

Christopher M. Monsere

RESEARCH ASSISTANT PROFESSOR OF CIVIL AND ENVIRONMENTAL ENGINEERING
ASSISTANT DIRECTOR, INTELLIGENT TRANSPORTATION SYSTEMS LAB



"PSU's unique urban setting and the collaborative spirit of my colleagues in the transportation profession, both on campus and off, creates an environment that allows me to develop as a researcher and bring relevant case studies to the classroom."

When Dr. Christopher Monsere completed his Ph.D. in civil engineering at Iowa State University, he knew he wanted to pursue an academic career, but he also felt that having the practical application of working in industry would be good for his students and good for his research. As Highway Safety Engineer at the Oregon Department of Transportation (ODOT) from 2000 to 2004, his responsibilities included the identification of statewide high crash locations, developing and managing tools for the evaluation of safety projects, approving highway illumination, and technical evaluation of highway safety improvements. Dr. Monsere directed significant improvements in the highway safety program at ODOT and continues to serve on highway safety panels and task forces.

Dr. Monsere's transition to Portland State was a smooth one, and carried with it key collaborations with outside organizations. His primary research interests are in the areas of highway safety, freight transportation, and traffic operations. His research sponsors include the Oregon Department of Transportation, U.S. Department of Transportation, City of Portland, and the Foundation for Air Medical Research and Evaluation. One of his current research projects is with the city of Portland's Community and School Traffic Safety Partnership, identifying performance measures and how to best prioritize the City's safety program (www.its.pdx.edu/cstsp.php).

Dr. Monsere is one of four key faculty members in the Center for Transportation Studies (CTS), which recently received \$16 million in federal funding over the next five years for transportation research, education, and outreach programs, in collaboration with the University of Oregon, Oregon State University, and Oregon Institute for Technology. The research activity that will be sponsored by CTS is extremely exciting for faculty and students interested in transportation in Oregon.

A priority for Dr. Monsere and his colleagues is to provide students with opportunities for learning, both in and out of the classroom. His courses have a strong student-centered focus, and he works to provide his students opportunities to be involved in research, get involved with the profession, and support their career development. Incorporating real examples in his class projects is a theme of most of his courses. "My students have helped study high-crash locations in Portland and Beaverton, done preliminary design of sections of the Fanno Creek Trail, and studied the feasibility of a Willamette River passenger ferry system. The students really enjoy these projects and they learn so much!"

Finally, as advisor to the Students in Transportation Engineering and Planning (STEP), Dr. Monsere has helped support student experiences at local, regional, and national conferences.

Education

- Ph.D., Iowa State University, 2001
- MSCE, Iowa State University, 1997
- BSCE, Univ. of Detroit Mercy 1995

Professional Experience

- Registered professional engineer, Oregon.
- Highway Safety Engineer, Oregon DOT 2000-2004.
- Other experience in consulting.

Goals at Portland State University

- Leverage resources and create research program that benefits city, state and region on a variety of important areas including safety, freight and operations.
- Create real student learning experiences.
- Mold next generation of transportation professionals
- Transfer knowledge to community and industry.
- Build on existing partnerships within Portland State University, Oregon University System, and external partners.



Accomplishments

- Two new transportation engineering courses - Freight Transportation and Safety Analysis - unique in Oregon.
- Building publication record, 32 publications (18 peer-reviewed), nearly all with student co-authors.
- Generated \$500,000 external research funding at Portland State—most to support students.
- Service to the profession - active with the Institute of Transportation Engineers (ITE) and was the recipient of the ITE Oregon Section and District 6 Outstanding Individual Achievement Award for his contributions to transportation education, research, and practice in 2005.



Center for Transportation Studies

- New cross-disciplinary organization.
- Weekly, free, and open to the public – Friday Seminars on-line – co-organized with Professors Bertini and Dill is an incredible resource.
- National University Transportation Center in partnership with University of Oregon, Oregon State University and Oregon Institute of Technology.
- www.cts.pdx.edu.

Intelligent Transportation Systems Lab

- Motor Vehicle Crash Fatalities and Injuries: An Analysis of the Relationship of Roadway, Driver, Vehicle, and Emergency Medical Services in Oregon Counties.
- Evaluating Traffic Signal Improvements for Freight Mobility.
- Using Existing ITS Commercial Vehicle Operation (ITS/CVO) Data to Develop Statewide (and Bi-state) Truck Travel Time Estimates and Other Freight Measures .
- Research and Evaluation Lead, Community School and Traffic Safety Partnership, City of Portland.
- Policy Report: Raising Oregon's Interstate Speeds
- Analysis of Speed Related Crashes on the State Highway System.
- Update of Crash Reduction Factors for the Oregon DOT
- Validation of Freeway Travel Time Messages on Portland Freeways.
- Motor Carrier Enforcement's Role in Fuel Tax Evasion
- Enhancing the Oregon Crash Reporting Process: A Feasibility Assessment.
- A Comprehensive Assessment of Electronic Communications from Oregon Courts to the DMV.
- Establishing the Link between Urban Form, Street Connectivity, Roadway Design, and Pedestrian Safety.
- Understanding the Safety Effects of Roadway Illumination Reductions.
- www.its.pdx.edu.

Research Sponsors

- Oregon Department of Transportation.
- U.S. DOT and FHWA.
- TransNow.
- City of Portland.
- Foundation for Air Medical Research and Education.



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