

Curriculum Vitae

Edward D. McCormack

Washington State Transportation Center (TRAC)
University of Washington
1107 NE 45th Street, Suite 535
Seattle, WA, 98105
Ph:(206) 543-3348, Fax:(206) 685-0767
edm@u.washington.edu

EDUCATION

Ph.D. in Geography, University of Washington, Seattle (1997). Emphasis: transportation planning and modeling.

M.S. in Civil Engineering, University of Washington, Seattle (1985). Emphasis: urban transportation planning.

B.A. in Geography, University of Washington, Seattle (1979).

PROFESSIONAL HISTORY

Research Assistant Professor, *Civil and Environmental Engineering, University of Washington, Seattle.* (October, 2007 – present).

Senior Research Engineer, *Washington State Transportation Center, University of Washington, Seattle.* Principal investigator responsible for researching transportation applications of technology. Project manager for the Washington State Department of Transportation's freight and border mobility technology program (1995– present).

Lecturer, *Urban Design and Planning, University of Washington, Seattle.* Taught an on-line class on critical infrastructure protection for the Masters in Strategic Planning for Critical Infrastructures program (2005–present).

Instructor, *Civil and Environmental Engineering, University of Washington, Seattle.* Developed and taught a graduate freight transportation class (2003–present).

Research Assistant, *Washington State Transportation Commission, Innovations Unit, Seattle.* Managed a multi-year study of the land use-transportation relationship (1993–1995).

Senior Transportation Planner, *David Evans and Associates, Bellevue, Washington.* Responsible for consulting firm's transportation modeling program. Devised transportation and traffic mitigation plans for developers (1990–1993).

Research Engineer, *Washington State Transportation Center, University of Washington, Seattle.* As project staff, completed transportation research projects including developing transportation planning and truck flow models, analyzing census travel data, and evaluating roadway safety issues (1985–1990).

Assistant Transportation Planner, *Puget Sound Council of Governments, Seattle.* Analyzed census and transportation data and worked on environmental impact statements for a proposed light rail system (1982, 1983–1985).

Stipend Transportation Researcher, *Norwegian Technical University, Trondheim, Norway*. Under a Valle Scholarship analyzed the economics of transit networks (1982–1983).

Research Assistant, *Department of Civil Engineering, University of Washington, Seattle*. Participated in a study to improve transit routing efficiency (1981–1982).

Cartographic Assistant, *King County Planning, Seattle* (1979–1980).

REFEREED JOURNAL PUBLICATIONS

McCormack, E. D., and M. E. Hallenbeck (2006) ITS Devices Used to Collect Truck Data for Performance Benchmarks. *Transportation Research Record 1957*, 43-50.

McCormack, E. D., and P. M. Briglia (2003) Using Technology to Move Freight in Washington State. *ITE Journal 73*(4), 46–49.

McCormack, E. D., G. S. Rutherford, and M. E. Wilkinson (2001) Travel Impacts of Mixed Land Use on Neighborhoods in Seattle. *Transportation Research Record 1780*, 25–32.

McCormack, E. D., and B. Legg (2000) The Role of ITS in Urban Safety. *ITS Quarterly 8*(2), 39–51.

McCormack, E. D., and B. Legg (1999) ITS and Rural Road Safety. *ITS Quarterly 7*(2), 23–35.

McCormack, E. D., (1999) Using a GIS to Enhance the Value of Travel Diaries. *ITE Journal 69*(1), 38–43.

McCormack, E. D., and T. L. Nyerges (1997) What Transportation Modeling Needs from a GIS: A Conceptual Framework. *Transportation Planning and Technology 21*(1–2), 5–23.

Ulberg, C., and E. D. McCormack (1988) Accuracy and Other Factors Affecting a Continuous Vehicle Occupancy Monitoring Program. *Transportation Research Record 1206*, 35–47.

REFEREED CONFERENCE PROCEEDINGS

McCormack, E. D., and M. E. Hallenbeck, Using ITS Devices to Create Freight Performance Benchmarks. Poster Session, Transportation Research Board 2005 Annual Meeting, January, Washington D.C.

McCormack E. D., ITS on the Washington/British Columbia Border, Rural Advanced Technology and Transportation Systems, Burlington, Vermont, CD-ROM August 25–28, 2001.

McCormack E. D., Rural ITS Safety Applications - Why They Need to be Different from Urban Applications. *Rural Advanced Technology and Transportation Systems International Conference*, CD-ROM, August 1999, Flagstaff, Arizona.

McCormack E. D., The Contribution of ITS to Rural Safety: A Look at Crashes in Washington State. *Rural Advanced Technology and Transportation Systems International Conference*, CD-ROM, August 1998, State College, Pennsylvania.

McCormack E. D., Rural Transportation Investment and Economic Development. *Rural Advanced Technology and Transportation Systems International Conference*, August 1997, Big Sky, Montana.

Rutherford, G. S., E. D. McCormack, and M. E. Wilkinson, Travel Impacts of Urban Form: Implications from an Analysis of Two Seattle Area Travel Diaries. *Travel Model Improvement Program Conference on Urban Design, Telecommuting and Travel Behavior*, October 1996, Williamsburg, Virginia.

Doughtery B. and E. D. McCormack, A Reduced Fare Permit for Elderly and Disabled. *Proceedings of the Third International Conference on Mobility and Transportation for Elderly and Handicapped Persons*, October 1984, Orlando, Florida.

REPORTS

McCormack, E. D., and M. E. Hallenbeck (2005) *Options for Benchmarking Performance Improvements Achieved from Construction of Freight Mobility Projects*. TRAC/University of Washington report for the Washington State Department of Transportation, WA-RD 607.1.

McCormack, E. D., and M. E. Hallenbeck (2004) *Options for Benchmarking Performance Improvements Achieved from Construction of Freight Mobility Strategic Investment Board (FMSIB) Projects*. TRAC/University of Washington report for the Washington State Freight Mobility Strategic Investment Board.

Hallenbeck, M. E., E. D. McCormack, J. Nee, and D. Wright (2003) *Freight Data from Intelligent Transportation System Devices*. TRAC/University of Washington report for the Washington State Department of Transportation, WA-RD 566.1.

McCormack, E. D., and B. Legg (1999) *Technology and Safety on Urban Roadways: The Role of ITS for WSDOT*. TRAC/University of Washington report for the Washington State Department of Transportation, WA-RD 460.2.

McCormack, E. D., and B. Legg (1999) *The Contribution of ITS to Rural Safety: A Look at Crashes in Washington State*. TRAC/University of Washington report for the Washington State Department of Transportation, WA-RD 460.1

McCormack, E. D. (1997) *Transportation and Economic Development Linkages*. TRAC/University of Washington report for the Washington State Department of Transportation Planning Office.

Carson, J., J. Nee, and E. D. McCormack (1997) *An Investigation into the Effectiveness of Ice Warning Sign Placement Features*. TRAC/University of Washington report for the Washington State Department of Transportation, WA-RD 446.1.

McCormack, E. D. (1995) *A Chained-based Exploration of Work Travel by Residents of Mixed Land-Use Neighborhoods*. Ph.D. dissertation.

McCormack, E. D. (1995) *Congestion Pricing: An Examination of Feasibility Issues*. Washington State Transportation Commission Innovations Unit report prepared for the Washington State Transportation Commission, WA-RD 095.1.

McCormack, E. D., J. Chang, G. S. Rutherford, and J. M. Ishimaru (1995) *The Transportation Impacts of Mixed Land-use Neighborhoods*. Washington State Transportation Commission

Innovations Unit report prepared for the Washington State Transportation Commission, WA-RD 095.7.

Chang, J., E. D. McCormack, G. S. Rutherford, and J. M. Ishimaru (1993) *Congestion on SR 520: A Study of Comprehensive Ramp Metering Alternatives*. Washington State Transportation Commission Innovations Unit report prepared for the Washington State Transportation Commission, WA-RD 093.4.

McCormack, E. D. (1990) *Final Comprehensive Transportation Plan for the City of Brier*. David Evans and Associates consultant report.

McCormack, E. D. (1990) *A State Level Freight Forecasting Model Framework*. TRAC/University of Washington report for the Washington State Department of Transportation.

McCormack, E. D., and L. W. Blain (1990) *State Level Transportation Applications using TIGER*. TRAC/University of Washington report for the Washington State Department of Transportation, WA-RD 209.1.

McCormack, E. D., and R. R. Sekar (1989) *Ferry Fuel Consumption Improvement Study*. TRAC/University of Washington report for the Washington State Energy Office.

McCormack, E. D. (1988–1989) *UTPS Info - News from the Urban Transportation Planning Systems Center*. Four newsletters prepared for the Urban Mass Transportation Administration.

Hallenbeck, M. E., G. S. Rutherford, and E. D. McCormack (1988) *Traffic and Safety Analysis Procedures: Final report*. TRAC/University of Washington report for the Washington State Department of Transportation, WA-RD 156.2.

McCormack, E. D. (1988) *The Use of Taxis and Jitneys for Low-density Transportation*. TRAC/University of Washington report for the Washington State Department of Transportation.

Rutherford, G. S., M. E. Hallenbeck, and E. D. McCormack (1988) *Traffic and Safety Procedure: Project Report on the Safety and Accident Procedures*. TRAC/University of Washington report for the Washington State Department of Transportation, WA-RD 156.1.

Ulberg, C., and E. D. McCormack (1988) *Auto Occupancy Monitoring*. TRAC/University of Washington report for the Washington State Department of Transportation, WA-RD 157.1.

McCormack, E. D. (1987) *Suggested Revision to WSDOT's Standard Plan Concerning Induction Loop Installation*. TRAC/University of Washington report for the Washington State Department of Transportation.

Hallenbeck, M. E., G. S. Rutherford, and E. D. McCormack (1987) *UTPS Microcomputer - Case Study and Training Ads; Instructions to Lecturers*. TRAC/ University of Washington report prepared for the Urban Mass Transportation Administration.

McCormack, E. D. (1987) *Double Bottom Truck Accidents on Interstate 90: Project Report*. TRAC/University of Washington report for the Washington State Department of Transportation, WA-RD 134.

McCormack, E. D. (1987) *Snowplowable Delineators - State-of-the-Art Study*. TRAC/ University of Washington report for the Washington State Department of Transportation.

Rutherford, G. S., M. E. Hallenbeck, and E. D. McCormack (1987) *UTPS/SLIM Application Manual and Case Study*. TRAC/ University of Washington report prepared for the Urban Mass Transportation Administration.

Rutherford, G. S., E. D. McCormack, M. E. Hallenbeck, and R. Harvey (1987) *UTPS/SLIM-Simplified Limited Instructional Manual-Program Documentation*. TRAC/University of Washington report prepared for the Urban Mass Transportation Administration.

Ulberg, C., and E. D. McCormack (1987) *TSM Evaluation - Initial Employment Site Vehicle Occupancy and Pedestrian Counts*. TRAC/University of Washington report prepared for the Municipality of Metropolitan Seattle.

Hallenbeck, M. E., and E. D. McCormack (1986) *State Travel Forecasting Final Report*. TRAC/University of Washington report for the Washington State Department of Transportation.

McCormack, E. D. (1986) *Self-service Fare Collection - A Literature Survey*. TRAC/ University of Washington report for the Washington State Department of Transportation.

McCormack, E. D. (1986) *Measuring Traffic Sign Reflectivity*. TRAC/University of Washington report for the Washington State Department of Transportation.

McCormack, E. D. (1986) *Transit as an Alternative to the Proposed Outer Ringway*. Norwegian Technical University Transport Institute research report.

McCormack, E. D. (1986) *An Examination of Transit's Work Trip Share Using Census Journey-to-Work and Transit On-Board Survey Data*. Master's thesis.

Rutherford, G. S., E. D. McCormack, M. E. Hallenbeck, and R. Harvey. (1985) *UTPS / SLIM - Simplified Limited Instructional Manual - Program Documentation*. TRAC/University of Washington report prepared for the Urban Mass Transportation Administration.

J. B. Schneider, R. Deardorf, C. Deffenbach, J. Latteman, E. McCormack, and C. Wellander (1983) *Planning, Designing and Operating Multi-Center Timed-Transfer Transit Systems: Guidelines from Recent Experience in Six Cities*, Urban Mass Transportation Administration, UMTA-WA-11-0009-84-1.

FUNDED RESEARCH

Software Support for the Border Data System, Whatcom Council of Governments, Principal Investigator, \$22,000 (August 2006–present).

Testing an Unmanned Aerial Vehicle for the Washington State Department of Transportation, U.S. Department of Transportation, Principal Investigator, \$120,000 (August 2005–present).

Washington's ITS Projects: Developing Lessons Learned, U.S. Department of Transportation, Principal Investigator, \$15,000 (July 2005–July 2006).

Developing Performance Benchmarks for Trucks, Washington State Freight Mobility Strategic Investment Board, Principal Investigator, \$25,000 (February 2004–February 2005).

Field Operational Test of Electronic Container Seals, U.S. Department of Transportation, Principal Investigator, \$300,000 (December 2002–present).

Queuing Analysis at the Peace Arch International Border Crossing, Whatcom County Council of Governments, Principal Investigator, \$36,000 (August 2000–December 2001).

Improving Intermodal Freight Data, Washington State Department of Transportation, Principal Investigator, \$262,021 (January 2000–February 2003).

ITS for Roadway Safety, Washington State Department of Transportation, Principal Investigator, \$50,000 (November 1998–September 2003).

ITS for Safety on Rural Roads, Principal Investigator, Washington State Department of Transportation, \$120,400 (September 1997–September 2001).

PROJECT MANAGEMENT

ITS and Commercial Vehicle Operations. (Project to explore what the trucking community needs from technology.) Project Manager for the Washington State Department of Transportation, \$146,000 (2004–present).

Electronic Container Door Seal Field Operational Test. Project Manager for the Washington State Department of Transportation and Customs and Border Protection, \$2,200,000 (2003–present).

Freight Mobility Strategic Investment Board. (Project to install transponder readers for freight data collection.) Project Manager for the Washington State Department of Transportation, \$439,000 (2003–present).

International Trade Corridor Phase 2. (Technology use to increase freight mobility at the Washington/British Columbia Border.) Project Manager for the Washington State Department of Transportation, \$1,701,000 (2001–2005).

Intermodal Freight Data. Project Manager for the Washington State Department of Transportation and U.S. Customs, \$511,000 (2000–2003).

SR 5, US/Canada CVO Border Crossing. (Technology to facilitate trucks movement at the Washington/British Columbia Border.) Project Manager for the Washington State Department of Transportation, \$1,675,000 (1997–2004).

PRESENTATIONS

Developing Truck Mobility Benchmark in Washington State, Research Issue in Freight Transportation: Congestion and System Performance, Transportation Research Board, Washington D.C., October 22, 2007.

Improving the Efficiency of Regional Systems, Faster Freight - Cleaner Air Puget Sound Conference, May 16, 2007.

Using Network and Optimization Tools to Protect and Analyze Critical Infrastructure, Industrial Engineering Seminar, Seattle, University of Washington, February 6, 2007.

Testing Unmanned Aircraft, Washington State Intelligent Transportation Society, Bellevue, Washington, October 3, 2006.

Near Real-Time Truck Travel Data in Rural Corridors, National Rural Intelligent Transportation Systems Conference, Big Sky, Montana, August 12–15, 2006.

Freight Mobility Data Collection, Washington State Intelligent Transportation Society Annual Conference, Seatac, Washington, October 14, 2004.

Technology at Borders, National Rural Intelligent Transportation Systems Conference, Spokane, Washington, September 12, 2005.

Washington State's eSeal Project, GCM - Highway Freight Technology Showcase. Invited and funded by the U.S. Department of Transportation's Peer-to-Peer Program, Argonne National Laboratory, Illinois, May 11, 2004.

Technology at the Border - A Bi-national Effort, Association for Canadian Studies in the United States, Portland, Oregon, November 19–23, 2003. (Co-presented with K. Kitaska)

Freight Mobility Data Collection, Washington State Intelligent Transportation Society, Seatac Washington, October 14, 2003.

The Border, Trucks, and Technology, Institute of Transportation Engineers Quad Meeting, Victoria, British Columbia, April 4–5, 2003.

Trucks, Borders, and Electronic Container Seals, Intelligent Transportation Systems-Commercial Vehicle Operations Deployment Showcase, Las Vegas, Nevada, January 28–30, 2003.

A Trade Corridor and Electronic Seals, Transportation Research Board Annual Conference, Washington D.C., January 9, 2003.

ITS Research in Washington State, Japanese peer-to-peer visit, Seattle, Washington, November 7, 2002.

Testing Electronic Container Seals, Washington State Intelligent Transportation Society Annual Conference, SeaTac, Washington, September 24, 2002.

Freight and Technology Projects in the Northwest, USDOT/Cargo Handling Cooperative Program - Industry Workshop, Seattle Washington, July 25, 2002.

The Evolution of Weather Information in Washington State and Border Technology in Washington State, TransTech Alaska. Invited and funded by Alaska Department of Transportation and Public Facilities, Anchorage, Alaska, October 22–24, 2001.

Automatic Vehicle Identification, Northwest Freight Conference - Moving Our Economy, Seatac, Washington, October 7, 2001.

ITS on the Washington/British Columbia Border, Rural Advanced Technology and Transportation Systems Conference, Burlington Vermont, August 25–28, 2001.

Mixed Land Use Neighborhoods and Transportation, Transportation Research Board Annual Meeting, January 11, 2001, Washington D.C.

Ports-Roads-Borders: Technology and the I-5 Corridor in Washington, Cascadia Conference, Eugene, Oregon, September 26–27, 2000.

Ports, Roads, Borders: ITS in Washington State, ITS America - Tenth Annual Meeting and Exposition, Boston, Massachusetts, May 1–4, 2000.

Freight and Technology in Washington State - Steering Committee Presentations, California Statewide Goods Movement ITS Action Plan. Invited and funded by the California Department of Transportation, Sacramento, California. Three meetings 1999–2000.

Rural ITS Safety Applications - ITS for Safety and Why Urban and Rural Applications Differ, Rural Advanced Technology and Transportation Systems Conference, Flagstaff, Arizona, August 29–September 1, 1999.

Intelligent Transportation Systems in Washington State, American Association of Port Authorities - Information Technology Seminar, Vancouver, British Columbia, May 14–16, 1999.

Using Data from the Puget Sound Transportation Panel, TRB Task Force on Survey Methods, Seattle, Washington, July 13, 1998.

Rural ITS Safety Study, Accidents and Safety, ITS Oregon and ITS Washington, Applying Transportation Technology to Rural Travel, Vancouver, Washington, November 2–3, 1998.

Mixed land use Neighborhoods and Transportation Patterns, Institute of Transportation Engineers, Quad Conference, Seattle Washington, April 7, 1998.

CVISN and the Commercial Vehicle Operation Program, Electronic Tag System for Trucks at the WA/BC border, Statewide Regional Traffic Engineers Meeting for Washington State Department of Transportation, Vancouver Washington, December 3–4, 1997.

Travel Impacts of Urban Form: Implications from an Analysis of Two Seattle Area Travel Diaries, Travel Model Improvement Program Conference on Urban, Design, Telecommuting, and Travel Behavior, Transportation Research Board, Williamsburg, Virginia, October 27–30 1996. (Co-presented with M. Wilkinson).

TEACHING AND EDUCATION

Instructor, CEE 591, Freight Transportation, Civil and Environmental Engineering, University of Washington. Fall 2003 (evaluation 3.9 out of 5.0), 2005 (4.3 out of 5.0), and 2006 (4.3 out of 5.0).

Lecturer, SPCI 503, Critical Infrastructure Analysis, Masters in Strategic Planning for Critical Infrastructures, Urban Design and Planning, University of Washington. Fall 2005, 2006 (evaluation 4.0 out of 5.0), and Winter 2007 (4.6 out of 5.0).

Co-Instructor (33%), CEE 582, Intelligent Transportation Systems, Civil and Environmental Engineering, University of Washington. (Co-taught with Mark Hallenbeck) Winter 2004, 2005, and 2006.

Guest Lecturer in Civil and Environmental Engineering on a variety of topics including GIS and Transportation, Congestion Pricing, and Transportation and Land Use (1995–present).

Organizer, West Coast ITS Coordination, Seatac, Washington, October 10, 2001 (60 attendees).

Organizer and Moderator, The Technology Behind ITS Workshop, Seattle, November 7, 2000 (100 attendees).

Organizer, ITS Ideas Workshop, Seattle, February 4, 1998 (50 attendees).

Speaker, Workshop on Geographic Information Systems for Urban and Regional Planning, Seattle, June 28–30, 1994.

Co-Instructor, Introduction to Urban Travel Forecasting Procedures, Seattle, August 21–25, 1989.

Manager, UTPS Travel Demand Model Software Support Center (1987–1989).

PROFESSIONAL ACTIVITIES

Transportation Commissioner, City of Lake Forest Park, Washington (2004–Present).

Steering Committee Member, Commercial Vehicle and Freight Mobility Forum, ITS America (2003–Present).

Co-Chair, ITS America's Intermodal Freight Special Interest Group (2003–Present).

Chair, ITS sub-committee, International Mobility and Trade Corridor Project (IMTC), Whatcom Council of Governments (2001–Present).

Steering Committee Member, International Mobility and Trade Corridor Project (IMTC), Whatcom Council of Governments (1999–Present).

Steering Committee Member, California Statewide Goods Movement ITS Action Plan, California Department of Transportation, Sacramento, California (1999–2000).

AWARDS

Ullman Award for Outstanding Doctoral Work, Department of Geography, University of Washington, 1997.

Valle Scandinavian Exchange Scholarship for Study at the Norwegian Technical University in Trondheim, University of Washington, 1982–1983.