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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

## Transportation Summit Helps Shape OTREC

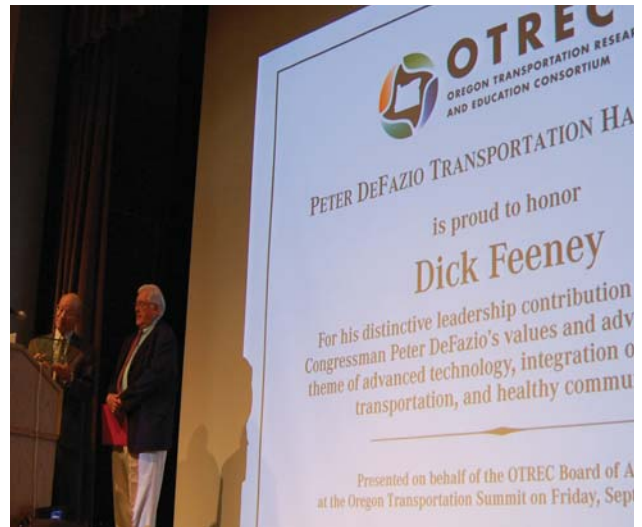
The inaugural Oregon Transportation Summit was held at Portland State University on Friday, September 11th. Approximately 250 participated in the day-long event, which featured a faculty retreat, policy briefings, eleven workshops, two congressional visits and a keynote address by best-selling author, Tom Vanderbilt.

The event was made possible by OTREC's partnership with the Women's Transportation Seminar, American Planning Association, and Institute of Transportation Engineers. Congressman Earl Blumenauer and OTREC's new director, Dr. Jennifer Dill, provided welcoming remarks.

For the 200 practitioners in attendance, the Summit began with plenary sessions that examined transportation strategies to reduce greenhouse gas emissions and recent research on tolling policy.

At the same time, nearly fifty faculty from OTREC's four partner universities held a retreat to identify opportunities to collaborate across campuses and disciplines. They also worked with OTREC's program staff to identify ways to enhance the value of the UTC in their research and educational endeavors.

At midday, the luncheon included remarks by Portland State University President Wim Weiwel, Portland Mayor Sam Adams, and Congressman Peter DeFazio,



Congressman Peter DeFazio and Hall of Fame inductee Dick Feeney

who presented OTREC's inaugural Transportation Hall of Fame award to Dick Feeney, who served as TriMet's director of government relations for 25 years. The luncheon also featured a keynote presentation by Tom Vanderbilt, author of *Traffic: Why We Drive the Way We Do (and What It Says about Us)*.

In the afternoon, workshops examined eleven different subjects, including active living, rural applications of intelligent transportation systems, safety, and electric vehicles. At the most heavily attended session, USDOT Assistant Undersecretary for Policy Beth Osborne described the new federal Livability Partnership initiative. The workshops provided the defining feature of the Summit: the opportunity for academic and practicing transportation professionals to collaborate.



### OTREC Director Appointed to USDOT Leadership Position

Dr. Robert Bertini has been appointed to the post of Deputy Administrator for the Research and Innovative Technology Administration (RITA). He has left an indelible mark in Oregon by creating the Intelligent Transportation Systems Lab and launching the transportation seminar series at Portland State University. The ITS Lab currently supports 30 students and over \$4.5 million of transportation research. He was paramount in establishing OTREC; his tireless work, vision, leadership, and ability to inspire collaboration will surely be missed!

# Director's Corner

In August, the news that Professor Robert Bertini was being appointed Deputy Administrator for USDOT's Research and Innovative Technology Administration (RITA) came as a surprise for many. It is an honor that recognizes his work as a scholar and leader in the transportation community. OTREC got off to a great start under Rob's leadership, with strong partnerships and staff, a great portfolio of projects, and a growing reputation as a national model. Fortunately, because Rob had previously planned to take a nine-month sabbatical, I was already preparing to serve as OTREC's acting director. Now that I am no longer "acting," I am even more excited about the opportunity.

Some of you may wonder what I will be doing as OTREC director. I think to understand that, you need to know a little more about how I got here, including my 20 years of experience in transportation. After graduating with a masters degree in planning, with a focus on transportation and environmental planning, I worked for about a decade as a planner in California for public agencies and a non-profit organization. My work centered around how to reduce air pollution from mobile sources, often through demand management, land use planning, and infrastructure investment. However, I was frustrated that when we proposed policies and plans to our boards, members or partner agencies, we often lacked evidence that our proposals would yield quantifiable and cost-effective results.

That frustration spurred me to return to school for a PhD, which enabled me to conduct that research, and to begin teaching future planners – a profession that I love. While at UC Berkeley, I benefited directly from the university transportation center on that campus (UCTC), through fellowships, a dissertation research grant, and student conferences. And, because of

the interdisciplinary focus of the center, I met, worked with, and learned from many civil engineering students and faculty, including Rob.

I have now been at PSU since 2001 as a faculty member in the Toulon School of Urban Studies and Planning. I teach courses in transportation policy and quantitative methods, along with advising graduate students in transportation planning. The focus of my research is still based on my original motivation: to provide research that helps inform public and private decision-making to improve our environment, livability, and health.



One side of my work focuses on individual decisions (e.g. whether to drive or bicycle, where to live, etc.) and how they are influenced by the physical environment and public policy. I also examine how and why government agencies make decisions to implement innovative policies (e.g. mixed use zoning, parking limits, etc.) that would influence individual decisions. Finally, I've done some work on the public

reaction to different options for financing transportation. You can find out more about me and my research on my website: [web.pdx.edu/~jdill](http://web.pdx.edu/~jdill).

Now that you know a little more about me, let me describe what I'm thinking about for OTREC. First, I need to spend some time getting to know OTREC, its partners, principal investigators, and projects. I'm going to be working with our Board of Advisors and Executive Committee to develop an agenda for this next phase of OTREC. One of my top priorities will be to disseminate the results of OTREC-sponsored research to a wide audience, including practitioners and policy makers. That will require some new approaches, beyond the informative final reports we produce for each project.

Another priority will be to see how OTREC can be more strategic in its program of research, education, and technology transfer to support and benefit from new federal transportation priorities, including livability and climate change. As a National UTC, this is an appropriate role for us that is consistent with our themes and work to date. The importance of partners cannot be understated, and I am looking forward to strengthening our existing partnerships and growing some new ones. This is particularly important as Congress considers reauthorization of SAFETEA-LU.

There will be more to share over the next few months. I'm looking forward to hearing your ideas on OTREC's future. Please feel free to email me or bend my ear when I next see you in person.

Jennifer Dill, PhD.  
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Associate Professor, PSU  
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On June 15th, OTREC's Executive Committee selected 23 projects from a pool of 47 proposals. OTREC's portfolio now includes 82 faculty partners across 19 disciplines, 63 projects with multiple principal investigators, and 27 multi-campus projects. A sample of projects funded in 2009-2010 includes:

**2010-345:** Development of a Model to Predict and Mitigate Environmental and Public Health Impacts of Traffic Flows and Traffic Management Policies in Urban Transportation Microenvironments (Linda George, Portland State University)

**2010-340:** Regional transportation and land use decision making: a multistate analysis (Rich Margerum, University of Oregon)

**2010-305:** Green and Economic Fleet Replacement Modeling (David Kim, Oregon State University)

Meanwhile, seven new final reports have been submitted, peer-reviewed, and published since the last issue of this newsletter:

At Portland State, Dr. Miguel Figliozzi completed his project on "Practical Approximations to Quantify the Impact of Time Windows and Delivery Sizes on VMT Multi-Stop Tours" (RR-09-07) as well as development of his Distribution Logistics Course (ED-09-01). Another education project, "Bicycle & Pedestrian Curriculum Expansion" (ED-09-02) was completed by Dr. Lynn Weigand. Also at Portland State, Dr. James Strathman completed "Evaluation of Short-Duration, Unscheduled Absences Among Transit Operators: TriMet Case Study" (RR-09-05) and Dr. Christopher Monsere completed "Developing Corridor-Level Travel Time Estimates and Other Freight Performance Measures from Archived ITS Data" (RR-09-04).

At the University of Oregon, OTREC's Associate Director, Dr. Marc Schlossberg, completed his technology transfer effort, "Transferring Community-Based, Active Transportation GIS Assessment

Tools Nationwide" (TT-09-02) while Dr. Jessica Greene completed her project on "The Built Environment, Neighborhood Safety, and Physical Activity among Low Income Children" (RR-09-06). Robert Parker finalized "Expanding Service Learning Models in Transportation" (ED-09-03) and Dr. Yizhao Yang completed her project on "Understanding School Travel: How location choice and the built environment affect trips to school" (RR-09-09).

And at Oregon State University, Dr. Chris Higgins completed his project on the "Environmental Durability of Reinforced Concrete Deck Girders Strengthened for Shear with Surface Bonded Carbon Fiber-Reinforced Polymer" (RR-09-03). A Final Report on the "Co-Evolution of Transportation and Land Use" (RR-09-08) was submitted by Dr. Lei Zhang who has moved from OSU to the University of Maryland.

Beyond Oregon, OTREC partnered with the Alaska University Transportation Center (AUTC) to submit a successful proposal to the Region X Consortium to conduct a "Climate Change Impact Assessment for Surface Transportation in the Pacific Northwest and Alaska." John MacArthur, OTREC's Sustainable Transportation Program Manager (see sidebar on page 6), is serving as Principal Investigator on a team that includes the Oregon Climate Change Institute's Director, Philip Mote as well as Doctors Ming Lee (University of Alaska Fairbanks), Jason Ideker (Oregon State), and Miguel Figliozzi (Portland State).

*Full reports at [otrec.us/research.php](http://otrec.us/research.php)*

## OTREC by the Numbers

*Proposals received: 237*

*Peer reviews invited: 1044*

*Peer reviews received: 720*

*Research projects funded: 80 (\$5.7M)*

*Education projects funded: 16 (\$0.5M)*

*Tech Transfer projects funded: 13 (\$0.72M)*

## Get to know: Ihab Elzeyadi, UO



Dr. Elzeyadi joined the faculty of UO's Department of Architecture in 2001 following years in private practice. He consid-

ers himself an "architectural scientist" and jokes that his son calls him "an architect with a lab coat." Following undergraduate studies in Egypt, he earned his masters degree from Penn State and his PhD from the University of Wisconsin-Milwaukee.

### What is your current position and what are some highlights?

I have been an Associate Professor of Architecture with UO for nine years and my focus is on green buildings. In terms of teaching, I think it's exciting when a student asks a question that I can't answer – it's a scary moment but some of those questions are so interesting because they identify a gap in our knowledge. That kind of intellectual challenge might lead to the next project or opportunity.

### How and when did transportation become a focus for you?

A few years ago I was involved in "greening" an existing school. Some people ridicule earning LEED credits through things like showers and bike racks but, in this case, the benefits of improving non-auto access to a suburban school could represent the big savior. I think the way we design our buildings and environments can be an important part of creating healthier communities.

*Dr. Elzeyadi is the principal investigator of OTREC Research Project 2010-373: "Green Schools in Grey Zones."*

## Portland State University



*OTREC Director Jennifer Dill of PSU's Nohad A. Toulon School of Urban Studies and Planning*

In August, Professor Robert Bertini took a leave of absence when he was appointed Deputy Director of USDOT's Research and Innovative Technology Administration (RITA) – please read my column on page 2 for more about the implications for OTREC.

Bertini's departure coincided with the arrival of Ashely Haire, Ph.D., who joined the Department of Civil and Environmental Engineering as a Senior Research Associate. Dr. Haire completed her doctoral work at the University of Texas at Austin in 2009, focusing on transit and traffic operations. Her primary research interests include sustainable transportation systems and public transportation operations.

PSU is looking forward to the arrival in January 2010 of Dr. Kelly Clifton, who will be joining the faculty of Civil and Environmental Engineering with a joint appointment in the Center for Sustainable Processes and Practices. Prof. Clifton is currently an Associate Professor of Urban Studies and Planning at the University of Maryland - College Park and research faculty at the National Center for Smart Growth Research and Education. Dr. Clifton's research focuses on travel behavior, land use and transportation, physical activity and health, and transportation and energy.

The Initiative for Bicycle and Pedestrian Innovation in the Center for Transportation Studies continued its work on Safe Routes to School. IBPI conducted the evaluation of the City of Portland's Safer Routes to School program, including parent surveys at 25 schools. IBPI's director, Dr. Lynn Weigand, worked with the Bicycle Transportation Alliance to host the second national Safe Routes to School conference in August that was attended by more than 500 delegates.

## University of Oregon



*Professor Marc Schlossberg of UO's Public Policy, Planning and Management Program*

Prof. Nico Larco published "Untapped Density: Site Design and the Proliferation of Suburban Multifamily Housing" in the July 2009 issue of the Journal of Urbanism. His work was also featured in the American Planning Association's Housing and Community Development Newsletter. Prof. Yizhao Yang co-authored a chapter, "Where to Live and How to Get to School: Connecting Residential Location Choice and School Travel Mode Choice," in the forthcoming School Siting and Healthy Communities: Why Where We Invest in School Facilities Matters (Michigan State University Press).

UO's designBridge program has participated in a variety of exciting events, including the National Safe Routes to School Conference in Portland in August and the Safe Routes to School Fall Kickoff in Eugene in September with Congressman Peter DeFazio. UO's Community Planning Workshop has also been busy with their partnership with the Lane Transit District. Students have been involved in a stakeholder evaluation of the EmX system.

Prof. Marc Schlossberg began his year as a Fulbright Scholar in the UK. One of only ten American scholars selected for this award each year, Dr. Schlossberg is spending the year carrying out work related to UO's Sustainable Cities Initiative in England.

Prof. Rich Margerum is collaborating with PSU's Susan Brody on the second year of a study examining approaches and mechanisms for regional coordination of transportation and land use planning. The first year was supported by the Oregon Department of Transportation and focused on the relationship between Area Commissions on Transportation and Metropolitan Planning Organizations.



## Oregon State University



## Oregon Institute of Technology



*Professor Chris Higgins of OSU's School of Civil and Construction Engineering*

David Hurwitz, Ph.D. has joined the Civil and Construction Engineering faculty of OSU after earning his doctorate in Civil Engineering from the University of Massachusetts Amherst. Dr. Hurwitz's interests include transportation operations, safety and intelligent transportation systems. He places a particular emphasis on the consideration of transportation system user behavior and human factors in the design process. His teaching assignments include traffic operations, highway design, transportation safety and traffic signal design.

Another area of activity is related to Professor Karen Dixon's work as a member of the Steering Committee for the National Dialog about Context Sensitive Solutions (CSS). The first dialog was held in Austin, TX in October. OTREC will host the next dialog at Portland State University on December 7th. See <http://cssnationaldialog.org> for more information. The Steering Committee received more than 90 CSS "best practices" through a solicitation this summer.

CCE Faculty members Ida van Schalkwyk, Karen Dixon and Bob Layton are recipients of TRB's K.B. Woods Award - given each year for the best paper in the area of design and construction - for "Balancing Urban Driveway Design Demands Based on Stopping Sight Distance."

### Keep up with OTREC!

RSS feed at [otrec.us/news.php](http://otrec.us/news.php)

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*Professor Roger Lindgren of OIT's Department of Civil Engineering*

Oregon Institute of Technology and Crater Lake National Park's Science and Learning Center offered a summer camp to expose middle and high school girls to transportation science. Fourteen young women ranging in age from 12 to 16 participated in a four day summer camp that included a two day excursion to Crater Lake National Park. The camp was funded by an Oregon Transportation Research and Education Consortium (OTREC) grant and led by Dr. Andrew Ray of OIT's Department of Natural Sciences and Dr. Roger Lindgren from the Department of Civil Engineering.

Student campers participated in a number of transportation-related activities including the preparation of edible asphalt and participation in a popsicle stick bridge building competition. The winning bridge, comprised of only 40 sticks, held a total of 69 lbs!

Participants also met with a number of women who work with the National Park Service on emerging topics in transportation science: improving accessibility for all visitors, inventorying carbon emissions, and designing for historic preservation and sustainability of parking facilities. The girls were led by a group of OIT civil engineering students including lead teaching assistant Molly Nause-McCord.

Back on campus, a new MSCE program with focus areas in structural and transportation engineering was approved in June 2009. In the first year there will be graduate level transportation classes in advanced pavement engineering and transportation & land development.

# Education and Technology Transfer

## Student News



OSU students took a bike tour of Portland in April 2009 to see innovative bike designs around the city

**Rolando Melgoza (MSCE '10) of PSU** writes that several members of STEP have won awards lately. Josh Crain and alumna Lisa Diercksen won ITE's undergraduate and graduate student scholarships, respectively, while the group earned the "best website" award at the ITE Region 6 meeting in Denver this summer. **Shaun Bready (BSCE '10) of OIT** reports that several students had internships this summer with ODOT. While Shaun worked as a project inspector for the reconstruction of the McCullough Bridge (North Bend), Melissa Bronkhorst (BSCE '10) worked in the pavement and aggregate labs in Salem. **UO's Price Armstrong (MPA '10)** says that LiveMove has twenty members this year, including many new faces. This summer, Christo Brehm participated in a Landscape Architecture program in Kyoto, Japan while Anya Dobrowolski and Amy Annino bicycled from Eugene to Missoula, Montana to attend the Partnership for National Trails System Conference. Daniel Ronan attended the Oregon Transportation Summit (see page 1) and Price interned in the Performance Management Program at ODOT. LiveMove is also looking forward to co-hosting Powershift West, a student conference that focuses on climate change, on UO's campus

in early November. **Kyle Taniguchi (BSCE '10) of OSU** reports that the Student Chapter of ITE there has about 30 members this year. Some notable summer internship experiences for OSU transportation students this year were with Kiewit Pacific in Canada and with the U.S. Department of Transportation in Washington, DC. In terms of field trips, the group had a bike tour of Portland in the late Spring and is looking forward this fall to visiting ODOT's Traffic Management Operations Center in Portland and TriMet's Ruby Junction Facility in Gresham. Additionally, seven students were selected to present their research at the **2009 ACTS Oregon Transportation Safety Conference** in Hood River on October 29th: Raul Avelar, Neil Kopper and Jon Mueller represented OSU while Todd Johnson and Kristie Gladhill appeared for PSU and Andrea Rose and Chelsea McNeil made the trip from OIT. Neil Kopper (MSCE '10) was selected by a panel of ACTS Oregon board members as best student presentation and will receive a \$400 award from OTREC. The **20th Annual ITE Traffic Bowl** will be held on November 19th, pitting the northwest's transportation students against each other in a jeopardy-style tournament.

## New Staff Profile: John MacArthur



John joined the OTREC team in January to occupy the newly-created position of Sustainable Transportation Program Manager. The

position was made possible by an award from the Miller Foundation, which made a \$25 million challenge grant to Portland State University in 2008.

John's role will be to develop, direct and manage the strategic direction for OTREC's climate and sustainable transportation initiatives. Already, he has organized a successful multi-campus proposal to the Region X Consortium through which OTREC faculty will study the impacts of climate change on transportation infrastructure.

Almost immediately upon his arrival at OTREC, John became actively involved in the electric vehicle movement underway in Oregon, working with local agencies, universities, foundations and corporations to make Oregon a leader in electric vehicles.

Before joining the OTREC staff, John was the Context Sensitive and Sustainable Solutions Program Manager for the OTIA III State Bridge Delivery Program. John has worked for 15 years in the environmental and sustainability field. He earned a B.S. in Civil Engineering from Lehigh University and his M.S. in Environmental Health Sciences from the University of Michigan School of Public Health.

For more information about these groups and their activities:

[http://otrec.us/student\\_groups.php](http://otrec.us/student_groups.php)



## Conference Highlights

In June, **OTREC and the National Institute for Advance Transportation Technology hosted a Transportation Education Conference**, which was attended by approximately 60 professors, most of whom teach introductory courses in transportation engineering. The two-day event helped build knowledge and skills and enabled ongoing collaboration among these educators.

OTREC has also been pleased to support a number of technology transfer events in recent months, including the **American Planning Association's Oregon Chapter Annual Meeting** in June and the **2009 National Rural Intelligent Transportation Systems (NRITS) Conference**, hosted by the Intelligent Transportation Society of Oregon in Seaside in August. A number of notable national conferences have been held in Portland lately,

including the National Safe Routes to School conference (August), TRB's Transportation Asset Management meeting (October), and the Congress for the New Urbanism's Transportation Summit (November). Excitement is already growing about hosting Railvolution in Portland in November 2010.

The Transportation Research Board's 89th Annual Meeting will be held January 10-14. As usual, OTREC faculty and students will be actively involved throughout the conference. Keep your eye out for a special "OTREC at TRB" publication with details about the Region X Reception and presentations by OTREC faculty and students.



*Teachers became students again at the OTREC/NIATT Transportation Education Conference at Portland State University in June 2009.*

## Upcoming Opportunities & Links



PSU's **Center for Transportation Studies** hosts a seminar every Friday.

Watch seminars live over the web or later through the archive. For more information, including upcoming topics, visit [www.cts.pdx.edu/seminars/](http://www.cts.pdx.edu/seminars/)



The **Kiewit Center for Infrastructure and Transportation** offers traffic safety workshops

For upcoming dates and topics, please visit <http://kiewit.oregonstate.edu/workshops.html>

### Want more?

This newsletter is online with additional links available. [www.otrec.us/newsletter.php](http://www.otrec.us/newsletter.php)



The 2010 Northwest Transportation Conference will be held in Corvallis February 9-11. The theme this year is "The Future of Transportation is Here" in recognition of the fact that events of the last two years have brought about a major shift nationally and within Oregon with regard to energy, climate change and transportation technology.

<http://kiewit.oregonstate.edu/nwtcc/> for agenda and registration information



OTREC is pleased to host the second in a series of "national dialogs" on context sensitive solutions at Portland State University on Monday, December 7th. The dialogs are led by the Federal Highway Administration and the Center for Transportation and the Environment at North Carolina State University. The goals include promoting CSS principles and best practices as well as discovering new opportunities for partnerships. The workshop is free but an online registration form must be submitted. Visit <http://cssnationaldialog.org> for more information.



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*If you would prefer to receive this newsletter electronically, please email your request to [makler@otrec.us](mailto:makler@otrec.us)*

Michael G. Høglund is the Research Director at Metro, the regional planning agency for the tri-county Portland metropolitan region. The 35 members of the Research Department are responsible for developing and maintaining regional economic and travel forecasting information and models; maintaining a regional land information system and geographic information system (GIS); distributing spatial information in mapped or other graphical forms; providing economic, modeling and forecasting services to governments, agencies and private sector clients. As a member of Metro's senior leadership team, Mr. Høglund is, in part,

responsible for ensuring that Metro achieves its sustainability and workforce diversity goals. He has extensive experience in urban and regional transportation and land use planning as well as solid waste management and recycling systems, performance measurement, and sustainable practices. He has over 27 years of professional experience with Metro, TriMet and the City of Portland. He holds a Bachelor of Science in Geography from the University of Oregon and a Master of Urban Planning from Portland State University. He is a member of the American Institute of Certified Planners and the Transportation Research Board.



OTREC is a National University Transportation Center sponsored by the U.S. Department of Transportation's Research and Innovative Technology Administration Website: [www.otrec.us](http://www.otrec.us) Email: [otrec@otrec.us](mailto:otrec@otrec.us)

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