data Collection (1.5)	
Wednesday, April 9, 2003 10:30 a.m. - 12:00 noon	Session 13, Part 2 - Travel Model Design (1.5 PDH)	
	Session 14, Part 2 - Urban Mobility (1.5 PDH)	
	Session 15, Part 2 - Technical Applications in Data Collection (1.5PDH)	

PDH DOCUMENTATION

9th TRB Conference on the Application of Transportation Planning Methods
Documentation of Professional Development Hours (PDHs)

DATE AND TIME	SESSION TITLE	INITIALS
Wednesday, April 9, 2003 1:30 p.m. - 3:00 p.m.	Session 16, Part 1 - State and Regional Freight Models (1.5 PDH)	
	Session 17, Part 1 - Model Integration (1.5 PDH)	
	Session 18, Part 1 - HOV/Pricing (1.5 PDH)	
Wednesday, April 9, 2003 3:30 p.m. - 5:00 p.m.	Session 16, Part 2 - State and Regional Freight Models (1.5 PDH)	
	Session 17, Part 2 - Network Simulation (1.5 PDH)	
	Session 18, Part 2 - HOV/Pricing (1.5 PDH)	
DATE AND TIME	SESSION TITLE	INITIALS
Thursday, April 10, 2003 8:30 a.m. - 10:15 a.m.	Closing Session, Part 1 (1.5 PDH)	
	10:30 a.m. - 12:00 noon	Closing Session, Part 2 (1.5 PDH)
1:30 p.m. - 4:00 p.m.	Closing Session, Part 3 - Louisiana Planning Council Business Meeting (____ PDH)	

Total PDHs earned through attendance at the 9th TRB Conference on the Application of Transportation Planning Methods

I hereby attest that I have attended the sessions documented above and that the cumulative PDHs totaled above are accurate.

Signature of Attendee