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## Northern Plains-Pacific Freight Mobility Center

Improving freight movement in the region stretching from Chicago to the Pacific Northwest is the focus of a new research and outreach center at North Dakota State University (NDSU), Washington State University (WSU), and the University of Washington (UW). “Because of the interstate nature of today’s commerce and the inter-jurisdictional issues that arise from it, a regional approach to improving freight transport is essential,” says Senator Patty Murray (D-Washington). “I look forward to the improvements in freight transportation in the region that we will see as a result of this



Nancy Nihan, Sen. Patty Murray, WA, Ken Casavant, Gene Griffin, Phyllis Scheinberg (Assistant Secretary for Budget and Programs and CFO, USDOT)

collaborative work. Those improvements will help the businesses and industries in our rural communities as well as our farmers become more competitive in a global marketplace.”

The Northern Plains-Pacific Northwest Center for Freight Mobility (NORPAC) this week received its first-year funding of \$500,000 through an appropriation to the Federal Highway Administration.

The three universities have long-standing transportation research and outreach programs,

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## TransNow Graduate Student Conference at PSU

The Second Annual TransNow Graduate Student Conference, open to transportation students in Federal Region 10, was hosted by Portland State University (PSU) on November 19, 2004. The UW sent eleven



engineering students and four urban planning students to the conference. Six of the twelve presentations were given by students from UW, and the remaining presentations were split evenly between University of Idaho students and PSU students. There were also a number of posters presented, with the majority from PSU and UW.

Tom Markgraf, an aide to US Rep. Earl Blumenauer (D-Oregon), spoke before lunch, while a panel of transportation professionals fielded questions from students following lunch. The conference concluded with a presentation from Dr. Larry Frank of the University of British Columbia. Dr. Frank

spoke about the connection between land use and the built environment; specifically how physical activity and personal health are influenced by the communities we live in. The annual Traffic Bowl was also hosted by PSU on November 19. Seven students from the UW attended.

# UW College of Engineering Open House Features Exhibit Contest



TransNow and CEE at the UW sponsored a contest with cash prizes for the best transportation science demonstration put on by students. This contest was held in conjunction with the College of Engineering Open House April 22 and 23, 2005, and was instrumental in encouraging participation by student exhibitors. Ten out of the nineteen CEE exhibits were transportation-related.




## Grand Prize

1. “Weather and Water - Climate Change and our Watersheds” - Alan Hamlet
2. “Lead Corrosion in Drinking Water Pipes” - Haizhou Liu

## Design

1. “Zapping Water Pollutants by Electrochemical Oxidation” - Lili Gan
2. “Earthquake Response of Buildings” - Pete Carney, Paul Oyen, Aaron Pettis, Aaron Sterns, Kyle Zimmer

## Teaching Presentation

1. “Timber Design-Build Contest” - students from CEE Structures
2. “Count the Cars - with LOOPSIM Detector Simulator” - Patikhom Cheevarunothai
2. “How Water Moves the Earth” - Lisa Sieck, Jing-Hui Zhang, Karina Karina 

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## Steven Peterson is Named UTC Outstanding Student for 2004




Steven Peterson

Steven Peterson from Washington State University (WSU) was awarded the 2004 Outstanding Student of the Year Award for USDOT, Federal Region Ten, on January 10, 2005. The award is presented during the Transportation Research Board Annual Meeting in Washington, DC. Peterson is from


Arlington, Texas, where he received a

Bachelor’s degree in History and a Masters degree in Economics at The University of Texas at Arlington. He is currently working toward a PhD in the School of Economic Sciences at WSU. Peterson has extensive professional experience, including working as Assistant Forecast Analyst for McKesson Drug Co., Forecast Analyst for PCS Healthcare, Inc., Distribution Analyst for Solvay Engineered Polymers, and Financial Planning Analyst for Coldwater Creek, Inc. He seeks to teach and conduct research at an academic institution with the opportunity to consult in the private sector. His research interests include transportation capital and infrastructure, geographic information systems in transportation, and the interaction between transportation networks and the development of

trade. Peterson is currently working with Prof. Eric Jessup and Prof. Ken Casavant on a project researching an empirical model of the determinants of intermodal facility location and viability. He is a member of the Strategic Freight Transportation Analysis team at WSU, where he has completed an overview of freight truck transportation in Washington. He also contributed several specific analyses of freight transportation in Washington during 2004. 

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## Combined Hospitality Suite at TRB

The TransNow Board of Directors joined with the UW CEE Department to invite students, faculty, transportation professionals, and other guests to a hospitality suite at the 84th TRB Annual Meeting. This event replaced the traditional breakfast for the Board of Directors and students. The hospitality suite proved to be an excellent setting for students, aspiring faculty candidates, and others to meet with transportation students and faculty within the six-university consortium of Federal Region 10. Approximately 100 people attended. 

## TransNow Advanced Institute at Oregon State University




OSU's branch of the TransNow Advanced Institute brings

undergraduate and graduate students together with faculty to enhance their exposure to transportation issues as well as general issues such as improving communication skills. Students participate in a transportation seminar during the winter term. They are required to submit at least one paper to the program director (Prof. Chris Bell), as well as make a commitment to stay in touch with the Kiewit Center for Infrastructure and Transportation once they graduate.

2004-2005 Advanced Institute Fellows funded at OSU include graduate students Randy Johnson (Civil Engineering), Heather Nelson (Economics), Scott Russell (Civil Engineering), Myra Long (Industrial Engineering), and undergraduates Boyen Dobrev (Civil Engineering),

Melissa Mosier (Civil Engineering), and Lu Lin Saechao (Civil Engineering). Additional students will be funded in the Summer term.

As an example of the success of TransNow student funding, Myra Long, a current fellowship student, is a graduate student in Industrial and Manufacturing Engineering and working as a graduate assistant with Profs. David Kim and David Porter on an ODOT-funded project to evaluate alternate technologies for implementation of a VMT-based road user fee. This project has received significant attention during the last 12 months, particularly from the governor of California. A significant story about this project was published in the December 2004 issue of *Government Technology* (<http://www.govtech.net/magazine/>). The project was also featured on NPR's "Morning Edition" by Wendy Kaufman. 


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## TransNow Advanced Institute at Portland State University




Eight PSU graduate students received support from the

TransNow Advanced Institute. Lynn Peterson is a PhD student in Civil and Environmental Engineering and is working with Professor Robert Bertini. Her dissertation research focuses on context-sensitive solutions. Steve Hansen and Casey Nolan are MURP students working in Prof. Bertini's ITS Lab. Prof. Bertini has been working on PORTAL, a transportation data archive started by the ITS Lab. Hansen presented a paper at the TRB Annual Meeting this year. Both Hansen and Nolan have interned at Parsons Brinckerhoff—Nolan with PB Places and Hansen with PB Consult. Among other projects, Nolan worked on an evaluation of ITS speed control measures on I-5. He has presented his research at the ITE District 6 Meeting in Sacramento, CA, and at the 2005 TRB Annual Meeting. Nolan also organized the TransNow Student Conference held at PSU in November 2004. Mike Tresidder, Jay Renkens, and Sumi Malik are all MURP students working with Prof. Jennifer Dill on various projects examining the relationships between travel behavior and urban form. Tresidder also works as an intern with Alta Planning + Design. Renkens and Malik have internships with the City

of Portland's Department of Transportation. Matt Lasky is an MURP student who worked with both Profs. Bertini and Dill. With Prof. Dill, Lasky and Malik are working on an evaluation of the impacts of transit-oriented development on travel and transit ridership. Steve Boice is an MS student in Civil and Environmental Engineering, working in the ITS Lab with Prof. Bertini on a BMW-funded project examining freeway dynamics. 

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### Students Travel to TRB Annual Meeting


TransNow provided travel funds for students to attend the Transportation Research Board Annual Meeting in Washington, DC, in January 2005. Students who participated included Ryan Avery, Steven Peterson, Patikhom Cheevarunothai, Jianhua Li, Xiaoping Zhang, Jianyang Zheng, Robert Vance, and Kevin Chang. Other students traveled to TRB on travel funding provided by TransNow-funded research projects. 

## STARLab Update

The past year has been very busy at the Smart Transportation Applications & Research Laboratory (STARLab). The STARLab website (<http://www.uwstarlab.org>) was officially launched earlier this year. Equipment donations have continued as well; with the donation of two traffic cabinets and several signal controllers, the lab had to relocate to a larger facility last summer. The STARLab is now located in More Hall 112 on the Seattle Campus of UW.

STARLab has also acquired several new software programs and data sources. A project to enable access to live feeds

of the WSDOT surveillance camera system was completed last fall, enabling more research in the video processing area. Siemens ITS provided the lab with ACTRA and i2TMS, two traffic managements systems that are used in many metropolitan areas.

The WSDOT has selected the STARLab to be a remote operations center and will provide live traffic data and traffic operation software. With this capability, STARLab will be able to train undergraduate and graduate students to better prepare them for entry into the transportation marketplace. 

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## New Faculty



**Ahmed Abdelghany** joined the department of Civil and Environmental Engineering at the University of Alaska Fairbanks in January 2005. Prof. Abdelghany is teaching classes in the Civil Engineering program and the graduate program of Engineering Management. Previously Prof.

Abdelghany worked for four years as a senior analyst within the information services division of United Airlines, Chicago. He participated in several projects related to demand forecasting, revenue management, irregular

operation management, and resource management. His role was participating in the design and development of tools that automate the decision making process for the air carrier. Prof. Abdelghany has a doctorate degree from the University of Texas at Austin in Civil Engineering (2001). During his studies he worked as a research assistant within the University's Center for Transportation Research. He assisted his advisor, Professor Hani Mahmassani, in several projects related to intelligent transportation systems, activity-based travel demand forecasting, dynamic traffic assignment, tourists' travel information needs, and high occupancy toll lanes.



**Rasaratnam Logendran** joined the faculty in the Department of Industrial and Manufacturing Engineering at OSU in Corvallis, OR, as an associate professor this year. He received a Bachelor of Science degree with honors in Mechanical Engineering from the

University of Sri Lanka, a Masters of Engineering degree in Industrial Engineering and Management from the Asian Institute of Technology in Thailand, and a PhD in Industrial Engineering and Management from Oklahoma State University. Prof. Logendran has co-edited a book titled *Group Technology & Cellular Manufacturing: Methodologies and Applications*. His areas of research

include manufacturing cell design, routing and scheduling, facilities layout design, manufacturing simulation, and integration of design and manufacturing. His research has been supported by The National Science Foundation (NSF), TransNow, and by various industrial sponsors. In 1996, he was awarded the "Most Favorite Teacher of the Year" award by the IIE Student Chapter at OSU. He has made significant contributions aimed at solving industry-related problems. Most recently, Prof. Logendran was a Fulbright Scholar at the School of Mechanical Engineering, University of Science, Malaysia, from June to September 2000. Currently he is a senior member of IIE and SME, a member of INFORMS and ASEE, and the Faculty Advisor for the Alpha Pi Mu Industrial Engineering Honor Society at OSU.



**Karen Dixon** joined the OSU Department of Civil, Construction, and Environmental Engineering as an associate professor of transportation engineering. Prior to her appointment at OSU, Prof. Dixon was a tenured associate professor

at the Georgia Institute of Technology. She earned a BS from Texas A&M University and an MCE and PhD from North Carolina State University. She is also a registered professional engineer in the states of Texas, Arizona, North

Carolina, and Georgia. Prior to returning to academia, she worked as a practicing civil engineer for over 10 years. Her teaching interests include highway engineering, traffic engineering, site development, airport design, and multi-modal transportation issues. Her research focus is on the operational and safety effects of transportation design improvements. She is the co-author of a highway engineering textbook. You can view her website at <http://ccee.oregonstate.edu/people/faculty/transportation/karendixon.html>.



**Prasad Tadepalli** is an Associate Professor of Computer Science at OSU. He holds an M. Tech degree in Computer

Science from Indian Institute of Technology, Madras, and a PhD in Computer Science from Rutgers University. His research interests are in machine learning, probabilistic modeling, and artificial intelligence as

applied to problems in engineering, transportation, and operations research. He has published approximately 50 research papers in different areas of machine learning. He is particularly interested in the modeling and prediction aspects of intelligent transportation systems. He is an editorial board member of the *Journal of Machine Learning* and a member of the American Association of Artificial Intelligence and the International Machine Learning Society.



TransNow PI **Thomas Kimpel** (PSU) and Candace Holcombe (PSU) are the delighted parents of Jonathan Rhodes Holcombe, who was born March 22, 2005, at St. Vincent’s Hospital in Portland, OR. Jonathan’s birth weight was 3.12 kilos, or a little under seven pounds.

## Thank-Yous from Students

“As a recent TransNow matching scholarship recipient, I would like to express my appreciation for this award. It is a great honor to receive a scholarship of this prestige. You are helping me achieve my childhood dream of higher education. It is also a long-term goal of mine to set up a scholarship foundation, much like this one. Thank you again!”

“It is a great honor to receive a scholarship of this prestige. You are helping me achieve my childhood dream of higher education.”

Seth Williamson (OSU)

I couldn’t have pulled it off without the support of you and the rest of the Trans-Now team. The conference was a big success. Fifty students attended. The student focus created a unique environment.”

Casey Nolan (PSU)

“Thank you very much for your help regarding the TransNow Student Conference. Being the first event that I have planned at that scale, I had no idea how many little details needed to be attended to. In the end it was all very much worth the effort, and

“I wanted to thank you and everyone at TransNow who helped make it possible to match my scholarships through the Women’s Transportation Seminar and Coral Sales. I am finishing my last semester in the fall and looking forward to contributing to the transportation industry upon graduation. Thank you for your support.”

Lee Padilla (WSU)

# TransNow Funded Students for 2004/2005

## University of Washington

**Ryan Avery** (PhD) is an RA to Prof. Yin Hai Wang and Prof. Nancy Nihan on their Video project. He was a teaching associate for Prof. Nihan in Winter Quarter 2005 and completed his MSCE this spring.

**Stephanie Beggerly** (BSCE) was a TNW intern with CH2M Hill during Winter Quarter.

**Andrea Burgess** (BSCE) was a TNW intern with WSDOT and graduated Winter Quarter.

**Brent Butler** (MSCE) is a TNW intern with Inter\*Im Community Development Association.

**Kevin Chang** (PhD) is a TNW Fellowship student under Prof. Nancy Nihan's supervision, and is interested in freight mobility and logistics.

**Brian Chase** (BSCE) started his TNW internship in Winter Quarter and works for WSDOT.

**Patikhom Cheeverunothai** (MSCE) is an RA for Prof. Nancy Nihan and Prof. Yin Hai Wang on their Loop project and was a TA for Prof. Wang during the Spring Quarter.

**Philip Corbett** (MSCE) works as a TNW intern with Parsons, Brinckerhoff, Quade & Douglas, Inc.

**Joel Franklin** (MURP) received a TNW/ENO Transportation Foundation Scholarship.

**Sara Haile** (BSCE) was a TNW intern with Parsons, Brinckerhoff, Quade & Douglas, Inc. for Winter Quarter.

**Thorsteinn Hermannsson** (MSCE) was a TNW/Valle Scholar from Iceland. He graduated March 2005.

**Justin Hughes** (MSCE) is a TNW intern with David Evans and Associates.

**Hye-Ryung Jang** (BSCE) is a TNW intern with WSDOT.

**Zahid Khan** (BSCE) graduated in June 2005 and now works full time for the City of Woodinville Public Works Department, where he had an internship.

**Kevin Latschaw** (BSCE) is a TNW intern with WSDOT.

**Janet Lee** (BSCE) started as a TNW intern with WSDOT in Winter Quarter.

**Basma Makari** (BSCE) is a TNW intern with WSDOT.

**Sarah Milroy** (BSCE) is a TNW intern with CH2M Hill.

**Michelle Newman** (MSCE) worked as a TNW intern with Mirai Associates Fall and Winter Quarter.

**Robert Nichols** (MSCE) is a TNW intern with WSDOT.

**Bret Ozolin** (BSCE) received a TNW/Coral Sales Scholarship.

**Anna St. Martin** (MSCE) received a TNW/Coral Sales Scholarship.

**Tom Stiles** (BSCE) is a TNW intern with WSDOT.

**Gabriel Thum** (MSCE) is a TNW intern with the UW Transportation Office.

**Robert Vance** (MSCE) received a TNW/Valle Scholarship and graduated December 2004.

**Nicholas Wilson** (BSCE) is a TNW intern with WSDOT.

**Guohui Zhang** (PhD) is an RA for Prof. Yin Hai Wang on his TSP Project.

**Jianyang Zheng** (MS) is an RA for Prof. Yin Hai Wang on his TSP Project.

## Oregon State University

**Boyan Dobrev** (BSCE) is a TNW/OSU Fellowship student and is interested in pursuing his MSCE.

**Don Helvie** (MS) is an RA for Prof. Rasaratnam Logendran on his Time Estimation project.

**Randal Johnson** (MS) is a TNW/OSU Fellowship student and received a TNW/Coral Sales Scholarship.

**Myra D. Long** (MSIE) is a TNW/OSU Fellowship student and is interested in human-computer interaction in relationship with transportation.

**Daineal Malone** (BSCE) received a TNW/Coral Sales Scholarship.

**Tracy May** (BSCE) received a TNW/Coral Sales Scholarship.

**Melissa Mosier** (BSCE) is a TNW/OSU Fellowship student.

**Heather Nelson** (MS) is a TNW/OSU Fellowship student.

**Scott Russell** (MS) is a TNW/OSU Fellowship student.

**Lu Lin Saechao** (BS) is a TNW/OSU Fellowship student.

## Portland State University

**Steven Boice** (MSCE) is a TNW/PSU Fellowship student and hopes to graduate this fall.

**Jamen Giffin** (MS) received a TNW/Coral Sales Scholarship.

**Steve Hansen** (MURP) is a TNW/PSU Fellowship student interested in travel demand modeling.

**Lichen Hwang** (MS) received a TNW/Coral Sales Scholarship.

**Chansung Kim** (PhD) is an RA for Prof. Robert Bertini.

**Matt Lasky** (MURP) is a TNW/PSU Fellowship student and RA for Prof. Jennifer Dill.

**Sumi Malik** (MURP) is a TNW/PSU Fellowship student and RA for Prof. Jennifer Dill.

**Casey Nolan** (MURP) is a TNW/PSU Fellowship student and organized the TNW/PSU Graduate Student Conference.

**Lynn Peterson** (PhD) is a TNW/PSU Fellowship student.

**Jay Renkens** (MURP) is a TNW/PSU Fellowship student.

**Michael Tresidder** (MURP) is a TNW/PSU Fellowship student.

**Paul Wachana** (PhD) is an RA for Prof. Thomas Kimpel and Prof. James Strathman.

**Alex White** (MURP) is an RA for Prof. Robert Bertini.

**Erin Wilson** (MURP) is an RA for Prof. Christopher Monsere.

## University of Alaska Fairbanks

**Alicia Braham** (BSCE) received a TNW/Coral Sales Scholarship.

**Jeff Organek** (BSCE) received a TNW/Coral Sales Scholarship.

## Washington State University

**Jingjuan Li** (MSCE) received a TNW/WTS Scholarship.

**Lee Padilla** (BSCE) received a TNW/Coral Sales Scholarship and a TNW/WTS Scholarship.

**Brian Pearson** (BSCE) received a TNW/Coral Sales Scholarship. ♪

# Northern Plains-Pacific Freight Mobility Center (Continued from Page 1)

making them well-suited to a regional collaborative effort, Murray says. The twelve states in the region share similarities including many small communities, large sparsely-populated areas, a historical economic dependence on agriculture, and a critical role in international trade.


“Businesses are continually evaluating locations and adjusting operations to meet the changing economic and political environment. We see this center playing an important role in monitoring and predicting these changes

and the resulting impact on infrastructure and freight transportation providers. As a result, our region will improve its competitiveness in a global economy,” notes Ken Casavant, Professor in the School of Economics at Washington State University.

Transportation security will also be a focus of the center. “Freight transportation is responsible for moving a great deal of hazardous material,” notes Nancy Nihan, Director of Transnow and Professor at the Department of Civil and Environmental Engineering at the UW. “At the same time, freight transportation of just about any kind could be subject to potential terrorism. These factors pose important threats to the security of those located in and around freight movements. This is to say nothing of the

potential impacts on commerce and the economy. A better understanding of regional freight transportation can only help to mitigate such potential threats.”

“We will be the first to look at these kinds of transportation issues on a broad regional scale,” notes Gene Griffin, Director of the Upper Great Plains Transportation Institute at NDSU. “That will give this region the ability to develop some competitive advantages in freight transportation. Secondly, it will establish a model for research and outreach in other parts of the nation.”

In its initial months the center will develop a profile of the region’s freight infrastructure and economic traffic. It will survey state department of transportation directors and personnel to learn about issues and research needs. Those steps will help identify critical freight planning issues. Center collaborators will promote a regional perspective in freight planning and policy making. They will also work with state departments of transportation to assess their ability to address freight planning, operational and policy issues in a regional context. Finally, they will work to enhance the understanding and visibility of freight transportation among policy makers. 



Ken Casavant, Nancy Nihan, Gene Griffin, Sen. Byron L. Dorgan, ND, Phyllis Scheinberg, Tony Furst (Director FHWA Office of Freight Management and Operations)



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## TransNews

### *New Fellowship Fund at UW*

UW CEE alumnus Dr. Paul Liao (PhD, UW, 1972) has donated \$1M to fund fellowships in Environmental Engineering and Civil Engineering at National Cheng Kung University in Tainan, Taiwan and at the UW. Students may study at either university. The UW has matched the Liao donation with \$500,000.

### *Seminar Series*

PSU conducts transportation seminars each Friday, open to transportation students and the general public. Live streaming video can be accessed at <http://www.media.pdx.edu>. Archived and future seminars can be found at <http://www.cts.pdx.edu/seminars.htm>.

### *Outstanding Educator Award*

UW professor and TransNow PI Joseph Mahoney received the 2005 Outstanding Educator Award at the UW College of Engineering for his contributions as a teacher, mentor, and researcher. He was described by colleagues as “in every way an ideal UW faculty member. His accomplishments in teaching, research, and service are all outstanding, and he is extraordinarily well-liked and respected by his current and former students, his colleagues, and his peers.”

### *CUTC Lifetime Achievement Award*

USDOT Secretary Norman Y. Mineta was awarded the CUTC Lifetime Achievement Award on January 24, 2005. Photos are posted at <http://cutc.tamu.edu/awards/>.

### *TransNow Alum Jennifer Rosales,*

who received a TransNow fellowship in 1994-95 while attending OSU, has received an ITE Young Professional Award that will take her to Melbourne, Australia, to present a paper on her “Road Diet” project, which converts a four-lane undivided roadway to a two-lane roadway plus a two-way left-turn lane by removing a travel lane in each direction. Go to <http://www.roadsbridges.com/lm.cfm/rb070407>.

### *New Professor at UW*

Anne Goodchild will join the faculty of the UW as an Asst. Prof. in the CEE Dept. in January 2006. TransNow will run a feature article about Prof. Goodchild in the next newsletter.

### *Three Newsletters*

Beginning October 2005 TransNow will publish three newsletters annually: October, February, June.