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OTREC NEWS

FALL 2008

OREGON TRANSPORTATION RESEARCH AND EDUCATION CONSORTIUM

DYNAMIC ACTIVITY-BASED TRAVEL FORECASTING SYSTEM

INSIDE THIS ISSUE:

EDITED BY MELISSA LEVENTHAL

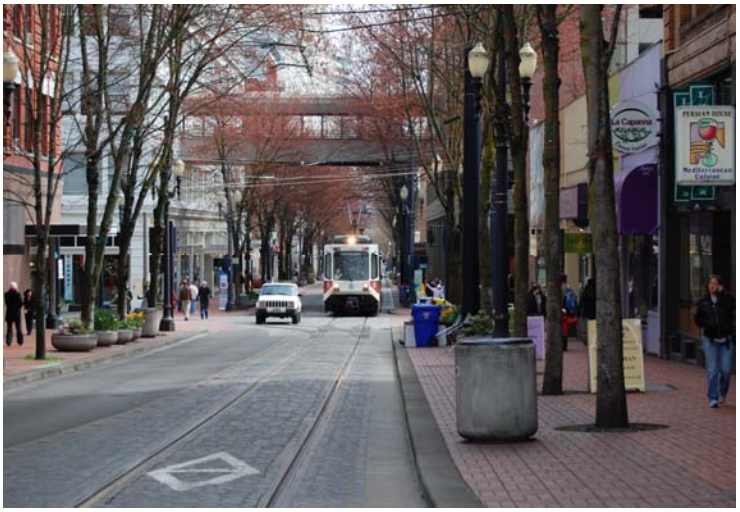
OTREC is a National University Transportation Center, and is a partnership between Portland State University, the University of Oregon, Oregon State University and the Oregon Institute of Technology

The Dynamic Activity Simulator for Households (DASH) is a cooperative project between Portland State University researchers (led by Professor John Gliebe) and the travel forecasting model group at Metro, the regional government for the Portland area. DASH represents a new way of forecasting regional travel patterns. It's based on the principle that travel is derived from individuals engaging in various activities to meet personal and household needs. This activity basis requires detailed modeling of individual decisions as well as interactions between individuals within a household, a huge departure from previously-used aggregate modeling methods. In addition, the DASH project distinguishes itself from other activity-based modeling research through its explicit representation of time. DASH represents time in relation to both time of day and cumulative activity durations as a factor in the choices that people make whether to engage in certain activities, how long, where, with whom, and using what travel mode. This design will permit Metro to integrate DASH with a dynamic network assignment program and schedule-based transit assignment.

It is felt that this approach is needed in order to improve upon some of the deficiencies in the current generation of trip-based, aggregate forecasting models. Explicit modeling of individual households will enable not only a better understanding of the travel market, but should also provide better tools with which to understand the opportunities and constraints faced by individuals and households in making their travel choices. Sensitivity to time of day is particularly important for addressing issues related to saturated transportation network conditions, greenhouse gas and other pollutant emissions, and for proper evaluation of congestion pricing and variable tolling proposals.

Professor Gliebe and graduate student KiHong Kim presented a paper entitled "Time-Dependent Utility in Activity-Travel Choice Behavior" at the annual meeting of the North American Regional Science Association in New York on November 22, 2008. Professor Gliebe also made a presentation entitled "Dynamic Choices in Coordinated Household Activity-Travel Systems" at the TRB Innovations in Travel Demand Modeling conference held in Portland in June 2008. Graduate students involved in the project have included: KiHong Kim (USP-PhD) and Michael Harmon (USP-PhD). To learn more, visit:

http://otrec.us/project/137



DIRECTOR'S CORNER– GUEST COLUMN BY ASSOCIATE DIRECTOR MARC SCHLOSSBERG, UNIVERSITY OF OREGON

As a National University Transportation Center, OTREC's explicit mission is to serve the transportation research and educational needs of the nation. The recent gasoline price spike during the last year showed millions of Americans, as well as policy makers at all levels, that we have some fundamental problems with basic mobility and that Americans are indeed willing and able to make changes in transportation behavior.

Theme: OTREC supports innovations in sustainable transportation through "advanced technology, integration of land use and transportation, and healthy communities. "

Here in Oregon, we have shown a way forward in sustainable city design by integrating transportation and land use decisions, designing cities for people as well as vehicles, and focusing on bicycle and pedestrian travel as co-equal forms of transportation. It is clear that the Oregon experiment, embodied in large cities like Portland and smaller ones like Eugene or Corvallis, are models for the nation as we re-orient our cities from the sprawling approach of the last sixty years to one that promotes sustainability, healthy communities, and transportation choices for all segments of the population.

Consistent with the policy experimentation in the state OTREC has spurred a unique and integrated set of research, teaching, and service activities that look at accessibility and transportation choice in the context of how cities are designed, especially here at the University of Oregon. We have researchers in planning, architecture, public policy, landscape architecture and community service who would not have considered themselves to be transportation experts. Yet, through OTREC's efforts, these researchers and instructors have brought their expertise in urban design, healthy communities, and active transportation into an integrated and complementary examination of what it would take to transform the existing pattern of city development into a sustainable city model. This interdisciplinary approach is energizing and brings to the transportation world fields of interest not normally at the table, but critical in addressing the fundamental aspects of transportation's purpose.

OTREC includes four partner universities throughout Oregon with a breadth of expertise across many disciplines. Colleagues across these institutions are also pursuing various areas of sustainable transportation research and teaching, and collectively OTREC is supporting a range of innovative work focused on the future of transportation and the connection between transportation, sustainability, and city form.

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EVALUATION OF THE OREGON DMV AT-RISK DRIVER PROGRAM

The Oregon Driver and Motor Vehicle Services (DMV) implemented a new medical reporting requirement in June 2003, mandating Oregon physicians and health care providers to report patients with certain severe and uncontrollable cognitive and functional impairments to the DMV.

Dr. James Strathman has conducted an evaluation on the impact of this mandate in a Oregon Department of Transportation (ODOT) and OTREC funded project. The first part of Dr. Strathman's research assesses the safety risk of persons whose licenses were suspended following receipt of a physician referral. The second part of the analysis involves structured interviews of program stakeholders, including program administration staff, members of the working group whose recommendations led to the 2001 revision of the Medically At-Risk program, primary care physicians, providers of driving assessment services, and other community contacts.

Dr. Strathman's research suggests that the effectiveness of the program would be improved by taking steps in the areas of information and outreach, driving assessment and rehabilitation services and integrating the mandatory and voluntary reporting databases. To learn more, visit:

http://otrec.us/project/91

FACULTY PROFILES—YIZHAO YANG AND IDA VAN SCHALKWYK

Dr. Ida van Schalkwyk is a Senior Research Assistant Professor at Oregon State University. She specializes in Transportation Engineering and has a particular interest in transportation safety, predominantly as it relates to the different functions of transportation management (planning, design, operations and maintenance), different road users (vulnerable road users, passenger vehicles, freight and motorcyclists), and enterprises (e.g. performance measurement, pavement engineering, ect.).

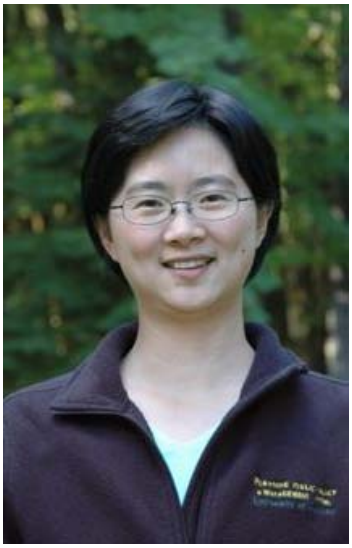
Dr. Schalkwyk completed the requirements for a Ph.D. in Civil Engineering at Arizona State University in January 2008. She received a Bachelor's Degree in Civil Engineering and Master's Degree in Transportation Engineering from the University of Pretoria in South Africa.

Dr. Schalkwyk is actively involved in Transportation Research Board (TRB) activities. She serves on four committees and two panels (one as chair). Besides her involvement in TRB, she is also a Board member of the Association of Transportation Safety Professionals (ATSIP). She serves on a variety of other committees and supports activities of the Institute of Transportation Engineers (ITE), Society of Women Engineers (SWE), and American Society of Civil Engineers (ASCE).

Dr. Schalkwyk grew up in South Africa where her family has lived for more than 500 years. Prior to leaving the country in 2001, she was part of the development team for the South African Road Safety Manual, acting as main author for five of the seven volumes. It is currently used as a best practice guideline for highway safety in South Africa.

Dr. Yizhao Yang is an Assistant Professor in the Department of Planning, Public Policy and Management at the University of Oregon. She has a background in Architecture (B. Arch, 1995, Tianjin University, China) and Urban Planning (MRP, 2001; Ph.D., 2007, Cornell University). Dr. Yang's research interests focus on the social and environmental aspects of physical planning, particularly issues related to good urban form supportive of more affordable, healthy and sustainable environments.

In addition to her recent OTREC funded school travel project, Dr. Yang has conducted research projects studying people's environmental perception, quality of life, and physical activity. Her research has been supported by the US Department of Housing and Urban Development, US Census Bureau, OTREC, and University of Oregon.



WELCOME MELISSA LEVENTHAL

Melissa Leventhal joined OTREC as the Office Coordinator in August, and we are happy to add her to our team! As OTREC's Office Coordinator, Melissa is assisting the Research Program Manager with the annual proposal peer review process and working with the web proposal and project management system. She is supporting the Fiscal Operations Coordinator with invoices, purchase orders, and personal and travel reimbursements. Melissa also edited OTREC's 2007-2008 Annual Report and the Fall 2008 Newsletter.

Before joining the OTREC staff, Melissa worked for Portland State University as the Office Coordinator for Facilities and Planning, Program Assistant for the Maseeh College of Engineering's Student Services Office, and Assistant to the Director at the Native American Student and Community Center. Melissa is originally from Cleveland, Ohio and has a B.A. in Psychology from Bard College at Simon's Rock in Great Barrington, Massachusetts. She is looking forward to working with everyone at OTREC and learning more about Transportation Research!

2008-2009 OTREC STUDENT OF THE YEAR—CHRISTO BREHM

Christo Brehm is currently pursuing a concurrent graduate degree in Community and Regional Planning and Landscape Architecture at the University of Oregon. He holds an undergraduate degree in Planning, Public Policy and Management and has spent many years working in the field of affordable housing. While a University of Oregon student, Christo has designed one of the nation's first assessment tools of the emerging Complete Streets concept. He has traveled across the country (MD, VA, and MN) leading community assessment workshops using this Complete Streets tool that works within a mobile GIS environment. Christo co-authored a paper for the 2009 TRB national conference and has presented his work at the national Pro Bike / Pro Walk conference. He has been asked by leaders in two Oregon state agencies to describe and share his work with smaller Oregon communities and is a founding member and director of a campus wide, interdisciplinary transportation and livability student group at the University of Oregon called LiveMove. During this time, Christo has worked with Dr. Marc Schlossberg and has been a truly exceptional student researcher and leader. Congratulations Christo!

CAMPUS STUDENTS OF THE YEAR JOE BROACH (PSU), ERIC LEAMING (OIT), AND THOMAS SCHUMACHER (OSU)

Joe Broach earned a M.A. in economics from the University of Montana, and went on to lecture in the Economics Department for a year and a half. Joe is currently pursuing a Ph.D. in Urban Studies at Portland State University (PSU).

Joe's primary passion is modeling individual transportation choices, but any empirical question gets him pretty excited.

Joe is beginning his third year at PSU and as a research assistant with the university's Center for Urban Studies (CUS). He has had the opportunity to contribute to several major research projects while with CUS, each related to emerging transportation data sources.

Joe also has strong interests in bicycling and transportation safety. Over the past year, he recognized a need for more comprehensive data on bicycle-motor vehicle incidents and developed the Bike Safety Monitoring And Reporting Tool (B-SMART). Hosted by local organization BikePortland.org, the web-based tool collects and disseminates user reported problem locations, close calls, and collisions.

Eric Leaming is currently in his final year of pursuing a B.S. in Civil Engineering at the Oregon Institute of Technology (OIT). In high school, Eric was fascinated with highway design and completed a year-long highway design project with the help of Oregon Department of Transportation (ODOT) engineers. The project included basic designs of three interchanges and started him down the road towards transportation engineering.

At OIT, Eric has become intrigued by traffic engineering and mass-transit systems modeling, completing a basic traffic study of Highway 97 through Klamath

Falls, Oregon. The study required modeling current traffic levels in the highway corridor, and then making changes to the system to minimize delay based on current volume/capacity ratios. For his college capstone project, Eric will be in charge of the transportation engineering of a walkable, transit-centered sustainable neighborhood in Klamath Falls.

Thomas Schumacher earned his B.S. degree in Switzerland in 2000, and subsequently worked for four years in the industry as a Structural Engineer. Always fascinated by bridges, and interested in studying

(Continued on page 5)

CAMPUS STUDENTS OF THE YEAR JOE BROACH (PSU), ERIC LEAMING (OIT), AND THOMAS SCHUMACHER (OSU)

(Continued from page 4)

abroad, he began a M.S. in Civil Engineering at Oregon State University in 2004. As a graduate research assistant Thomas works with Dr. Chris Higgins at OSU to investigate and develop non-destructive testing and monitoring methods to gain insight about the health of Oregon's vintage reinforced concrete bridges.

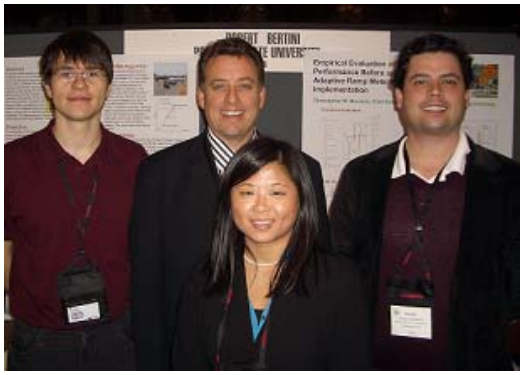
He completed his M.S. degree in November 2006 and then started working on an innovative project investigating wave forces on coastal highway bridges caused by hurricanes. This interdisciplinary large-scale experiment funded by OTREC and The Kiewit Center of Transportation has been receiving worldwide attention due to its importance and uniqueness and Thomas has presented research results in both the U.S. and in Germany. Thomas is planning to graduate from Oregon State University with a Ph.D. in Civil Engineering in June 2009.

CAMPUS VICE PRESIDENTS OF RESEARCH ROLE IN OTREC

The involvement of campus Vice Presidents is essential to setting the direction for OTREC and encouraging research without institutional borders. Research collaboration and coordination across campuses at the Vice President level provide leadership to OTREC faculty. The Vice Presidents of research at partner campuses (pictured left to right) are William Feyerherm (Portland State University), Richard Linton (University of Oregon), John Cassady (Oregon State University), and Brad Burda (Oregon Institute of Technology). They meet regularly to provide leadership, Vice Provost level oversight and promote consensus building.

OTREC STUDENTS AND FACULTY PARTICIPATE IN ITS WORLD CONGRESS

OTREC students and faculty were active participants in the 15th World Congress on Intelligent Transportation Systems, held in New York City, November 16-20, 2008. Lisa Diercksen, an M.S. student at PSU presented "A Second Look at the Effectiveness of the Myrtle Creek Dynamic Advanced Curve Warning System;" Jerzy Wieczorek, an M.S. student in Statistics at PSU presented "Using Archived ITS Data to Automatically Identify Freeway Bottlenecks in Portland, Oregon;" Rafael J. Fernandez-Moctezuma, a Ph.D. student in Computer Science at PSU presented "Developing an Imputation Strategy for an Archived Data User Service in Portland, Oregon;" Galen McGill of the Oregon Department of Transportation presented "Accuracy in Real-Time Estimation of Travel Time," co-authored with PSU professor Kristin Tufte. Professor Robert Bertini of PSU also presented: "Empirical Evaluation of Adaptive Ramp Metering Along Two Freeway Corridors in Portland, Oregon;" and "Toward Transport Payment Integration in Portland, Oregon." Professors David Porter and David Kim, of the OSU Department of Industrial and Manufacturing Engineering also attended the Congress. The World Congress is sponsored by ITS America, ERTICO-ITS Europe and ITS Japan.



From left: Jerzy Wieczorek, Dr. Robert Bertini, Lisa Diercksen and Rafael J. Fernandez-Moctezuma.

SAVE THE DATE: OTREC AND REGION X RECEPTION AT TRB

OTREC and partner university transportation centers (UTCs) in the Region X consortium will be hosting a reception at the 2009 Transportation Research Board (TRB) 88th Annual Meeting in Washington, D.C. Meet our state department of transportation partners from Alaska, Idaho, Oregon and Washington. Meet the Students of the Year from the Alaska University Transportation Center, National Institute of Advanced Transportation Technology, OTREC, and Transportation Northwest. Find out more about our partnerships and activities by browsing our posters, newsletters, annual and research reports which will be available at the reception.

Date: Sunday, January 11, 2009
Time: 6:00 pm - 7:30 pm
Location: Marriott Wardham Park Hotel, Maryland A&B

OTREC REPRESENTATION AT TRB

Many of OTREC's affiliated faculty will be presenting at the 2009 Transportation Research Board (TRB) 88th Annual Meeting. We've put together a guide to help navigate the many sessions and presentations that may be of interest to our colleagues.

Graduate Student Research Summaries and Hot Topics in Geometric Design
Optimal Location for Spot Speed Data Collection for Safety Assessment on Curves
Raul Avelar, Oregon State University
Cross-sectional Safety Prediction Models of Fatal Crashes on Two-Lane Rural Highways in the Southeastern United States
Hong Zhu, Oregon State University

Conduct of Transportation Environmental Research: What You Should Know About Getting It Done--Will Detailing the Process Yield Future Progress? H - Jefferson West Sunday, 1:30 PM–5:00 PM
From Research Project Procurement to Published Research Project
Hau T. Hagedorn, Oregon Transportation Research and Education Consortium

Detecting Traffic H - International Center Monday, 9:30 AM–12:00 PM
Toward Improved and Transparent Imputation Techniques for Online Traffic Data Streams and Archiving Applications
Rafael J. Fernández-Moctezuma, Robert Lawrence Bertini, David Maier, and Kristin A. Tufte, Portland State University

Geospatial Advances in Transportation H - International Center Monday, 9:30 AM–12:00 PM
Participatory GIS and Active Transportation: Collecting Data and Creating Change
Marc A. Schlossberg and Christo Brehm, University of Oregon

New Concepts in Urban Data H - International Center Monday, 9:30 AM–12:00 PM
Adding Green Performance Metrics to a Transportation Data Archive
Alexander Y. Bigazzi and Robert Lawrence Bertini, Portland State University

Managing System Performance: Developing Tools to Maximize Efficiency M - Thurgood Marshall East Monday, 10:15 AM–12:00 PM
Prototype for Data Fusion Using Stationary and Mobile Data Sources for Improved Arterial Performance Measurement
Mathew Berkow, Alta Planning + Design
Christopher M. Monsere, Robert Lawrence Bertini, and Michael Wolfe, Portland State University
Peter J .V. Koonce, Kittelson & Associates, Inc., Portland State University

Bicycle Research Subcommittee H - Grant Monday, 1:30 PM–3:15 PM
Jennifer Dill, Portland State University, presiding

Lessons Learned Through Forensic Analysis of Hot-Mix Asphalt Pavements M - Salon 1 Monday, 1:30 PM–3:15 PM
Forensic Investigation of Pavement Failures due to Moisture on Interstate Highways in Oregon
Todd Scholz, Oregon State University

Taxing Our Way to a Greener Future? H - International East Monday, 1:30 PM–3:15 PM
Green Taxes and Fees: A Politically Acceptable Way to Increase Transportation Revenue?
Asha Weinstein Agrawal and Hilary Nixon, San Jose State University
Jennifer Dill, Portland State University

Freight Systems Research S - Blue Room Foyer Monday, 2:30 PM–5:00 PM
Planning Approximations to Average Length of Vehicle Routing Problems with Time Window Constraints
Route Improvement Algorithm for Vehicle Routing Problem with Time-Dependent Travel Times
Miguel Figliozzi, Portland State University

Communications about Bicycling Subcommittee H - Grant Monday, 3:45 PM–5:30 PM
Jennifer Dill, Portland State University, presiding

Practical Bus Rapid Transit Planning H - Jefferson West Monday, 3:45 PM–5:30 PM
Assessment of Optimal Bus Stop Spacing Model Using High-Resolution Archived Stop-Level Data
Huan Li and Robert Lawrence Bertini, Portland State University

Dynamics, Sensitivity, and Variability of Travel Demand H - International Center Monday, 6:30 PM–9:30 PM
John P. Gliebe, Portland State University, presiding

Freight and Transit Network Models H - Thoroughbred Monday, 7:30 PM–9:30 PM
Planning Approximations to Average Length of Vehicle Routing Problems with Time Window Constraints
Route Improvement Algorithm for Vehicle Routing Problem with Time-Dependent Travel Times
Miguel Figliozzi, Portland State University

U.S. Transportation System Scenarios Out to 2050 in a World Addressing Climate Change M - Thurgood Marshall North Tuesday, 8:00 AM–9:45 AM
Discussant
Gail Achterman, Oregon State University

Dwight David Eisenhower Transportation Fellowship Program Research Showcase, Part 2 (Part 1, Session 320; Part 3, Session 550) H - Lincoln West Tuesday, 8:00 AM–12:00 PM
Bottleneck Identification and Optimal Detector Placement for Travel Time Application
Sirisha Kothuri, Portland State University

Pedestrian Safety M - Salon 2 Tuesday, 9:30 AM–12:00 PM
Observational Evaluation of Safety Effectiveness of Marked and Unmarked Crosswalks at Unsignalized Intersections
Delia Chi, HNTB Corporation
Jennifer Dill and Christopher M. Monsere, Portland State University

Bicycle Traffic Engineering and Operations Subcommittee H - Edison Tuesday, 10:15 AM–12:00 PM
Jennifer Dill, Portland State University, presiding

Contemporary Geometric Design Issues: Intersections, Driveways, and Cable Barriers S - Ambassador Tuesday, 10:15 AM–12:00 PM
Balancing Urban Driveway Design Demands
Karen K. Dixon, Ida Van Schalkwyk, and Robert Davis Layton, Oregon State University

HSM Research Subcommittee, ANB25T(6) M - Embassy Tuesday, 1:30 PM–3:15 PM
Karen K. Dixon, Oregon State University, presiding

Assessing Mileage-Based User Fees H - International East Tuesday, 1:30 PM–3:15 PM
Transit's Effect on Mileage Responses to Oregon's Experiment in Road Pricing
Anthony M. Rufolo and Thomas J. Kimpel, Portland State University

Freeway Operations M - Salon 2 Tuesday, 2:30 PM–5:00 PM
Empirical Evaluation of Freeway Corridor Performance Before and After Systemwide Adaptive Ramp Metering System Implementation
Christopher M. Monsere, Oren Eshel, and Robert Lawrence Bertini, Portland State University
Integrating an Automated Bottleneck Detection Tool into an Online Freeway Data Archive
Jerzy Wieczorek, Huan Li, Rafael J. Fernández-Moctezuma, and Robert Lawrence Bertini, Portland State University

Optimum Performance for Transit: Explorations in Transit Economics and Transit Management H - International Center Tuesday, 2:30 PM–5:00 PM
Beyond Generating Transit Performance Measures: Visualizations and Statistical Analysis Using Historical Data
Mathew Berkow, Alta Planning + Design
Ahmed M. El-Geneidy, McGill University, Canada
Robert Lawrence Bertini, Portland State University
David T. Crout, Tri-County Metropolitan Transportation District of Oregon

Oscillations in Congested Traffic: Observations and Estimation M - Thurgood Marshall North Tuesday, 7:30 PM–9:30 PM
Robert Lawrence Bertini, Portland State University, presiding

Road Safety Evaluations, Part 2 (Part 1, Session 245) M - Salon 2 Tuesday, 7:30 PM–9:30 PM
Investigating Differences in Safety Performance Functions Estimated for Total Crash Count and for Crash Count by Collision Type
Thomas Jonsson, Lund University, Sweden
Craig Lyon, Persaud and Lyon Inc.
John N. Ivan, University of Connecticut
Simon Washington, Arizona State University
Ida Van Schalkwyk, Oregon State University
Dominique Lord, Texas A&M University

Analysis of Roadside Features S - Ambassador Wednesday, 8:00 AM–9:45 AM
Urban Roadside Safety: Cluster Crash Evaluation
Karen K. Dixon, Oregon State University
Michael Tyson Liebler, Transpo Group
Michael Patrick Hunter, Georgia Institute of Technology

Improving the Delivery of Transit: Explorations for Transit Service and Transit Capital Projects H - Jefferson West Wednesday, 8:00 AM–9:45 AM
Evaluation of Short-Duration Unscheduled Absences Among Transit Operators: TriMet Case Study
James Strathman and Joseph Broach, Portland State University
Steve Callas, Tri-County Metropolitan Transportation District of Oregon

Implementation of the Highway Safety Manual M - Delaware A Wednesday, 10:15 AM–12:00 PM
Training Plan
Karen K. Dixon, Oregon State University

Factors Affecting Bicycle Use and Mode Choice H - Lincoln East Wednesday, 10:15 AM–12:00 PM
Jennifer Dill, Portland State University, presiding

Travel Time Characteristics in Congested Networks M - Delaware A Wednesday, 2:30 PM–4:00 PM
Empirical Study of Transient Freeway Traffic States Along Kinematic Waves
Soyoung Ahn and Manasa Rayabhari, Arizona State University
Qing Ou, Delft University of Technology, Netherlands
Robert Lawrence Bertini, Portland State University

Freight Analysis Case Studies S - Congressional Wednesday, 2:30 PM–4:00 PM
Survey of Chinese Importers and Exporters: China's Logistics Industry Developments and Impacts of Transportation System Performance on Supply Chain Costs and Operations
Zeyan Zhang, University of Sydney, Australia
Miguel Figliozzi, Portland State University

Bicycle Transportation Committee H - Lincoln South Wednesday, 2:30 PM–6:00 PM
Jennifer Dill, Portland State University, presiding

Collecting, Analyzing, and Displaying Freight Data S - Ambassador Wednesday, 4:30 PM–6:00 PM
Prototype for Freight Data Integration and Visualization Using Online Mapping Software: Issues, Applications, and Implications for Data Collection Procedures
Miguel Figliozzi and Kristin A. Tufte, Portland State University

ADVISORY BOARD PROFILE: JOHN ISBELL

John has directed the activities of the Corporate Delivery Logistics group that is responsible for the strategic direction and global management of Nike's logistics service providers responsible for origin consolidation, ocean freight, and air freight of both in-line and product samples, as well as security and claims management since July 1998. Today, Nike ships approximately 100,000 twenty-foot equivalent units (TEU) annually to over 160 countries.

A 30-year Nike veteran, John has a variety of logistical and other operational experience as Director of Asia-Pacific Logistics, Director of U.S. Distribution and Customer Service, and General Manager of Nike's Oregon distribution facility. John graduated with a Finance degree from the University of Colorado, Boulder, in 1969 and earned an M.B.A. from Portland State University in 1979.

John belongs to several industry work groups. He is the Vice President and board member of the Waterfront Coalition and was co-chairman of the Waterfront's 2005 National Marine Container Transportation System - A Call To Action white paper. He is also Treasurer and Board member of the Coalition for Responsible Transportation and a member of the Oversight Committee for the National Cooperative Freight Research Program.

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