

October 2009

**CURRICULUM VITAE: GÅRDER, Per Erik**

Dept. of Civil and Environmental Engineering, University of Maine, Orono, Maine 04469-5711

E-mail: [Garder@Maine.edu](mailto:Garder@Maine.edu) Info: <http://www.umeciv.maine.edu/ce/faculty/geotech.htm#Garder>**Professional Experience**

September 2002 - present: Professor, University of Maine, Department of Civil and Environmental Engineering

September 1992 - August 2002: Assistant/Associate Professor, University of Maine, Department of Civil and Environmental Engineering (Tenured: September 1995)

1983 - 1992: Associate Professor at the Department of Traffic and Transport Planning at the Royal Institute of Technology (KTH), Stockholm, Sweden. 1984 - 1988 and 1989 - 1992 also Head of Department

August 1988 - June 1989: Sabbatical year at the Highway Safety Research Center at the University of North Carolina in Chapel Hill, N.C., USA

August 1982 - June 1983: Post Doctorate Studies at the Department of Civil Engineering, University of Toronto, Toronto, Ontario, Canada

1976-1982: Department of Traffic Planning and Engineering at Lund Institute of Technology (LTH), Lund, Sweden. Teaching assistant in traffic engineering, traffic planning and traffic safety courses; researcher; and during two semesters also acting as lecturer

1975-1976: Drafted in the Swedish Artillery (with surveying responsibilities)

1974: Teaching assistant in Hydraulics at Lund Institute of Technology, Sweden

Summer of 1974: IAESTE stipendiary (co-op) with Binnie and Partners, London, England

**Educational Background**

Ph.D.-degree (Teknologie Doktorsexamen), June 1982, from Lund Institute of Technology, Lund, Sweden. Field: Transportation/Civil Engineering. Thesis: "Pedestrian Safety at Traffic Signals"

Licentiate-degree, January 1982, from Lund Institute of Technology, Lund, Sweden. Field: Transportation/Civil Engineering. Thesis: "Traffic Conflicts Studies in Rural Areas"

Master of Science in Civil Engineering, June 1975, from Lund Institute of Technology, Lund, Sweden. Thesis: "Investigation of Bus-Line Strategies - Application Landskrona"

Gymnasieexamen in Natural Sciences (Naturvetenskaplig linje), June 1971, from Ekenässkolan, Eslöv, Sweden

**Publications**Refereed Articles in Major Journals

- A21 Nathan P. Belz and Per E. Gårder (corresponding author), "Maine Statewide Deployment and Integration of Advanced Traveler Information Systems," *Transportation Research Records*—the Journal of the Transportation Research Board, National Research Council, Washington D.C., *accepted for publication in February 2009*

- A20 Jörgen Lundälv, Per Gårder, Ralf Risser, Lars Leden, "Police Cycle-Patrols in Finland: A Qualitative Study Applying the Diamond Model," *the Police Journal*, Volume 81, pp 323-335, Vathek Publishing, Isle of Man, the UK, February 2009
- A19 Zuxuan Deng, John N. Ivan, Per E. Garder, "Analysis of Factors Affecting the Severity of Head-On Crashes on Two-Lane Rural Highways in Connecticut," *Transportation Research Records—the Journal of the Transportation Research Board—No 1953*, pp 137-146, National Research Council, Washington D.C., November 2006
- A18 Per Gårder, Michael Davies, "Safety Effect of Continuous Shoulder Rumble Strips on Rural Interstates in Maine," *Transportation Research Records—the Journal of the Transportation Research Board—No 1953*, pp 56-162, National Research Council, Washington D.C., November 2006
- A17 Per Gårder, "Segment Characteristics and Severity of Head-on Crashes on Two-Lane Rural Highways in Maine," *Accident Analysis and Prevention* Volume 38, Issue 4, pp. 652-661, July 2006
- A16 Lars Leden, Per-Erik Wikström, Per Gårder, Peter Rosander, "Safety and Accessibility Effects of Code Modifications and Traffic Calming of an Arterial," *Accident Analysis and Prevention*, Volume 38, Issue 3, pp 455-461, May 2006
- A15 Lars Leden, Per Gårder, Charlotta Johansson, "Safe Pedestrian Crossings for Children and Elderly," *Accident Analysis and Prevention* Volume 38, Issue 2, pp. 289–294, March 2006
- A14 Per Gårder, "The Impact of Speed and Other Variables on Pedestrian Safety in Maine," *Accident Analysis and Prevention* (Elsevier) Volume 36, Issue 4, pp. 501-696, July 2004
- A13 Charlotta Johansson, Per Gårder, Lars Leden, "Towards Vision Zero at Zebra Crossings - A Case Study in Malmö, Sweden on Traffic Safety and Mobility for Children and Elderly," *Transportation Research Records—the Journal of the Transportation Research Board—No 1828*, pp 67-74, National Research Council, Washington D.C., August 2003. (Also published as paper number 03-2511 in the 82<sup>nd</sup> Annual TRB Meeting Compendium of Papers CD-ROM, January 2003)
- A12 Bhagwant Persaud, Richard Retting, Per Gårder, and Dominique Lord, "Safety Effect of Roundabout Conversions in the United States: Empirical Bayes Observational Before-After Study," *Transportation Research Records—the Journal of the Transportation Research Board No. 1751, Geometric Design and the Effects on Traffic Operations 2001*, pp 1–8, National Research Council, Washington D.C., November 2001. (Also published as Paper No. 01-0562 at the 80<sup>th</sup> Annual TRB Meeting Compendium of Papers CD-ROM, January 2001)
- A11 Bhagwant Persaud, Richard Retting, Per Gårder, and Dominique Lord, "Crash and Injury Reductions Following Installation of Roundabouts in the United States," *American Journal of Public Health* Vol. 91, No. 4, pp. 628-631, April 2001
- A10 Per Gårder and Lars Leden, "Promoting Safe Walking and Cycling," *Nordic Road & Transport Research*. Number 3, 2000, pp.12-15, December 2000
- A9 Per Gårder, Lars Leden, and Uhro Pulkkinen, "An Expert Judgment Model Applied to Estimating the Safety Effect of a Bicycle Facility," *Accident Analysis and Prevention*

Volume 32 Issue 4, pp. 589-599, July 2000

- A8 Per Gårder, “Little Falls, Gorham—Reconstruction to a Modern Roundabout,” *Transportation Research Records*—the Journal of the Transportation Research Board—No. 1658 Highway Geometric Design and Operational Effect Issues, pp 17 –24, National Research Council, Washington D.C., August, 1999. (Also presented at the 78<sup>th</sup> Annual TRB Meeting, January 10-14, 1999, Washington, DC as Preprint 990349)
- A7 Per Gårder, Lars Leden, and Uhro Pulkkinen, “Measuring the Safety Effect of Raised Bicycle Crossings Using a New Research Methodology,” *Transportation Research Records*—the Journal of the Transportation Research Board—No. 1636, Safety and Human Performance, pp 71-76, National Research Council, Washington D.C., November 1998 (Also presented at the 77<sup>th</sup> Annual Meeting of TRB in January 1998 as TRB Preprint: 981360)
- A6 Per Gårder and Lars Leden, “Key Areas of Traffic Safety Work According to European Experts,” *Nordic Road & Transport Research*, No. 2, 1998, pp. 20-22, August 1998
- A5 Per Gårder. “Rumble Strips or Not Along Wide Shoulders Designated for Bicycle Traffic.” *Transportation Research Records*—the Journal of the Transportation Research Board—No. 1502, pp. 1-7, TRB, National Research Council, Washington D.C., 1995. (Also presented at the 74<sup>th</sup> Annual Meeting of TRB in January 1995 as TRB Preprint: 950231)
- A4 Per Gårder. “Bicycle Accidents in Maine: An Analysis.” *Transportation Research Records*—the Journal of the Transportation Research Board—No. 1438: Safety and Human Performance-Research Issues on Bicycling, Pedestrians, and Older Drivers, pp. 34-41, National Research Council, Washington D.C., 1994. (Also presented at the 73<sup>rd</sup> Annual Meeting of TRB in January 1994 as TRB Preprint 940328)
- A3 Per Gårder, Lars Leden & Torbjörn Thedéen. “Safety Implications of Bike Paths at Signalized Intersections.” *Accident Analysis & Prevention* Volume 26, No. 4, pp. 429-439, 1994
- A2 Per Gårder. “Pedestrian Safety at Traffic Signals: A Study Carried out with the help of a Traffic Conflicts Technique.” *Accident Analysis and Prevention* Vol 21, No. 5, pp. 435-444, October 1989
- A1 Ezra Hauer & Per Gårder. “Research into the Validity of the Traffic Conflicts Technique”. *Accident Analysis and Prevention*. Vol. 18, No. 6, pp 471-481, 1986

#### Refereed Chapter of Book

- B2 Per Gårder “Traffic Safety Before and After Introduction of Red-Light Running Photo Enforcement in Maine.” Chapter 4 in: *Traffic Accidents: Causes and Outcomes*. Editor: Graham P. Bartley, pp. ISBN: 978-1-60456-426-6 © 2008 Nova Science Publishers, Inc. Hauppauge, NY, March 2008
- B1 Christer Lindh & Per Gårder, “The Use of Subjective Rating in Deciding RTI Success,” refereed chapter of the book *Driving Future Vehicles*, edited by A.M. Parkes, HUSAT Research Institute, Loughsborough, England, pp. 391-400. Published by Taylor & Francis, London and Washington D.C., November 1993

Full Papers in Refereed/Reviewed Conference Proceedings

- C29 Hongmei Zhou, John N. Ivan, Nicholas E. Lownes, Per E. Gårder, “Differences in Gap Acceptance of Elderly Drivers,” accepted for Presentation at the 88th Annual Meeting of the Transportation Research Board (January 2010) and to be published in the 89<sup>th</sup> Annual TRB Meeting Compendium of Papers CD-ROM January 2010
- C28 Nathan P. Belz and Per E. Gårder (corresponding author), “Maine Statewide Deployment and Integration of Advanced Traveler Information Systems,” Published in the 88<sup>th</sup> Annual TRB Meeting Compendium of Papers CD-ROM January 2009 (Also accepted to *Transportation Research Records*—the Journal of the Transportation Research Board, National Research Council, Washington D.C.)
- C27 Lars Leden, Per Gårder, Charlotta Johansson, and Peter Rosander, “Bus Humps or Virtual Bumps Or Both?” Towards Future Traffic Safety—20th ICTCT -Workshop in Valencia, Spain on October 25-26, 2007
- C26 Charlotta Johansson, Per Gårder, Lars Leden, “Two Case Studies on Urban Traffic Planning for Children and Elderly,” presented at the WCTR 2007 - World Conference on Transport Research at the University of California Berkeley June 24-28, 2007. Conference website: <http://www.uctc.net/wctrs>
- C25 Mark C. Smith, Adel W. Sadek, Ian Johnson, Lisa Aultman-Hall, and Per Garder, “Assessing the Accuracy of Roundabouts Analysis Procedures against Field Observations: Preliminary Results from a Case Study in Northern New England. Presented at the Transportation Research Board 86th Annual Meeting, Washington, D.C., January 2007. Published in the 86<sup>th</sup> Annual TRB Meeting Compendium of Papers CD-ROM as paper 07-2868
- C24 Charlotta Johansson, Per Gårder, Lars Leden, “A Vision for a Safe Traffic Environment for Children,” presented at the Transport Research Arena’s First European Road Transport Research Conference, Göteborg, Sweden, June 12-16, 2006
- C23 Zuxuan Deng, John N. Ivan and Per E. Garder, “Analysis of Factors Affecting the Severity of Head-On Crashes on Two-Lane Rural Highways in Connecticut,” Published in the 85<sup>th</sup> Annual TRB Meeting Compendium of Papers CD-ROM, January 2006
- C22 Per Gårder, Michael Davies, “Safety Effect of Continuous Shoulder Rumble Strips on Rural Interstates in Maine,” Published in the 85<sup>th</sup> Annual TRB Meeting Compendium of Papers CD-ROM, January 2006
- C21 Charlotta. Johansson, Per Gårder, Lars Leden, “Traffic environment for children and elderly as pedestrians and cyclists,” presented at the 18th ICTCT (International Cooperation on Theories and Concepts in Traffic Safety) Workshop in Helsinki, Finland on October 27th-28th 2005
- C20 Charlotta. Johansson, Per Gårder, Lars Leden, “Towards a safe environment for children and elderly as pedestrians and cyclists - A synthesis based on an analysis of video recordings of behaviour and police-reported crashes including in-depth studies of fatalities” Poster presentation at the International Conference on Traffic & Transport Psychology (ICTTP), 5-9 September 2004, Albert Hall, Nottingham, UK. Proceedings available at <http://www.psychology.nottingham.ac.uk/IAAPdiv13/>
- C19 Charlotta Johansson, Per Gårder, Lars Leden, “The Effect of Change of Code on Safety

- and Mobility for Children and Elderly as Pedestrians at Marked Crosswalks— A Case Study Comparing Sweden to Finland.” Presented at the 83<sup>rd</sup> Annual TRB Meeting as Paper 04-2659. Published in the 83<sup>rd</sup> Annual TRB Meeting Compendium of Papers CD-ROM, January 2004
- C18 Jianhe Du, John Ivan, Per Gårder, Lisa Aultman-Hall, “Public Perceptions of Traffic-Calming Device Installation,” 2003 Institute of Transportation Engineers Annual Meeting and Exhibit, August 2003 (paper ab03h432 paper #614 in Session 43)
- C17 Charlotta Johansson, Per Gårder, Lars Leden, “Towards Vision Zero at Zebra Crossings - A Case Study in Malmö, Sweden on Traffic Safety and Mobility for Children and Elderly,” published as paper number 03-2511 in the 82<sup>nd</sup> Annual TRB Meeting Compendium of Papers CD-ROM, January 2003 (Also published in revised form in *Transportation Research Records* No 1828, pp 67-74)
- C16 Dale Peabody, Per Garder, Gerry Audibert, William Thompson, Michael Redmond, and Michael S. Smith, “Evaluation of a Vehicle-Actuated Warning System for Stop-Controlled Intersections Having Limited Sight Distances,” International Conference on Rural Advanced Technology and Transportation Systems, Burlington, Vermont, August 25-28, 2001. Available at : <http://www.maine.gov/mdot/safety-programs/pdf/norridgewocksignsratt.pdf>
- C15 Per Gårder, “Long-Term Evaluation of the Gorham Roundabout.” the Canadian Society for Civil Engineering 30th Annual Conference, June 5-8, 2002, Montreal
- C14 Bhagwant Persaud, Richard Retting, Per Gårder, and Dominique Lord, “Safety Effect of Roundabout Conversions in the United States: Empirical Bayes Observational Before-After Study,” published as paper No. 01-0562 in the 80<sup>th</sup> Annual TRB Meeting Compendium of Papers CD-ROM, January 2001). (Also published in revised form in *Transportation Research Records* No. 1751, 2001, pp 1 –8)
- C13 Charlotta Johansson, Lars Leden, Kristin Nilsson, Ola Wilhelmsson (Luleå University of Technology, Sweden) and Per Gårder, “Towards a safe environment for children - a starting point,” ICTCT’s Annual Meeting, Kaiserslautern, Germany, October 30, 1999. The proceedings are available at <http://www.ictct.org/> under Workshops, Kaiserslautern pp. 77-106, 1999
- C12 Per Gårder, “Little Falls, Gorham—Reconstruction to a Modern Roundabout,” Published as Preprint 990349 at the 78<sup>th</sup> Annual TRB Meeting, January 10-14, 1999, (Also presented in revised form in *Transportation Research Records* No. 1658, pp 17 –24, August, 1999)
- C11 Bryan Pearce, Per Gårder, “Animation of Traffic Through Roundabouts—A Decision Making Tool,” *First International Conference on New Technologies for Decision Making in Civil Engineering*, in Montreal, October 11-13, 1998. Proceedings edited by Edmond T. Miresco, Vol. 2, pp 1429-1438, October 1998
- C10 Per Gårder, Lars Leden, and Uhro Pulkkinen, “Measuring the Safety Effect of Raised Bicycle Crossings Using a New Research Methodology,” Published as Preprint 981360 at the 77<sup>th</sup> Annual Meeting of TRB in January 1998. (Also published in revised form in *Transportation Research Records* No. 1636, pp 71-76)
- C9 Lars Leden, Per Gårder, and Urho Pulkkinen, “Quantitative Expert Judgement Models:

A New Tool to Estimate the Effect of Countermeasures,” *Proceedings ICTCT 97 Conference—International Cooperation on Theories and Concepts in Traffic Safety – 5-7 November 1997*. Published in Department Report, 14 pages, University of Lund, 1997

- C8 Per Gårder. “Rumble Strips or Not Along Wide Shoulders Designated for Bicycle Traffic.” Published as preprint 950231 at the 74<sup>th</sup> Annual Meeting of TRB in January 1995. (Also published in *Transportation Research Records* No. 1502, pp. 1-7)
- C7 Per Gårder & John Alexander. “Fatigue Related Accidents and Continuous Rumble Strips.” Published as Preprint 950132 at the 74<sup>th</sup> Annual Meeting of TRB in January 1995
- C6 Per Gårder. “Bicycle Accidents in Maine: An Analysis.” Published as Preprint 940328 at the 73<sup>rd</sup> Annual Meeting of TRB in January 1994. (Also published in revised form in *Transportation Research Records* No. 1438, pp. 34-41)
- C5 Lars Leden, Per Gårder & Torbjörn Thedéen. “Combining Results From Different Studies - Applied To Bicycle Safety.” Paper published as Preprint: *International Conference The Hague, The Netherlands 22-24 September 1993*. Strategic Highway Research Program (SHRP) and Traffic Safety on Two Continents organized by TRB (U.S. Transportation Research Board), VTI (Swedish Road and Traffic Research Institute), FERSI (Forum of European Road Safety Research Institutes), FEHRL (Forum of European national Highway Research Laboratories), and CROW (Center for Research and Contract Standardization in Civil and Traffic Engineering), September 1993
- C4 Per Gårder. “First Results of the Stress Project.” *Proceedings of the Prometheus Workshop held in London, England, Nov 28 & 29, 1990*, pp 113-118. Prometheus Office, c/o Daimler-Benz AG, Stuttgart, Germany, November 1990
- C3 Per Gårder. “Occurrence of Evasive Maneuvers Prior to Accidents-Data from North Carolina Accidents.” *Proceedings of the 2<sup>nd</sup> Workshop of the International Committee on Traffic Conflicts Techniques (ICTCT)*, Munich, Germany, November 23-24, 1989. Bulletin 86, 13 pages, Lund Institute of Technology, Lund, Sweden, 1990
- C2 Per Gårder. “Theory for Strong Validation”. Published in *Proceedings of the Workshop Traffic Conflicts and Other Intermediate Measures in Safety Evaluation*, 8-10:th of September 1986 in Budapest, 6 pages, Institute for Transport Sciences (KTI), Budapest, Hungary, 1986
- C1 Per Gårder. “Theory for ‘Strong’ Validation, Application to Swedish Results”. Published in *Proceedings from Evaluation 85: International Meeting on the Evaluation of Local Traffic Safety Measures*, 20-23 May, 1985 in Paris. Part 2, pp 344-351, O.N.S.E.R, Arcueil, France, 1985

#### Other Published Reports and Papers—Since 2000

- H51 John N. Ivan (University of Connecticut), Per E. Garder, and Adel W. Sadek (University at Buffalo), *Differences in Gap Acceptance of Elderly Drivers and the Impact on Traffic Simulation Modeling*, Final Report: The New England University Transportation Center Report UCNR19-10, September 2009
- H50 Nathan P. Belz and Per Erik Garder, *INTEGRATION COMPONENT OF THE ITS DEPLOYMENT PROJECT—Statewide Deployment and Integration of Dynamic Message Signs, Variable Speed Limit Signs, and Overheight Vehicle Detection Systems*,

- Final report submitted to Maine Department of Transportation, May 2008
- H49 Per Gårder, *Student Driving Skills and Safety Record*, Final Report: The New England University Transportation Center Report UMEE 19-18, July 2008
- H48 Per Gårder, *Traffic Conflict Studies at Camden Hills State Park Entrances*—Study for Maine Department of Transportation, Transportation Research Division, Technical Report 06-2, September 2007 also available at <http://mainegov-images.informe.org/mdot/transportation-research/pdf/report0602t.pdf>
- H47 John N. Ivan, Per E. Garder, Sumit Bindra, B. Thomas Jonsson, Hyeon-Shic Shin, Zuxuan Deng, *Network-Based Highway Crash Prediction Using Geographic Information Systems*, The New England Transportation Consortium, NETCR67 Project No. 04-5, June 2007
- H46 Per Gårder, *Traffic Safety Studies Before and After Introduction of Red-light Running Photo Enforcement in Lewiston and Auburn, Maine*, Draft Report accepted by FHWA and Maine Department of Transportation March 2006
- H45 Per Gårder, *Traffic Conflict Studies Before and After Introduction of Red-Light Running Photo Enforcement in Maine*. Final Report: The New England University Transportation Center Report UMER 17-10, August, 2006
- H44 Per Gårder, Gerry Audibert and Michael Davies, *Safety Effect of Continuous Shoulder Rumble Strips (CSRS) on Rural Sections of Maine Interstate and Turnpike*, FHWA and Maine DOT, DRAFT accepted January 2006
- H43 *Information Technology Systems for Use in Incident Management and Work Zone Safety*, Connecticut Academy of Science and Engineering, August 2006 (Edited by Richard H. Strauss, Executive Director)
- H42 John N. Ivan, Per E. Garder, Zuxuan Deng and Chen Zhang, *The Effect of Segment Characteristics on the Severity of Head-On Crashes on Two-Lane Rural Highways*, United States Department of Transportation, Region I University Transportation Center (Project UCNR15-5) Final Report, January, 2006
- H41 Per Gårder, “Transportation CAD Laboratory—an Education Project,” Final Report to the New England University Transportation Center (Project UMEE16-9), June 2005
- H40 Per Gårder, “Traffic Signal Safety—Analysis of Red-Light Running in Maine,” Technical Report ME02-1, Maine Department of Transportation, May 2004
- H39 Per Gårder, “Traffic Signal Safety Strategies—Analysis of Red-Light Running in Maine,” Final Report to the New England University Transportation Center (Project UMER14-6), May 24, 2004
- H38 Per Gårder and Nicolas Bosonetto, “Quantifying Roadside Rest Area Usage.” the New England Transportation Consortium, Project 99-4, NETCR38, November 2002. Also available electronically through <http://www.netc.uconn.edu>
- H37 Per Gårder and Bryan Pearce, Web Version of the Roundabout Simulation Model, New England University Transportation Center, July 2002
- H36 Per Gårder, John Ivan and Jianhe Du “Traffic Calming of State Highways: Application New England,” New England University Transportation Center, July 2002

- H35 Per Gårder, “Pedestrian Safety in Maine,” Final Report, Report ME00-2, Maine Department of Transportation, May 2002
- H34 John Ivan, Per Gårder and Sylvia Zajac, “Finding Strategies to Improve Pedestrian Safety in Rural Areas,” Final Report UCNR 12-7 United States Department of Transportation, Region I University Transportation Center, October 2001. Also available at <http://web.mit.edu/ctl/www/research/UCNR12-7%20FINAL%20REPORT.pdf>
- H33 Per Gårder & Lars Leden, “Strategic R & D Program for Safe Mobility: Promoting safe walking and cycling,” Report no 14 from the SRS project. VTT Communities and Infrastructure. Research Report 568/2000, Espo, Finland, 2000
- H32 Bryan Pearce, Per Gårder, and Travis Folsom, “A Roundabout Animation,” The New England University Transportation Center report, 50 pages, June 2000 (NTIS Report PB2000-/06030; for sale by US Department of Commerce, National Technical Information Services, Springfield, VA 22161)
- H31 “Roundabouts,” Status Report, Volume 35, No. 5, May 13, 2000, the Insurance Institute for Highway safety, pp1-3, 6. Also available on internet at address <http://www.highwaysafety.org/srpdfs/sr3505.pdf> (I contributed to the text, but I am not an official author—there is none)
- H30 Bhagwant Persaud, Richard Retting, Per Garder, Dominique Lord, “Crash Reductions Following Installation of Roundabouts in the United States,” published by the Insurance Institute for Highway Safety, May 2000

### Documentation of Special Recognitions/Awards

- The 2002 *D. Grant Mickle Award* of the Transportation Research Board, Washington DC
- Winner of the *Best Paper Award* of the TRB Committee on Operational Effects of Geometrics for 2001.
- Winner of the *Best Paper Award* of the TRB Committee on Operational Effects of Geometrics for 1999.
- The Swedish Institute of Transportation Engineers’ Annual Transportation Excellence Award of 1990 (“*Traffic Planner of the Year*”).
- *The Swedish Institute of Transportation Engineers’ 1989 Travel Award*
- *The 1980 Traffic Safety Award* by KnislingeVerken and the Swedish Road Federation

### Professional Organization Memberships

- State of Maine Board of Registration, March 24, 2005—Professional Engineer in Maine Registration number 10843
- Registered Professional Engineer in Sweden since 1975
- Member of the Editorial Advisory Board of *Accident Analysis & Prevention* (published by Elsevier since 2004, before that by Pergamon Press) since November 1995
- Graduate Faculty Member of the University of Maine since 1994. Current term expires June 30, 2014

- Member on the New England University Transportation Center Policy Committee since 1995
- Member of the Maine Department of Transportation Research Advisory Board since September 1998
- Member of the Swedish Institute of Transportation Engineers since 1977
- Member of the Maine Chapter of the Institute of Transportation Engineers since 1994
- Member of the Maine Bicycle Council since May 1993
- Maine Local Roads Advisory Board Member since December 1995
- Transportation Research Board Representative of the University of Maine since September 1995. Current term expires August 31, 2010.
- Chi Epsilon-faculty-member, initiated December 12, 1996
- Member of the Francis Crowe Society, inducted November 17, 2000

### **International, National, and Regional Meetings Attended Since 1992**

- May 12, 2009: Healthy Community Conference in Freeport, Maine. Walking and biking as part of community planning. Featured speakers included Todd Littman
- March 23, 2009: Maine Department of Transportation Research Advisory Board meeting in Augusta
- March 3, 2009: New England University Transportation Center Policy Committee Meeting
- December 4, 2008: The 58<sup>th</sup> Maine Transportation Conference in Augusta, Maine. Moderated morning session, student paper presentations
- January 23, 2008: Transportation Safety Planning in Maine. Online/telephone conference lead by Jim Thorne, FHWA Resource Center
- December 6, 2007: The 57<sup>th</sup> Maine Transportation Conference in Augusta, Maine. Moderated morning session, student paper presentations
- May 17, 2007: Maine Section ASCE Annual Meeting, Brewer, Maine
- April 27, 2007: Maine Department of Transportation Research Advisory Board Second Round meeting in Augusta
- April 9, 2007: New England University Transportation Center Policy Committee Meeting in Cambridge, Massachusetts
- April 6, 2007: Maine Department of Transportation Research Advisory Board meeting in Augusta
- March 13, 2007: Co-presented workshop in “Network-Based Highway Crash Prediction Using Geographic Information System” to Vermont, New Hampshire and Maine Department of Transportation personnel (about 15 participants), Augusta Maine
- December 7, 2006: The 56<sup>th</sup> Maine Transportation Conference in Augusta, Maine. Moderated morning session, student paper presentations
- November 9, 2006: Maine Chapter, Institute of Transportation Engineers 2006 Fall Meeting, Augusta, Maine
- November 1, 2006: New England University Transportation Center Policy Committee

Meeting in Cambridge, Massachusetts

- April 25, 2006: Maine Chapter, Institute of Transportation Engineers 2006 Spring Meeting, the Woolie Room, Doris Twitchell-Allen Center, Orono, Maine: Chaired student work presentations and presented research findings
- April 20, 2006: Maine Chapter ASCE meeting, Lewiston Maine. Presented Red-Light-Running project
- February 16, 2006: Maine Section ASCE Meeting, Bangor, Maine
- January 22-26, 2006: TRB's 85<sup>th</sup> Annual Meeting in Washington, D.C.
- Cause, Effect and Intervention: Present and Future Directions in Road Safety Research, Workshop in connection to the 85<sup>th</sup> Annual TRB Meeting in Washington D.C.
- December 1, 2005: 55<sup>th</sup> Annual Maine Transportation Conference in Augusta, Maine. Moderated morning session, student paper presentations
- November 10, 2005: Maine Chapter, Institute of Transportation Engineers 2005 Fall Meeting, Augusta, Maine
- October 20, 2005: Maine Department of Transportation Roundabout Workshop, Augusta, Maine
- May 16, 2005: University Transportation Policy Committee Meeting in Cambridge, Massachusetts
- March 4, 2005: Maine Department of Transportation Research Advisory Board meeting in Augusta
- January 28, 2005: Information Technology Systems for Use in Incident Management and Work Zone Safety—kickoff meeting, Connecticut DOT/Connecticut Academy of Sciences, teleconference meeting
- January 20, 2005: Joint ASCE/ITE Meeting in Bangor: Highway Safety in Maine
- December 2, 2004: The 54<sup>th</sup> Annual Maine Transportation Conference in Augusta, Maine. Moderator of the Student Paper Competition
- June 7, 2004: University Transportation Policy Committee Meeting in Cambridge, Massachusetts
- April 29, 2004: Maine Section ITE Meeting, the Woolie Room, Doris Twitchell-Allen Center, Orono: UMaine transportation research and campus plan
- April 21, 2004: Tri-State Transportation Safety Conference, Concord, New Hampshire
- May 5, 2003: University Transportation Policy Committee Meeting in Cambridge, Massachusetts
- April 29, 2003: Maine Bicycle Council meeting in Kennebunk
- April 28, 2003: Maine Section ITE Meeting, Miller's restaurant, Bangor: Arial photography and photogrammetry using digital techniques and Bangor development
- April 17, 2003: Maine Section ASCE Meeting, Orono: Transit Oriented Development
- March 5, 2003: Maine Department of Transportation Research Advisory Council meeting to select research studies that will address all areas of transportation at a strategic level, Camp Mechewana, Winthrop, Maine
- January 12-14, 2003: TRB's 82<sup>nd</sup> Annual Meeting in Washington, D.C.

- January 13, 2003: The Editorial Advisory Board of Accident Analysis and Prevention meeting in Washington D.C.
- December 10, 2002: Smart Growth vs. Sprawl, Society for Marketing Professional Services, Portland Regency Hotel, Portland, Maine
- December 5, 2002: The 52<sup>nd</sup> Annual Maine Transportation Conference in Augusta, Maine (moderator of the Student Paper Competition)
- November 20-21, 2002: National Summit to Prevent Drowsy Driving, National Academy of Sciences, Washington, DC
- June 5-8, 2002: The 30<sup>th</sup> Annual Canadian Society for Civil Engineering Meeting in Montreal, Quebec, including the 4<sup>th</sup> Transportation Specialty Conference
- May 28, 2002: Winter Maintenance of Cycleways, Anna Bergström's dissertation, Stockholm, Sweden
- May 21, 2002: The New England University Transportation Center Policy Committee Meeting, Cambridge, Massachusetts
- January 14-16, 2002: The 81<sup>st</sup> TRB Annual Meeting in Washington, D.C.
- June 7, 2001: The Annual Meeting of the New England University Transportation Center, Cambridge, Massachusetts
- April 11, 2001: The Annual Research Meeting of the New England Transportation Consortium, Concord, New Hampshire
- March 7, 2001: Maine Department of Transportation Research Council Meeting, Augusta, Maine
- March 1, 2001: Traffic Safety and Children. Workshop at the Department of Psychology, University of Lund, Sweden
- December 7, 2000: The 50<sup>th</sup> Annual Maine Transportation Conference in Augusta, Maine
- September 21, 2000: The Federal Highway Administration's Intersection Safety Workshop hosted by The Northeast Safety Team, Sturbridge, Massachusetts
- September 14, 2000: Keene Bypass Workshop, Roundtable Discussion with NH DOT about feasibility of Roundabouts along Keene bypass, Keene Public Library, Keene, New Hampshire (and Sept 12, 2000: Teleconference with Concerned Cheshire Citizens)
- June 28, 2000: Transportation Safety at Lund Institute of Technology, Lund Sweden. Meetings with Professor Christer Hyden (Speed Limiters), Ms. Helena Drottenborg (Aesthetics and Safety in Traffic Environments), Mr. Mohsen Tolivat (Pedestrian and Motorist Conflict Points), and Professor Emeritus Gösta Lindhagen (Personalities and transportation professionals)
- May 20, 2000: the Midcoast Regional Bicycle Conference, Camden, Maine (Sponsored by Maine DoT and the Camden-Rockport Pathways Committee)
- April 7, 2000: FHWA's Pedestrian and University Forum, Crystal City Hilton, Arlington, Virginia (invited, all expenses paid by Lockheed Martin, Oak Ridge National Laboratory.)
- January 18 –19, 2000: Train the Trainer seminar for Pedestrian Safety Road Shows, Bangor, ME; and a Roadshow in Bangor on January 18 (I organized and chaired).
- January 10-14, 2000: TRB's Annual Meeting in Washington, D.C.
- January 11, 2000: The Editorial Advisory Board of the Accident Analysis and Prevention meeting in Washington D.C.

- December 9, 1999: The 49<sup>th</sup> Annual Maine Transportation Conference in Augusta, Maine (Introduced the Student paper presentations)
- June 24 & 25, 1999: Bicycle/Pedestrian Facilities Planning and Design Course, Augusta, Maine
- April 13, 1999: The 1999 Maine Transportation Safety Conference, Bangor Civic Center
- March 26, 1999: Second Biennial International Meeting of the Risk Assessment and Policy Association (RAPA), Alexandria, Virginia,
- January 12<sup>th</sup> 1999: The Editorial Advisory Board of the Accident Analysis and Prevention meeting in Washington D.C.
- January 1999: TRB's Annual Meeting in Washington, D.C.
- December 17, 1998: State of Maine Intelligent Transportation Systems Meeting—First Statewide forum on ITS
- December 10, 1998: 48<sup>th</sup> Annual Maine Transportation Conference in Augusta, Maine
- October 11-13, 1998: First International Conference on New Technologies for Decision Making in Civil Engineering, in Montreal, Quebec,
- August 20, 1998: Continuous Shoulder Rumble Strips, Seminar in Linköping, Sweden (invited, all expenses paid)
- January 12<sup>th</sup> 1998: The Editorial Advisory Board of the Accident Analysis and Prevention meeting in Washington D.C.
- January 1998: TRB's Annual Meeting in Washington, D.C.
- December 11, 1997: 47<sup>th</sup> Annual Maine Transportation Conference in Augusta, Maine
- October 16, 1997: Maine Chapter of Transportation Engineers' Fall Meeting in Bangor, Maine
- October 6-7, 1997, NVF conference in Helsingør, Denmark. (Presented a paper on roundabouts)
- March 28, 1997: Intelligent Transportation Systems Symposium, University of Southern Maine, Portland, Maine
- December 3, 1996: 46<sup>th</sup> Annual Maine Transportation Conference in Augusta, Maine.
- May 28, 1996: International Forum on Sleeplessness and Crashes '96. The Hilton Hotel, Washington, DC (presentation)
- December 7, 1995: 45<sup>th</sup> Annual Maine Transportation Conference in Augusta, Maine. (Part of organizing committee)
- September 19, 1995: National Sleep Foundation: Drive Alert...Arrive Alert Consensus Meeting on CSRS, Washington, D.C. (presentation)
- August 15, 1995: Rural Intelligent Transportation Systems. New England Workshop, Senator Inn, Augusta, Maine
- April 30, 1995: Maine Chapter of Transportation Engineers' Spring Meeting (topic: Maine Turnpike) in Portland, Maine
- January 23-25, 1995: Committee on Bicycling and Bicycle Facilities (A3B07) and Committee on Methodology for Evaluating Highway Improvements (A3A12) at TRB's Annual Meeting in Washington, DC [and numerous TRB sessions and committee meetings as a 'passive' listener]
- December 8, 1994: 44<sup>th</sup> Annual Maine Transportation Conference in Augusta, Maine.

- Chaired afternoon session on transportation planning
- October 6, 1994: Maine Chapter of Transportation Engineers' Fall Meeting (on Intermodal Facilities) in Bangor, Maine
  - October 4, 1994: "Getting There Without a Car." Workshop held in Orono, Maine. Organized by the Bureau of Parks and Recreation, Maine Department of Conservation
  - August 24, 1994: American Association of Motor Vehicle Administrators' (AAMVA) Annual Meeting in Denver, Colorado
  - June 17, 1994: 2<sup>nd</sup> Annual Transportation Workshop at GPCOG in Portland, Maine. "The Land Use and Transportation Connection" (covering Neo-Traditional Design, Greenways, Land Use, and Traffic Calming Techniques)
  - January 12, 1994: Committee on Bicycling and Bicycle Facilities (A3B07) at TRB's Annual Meeting in Washington, DC [and numerous TRB sessions and committee meetings as a 'passive' listener]
  - December 9, 1993: The 43<sup>rd</sup> Annual Maine Transportation Conference in Augusta, Maine
  - December 3, 1992: The 42<sup>nd</sup> Annual Maine Transportation Conference in Augusta, Maine.
  - October 6, 1992: Maine Chapter of Transportation Engineers' Fall Meeting (on Traffic Signaling Techniques) in Augusta, Maine
  - June 29 - July 3, 1992: The Third World Conference on Transportation, Lyon, France
  - May 20, 1992: Education Committee Meeting of the Swedish Institute of Transportation Engineers (Chaired)
  - May 15, 1992: Future Technology. Seminar organized by Svenska Väg- och Vattenbyggnads Riksförbundet with David Herman, CEO of SAAB and former head of General Motors European Division
  - May 14, 1992: Pro-Gen Meeting within Prometheus in Stockholm, Sweden
  - April 22, 1992: NVF (Nordiska Vägtekniska Förbundet) Committee (Utskott) 22: Geometric Design of Roads and Intersections in Linköping, Sweden
  - March 25, 1992: Swedish Institute of Transportation Engineers' Seminar on "European Union and Transportation", Stockholm, Sweden. I organized and chaired this meeting
  - March 17, 1992: Pro-Gen Meeting within Prometheus in Stockholm, Sweden

### **Documentation of Recent Funded Research/Training Grants**

As the Principal Investigator (P.I.) of research, I have through August 2009 brought in a total of \$1,130,027 in external funds to the University of Maine. This amount excludes matching funds. It also excludes projects I have participated in as a co-investigator where I was not the P.I. And, finally, in the cases where the research has been in cooperation with another institution, it only includes the funds that have been going to the University of Maine.

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"UMaine Graduate Fellowship" Proposal submitted to the New England UTC Year 22.  
Amount requested: \$15,000. Awarded: \$15,000 (federal funds) in August 2009

"Roundabout Design and Elderly Drivers." Proposal submitted to the New England UTC.  
Amount requested: \$94,269. Awarded: \$94,269 (federal funds) in May 2009

"Institutional Memories of Road Design." Proposal submitted to the New England UTC.  
Amount requested: \$31,711. Awarded: \$31,711 (federal funds) in May 2009

- “UMaine Graduate Fellowship” Proposal submitted to the New England UTC. Amount requested: \$28,800. Awarded: \$28,800 (federal funds) in May 2009
- “Road Salt Risk Assessment” Proposal to Maine DOT. Garder as Co-PI together with Jonathan Rubin. Total amount requested: \$87,039. Awarded \$87,039 in September 2008. My share: \$14,480
- “Clear Roads’ Safety Effect on Elderly Drivers.” Pre-proposal submitted to the New England UTC in February 2007. Final proposal submitted in July 2008. Amount requested: \$63,471. Awarded: \$63,471 (federal funds) in July 2008
- “Evaluation of Maine Deployment of Dynamic Message Signs and their Effect on Elderly Drivers,” as subcontract through University of Massachusetts. Proposal submitted to the New England UTC. Amount requested: \$30,000. Awarded: \$26,000 (federal funds) in November 2006
- “Differences in Gap Acceptance of Elderly Drivers and the Impact on Traffic Simulation Modeling” as subcontract through University of Connecticut (John N. Ivan). Proposal submitted to the New England UTC. Amount requested: \$27,998. Awarded: \$27,740 (federal funds) in November 2006
- “Student Driving Skills and Safety Record.” Education proposal submitted to the New England UTC. Amount requested: \$ 18,788. Awarded: \$18,788 (federal funds) in November 2006
- “Statewide Deployment and Integration of Dynamic Message Signs.” Amount requested: \$84,269 in May 2006 from Maine DOT. Awarded: \$84,269 in September 2006
- “Practicable Calibration Procedures to Enhance the Accuracy of Analytical and Micro-Simulation Software for Modern Four-Legged Single-Lane Roundabouts” as sub-consultant to Prof. Adel W. Sadek, University of Vermont, Burlington, with final grant from NETC. Amount requested: \$10,000 Awarded: \$10,000 in November 2005
- “Safety Effectiveness of Continuous Shoulder Rumble Strips.” Proposal to the Federal Highway Administration (Maine office). Amount requested: \$3,914. Awarded \$3,914 in April 2005
- “Conflict Studies at the Camden Hills Park Entrance” Proposal to Maine Department of Transportation September 2004. Amount requested: \$6,000. Awarded: \$6,000 in October 2004
- “Traffic Safety Studies Before and After Introduction of Red-light Running Photo Enforcement in Lewiston and Auburn, Maine” Proposal to Maine Department of Transportation July 2004. Amount requested: \$11,527. Awarded: \$11,527 in October 2004
- “Traffic Conflict Studies Before and After Introduction of Red-light Running Photo Enforcement in Maine—UMER17-10.” Proposal submitted to the New England UTC. Amount requested: \$40,963. Awarded: \$40,963 (federal funds) in August 2004 and August 2005
- “Network-Based Highway Crash Prediction Using Geographic Information Systems” Proposal to NETC with me as subcontractor to John Ivan, University of Connecticut. Amount requested (for UMaine): \$16,400 for two years starting August 2004. Awarded: \$16,400 in September 2004
- Transportation CAD-Laboratory. Proposal to UTC New England. Amount requested: \$25,500. Awarded: \$25,500 (federal funds) on May 5, 2003
- The Effect of Segment Characteristics on the Severity of Head-on Crashes on Two-Lane

Rural Highways. Proposal submitted together with John Ivan, University of Connecticut, to the New England University Transportation Center Program.. Total amount requested through the University of Connecticut: \$64,999. Awarded: \$57,250 (federal funds) on May 21, 2002. My share: \$25,500

Traffic Signal Safety Strategies. Proposal to UTC New England. Amount requested: \$60,000. Awarded: \$60,000 (federal funds) on June 7, 2001

Safety at Traffic Signals. Proposal to Maine Department of Transportation for Amount requested: \$30,000. Awarded: \$30,000 in May 2001. (This project was merged into the above project titled Traffic Signal Safety Strategies, and used as part of the required non-federal match.)

Traffic Calming of State Highways. Proposal submitted together with John Ivan, University of Connecticut, to the New England University Transportation Center Program in February 2000. Amount requested in proposal: \$70,000. Awarded: \$69,000 (\$44,000 to UMaine and \$25,000 to UConn) of federal funds for 2000/2001

Web Version of the Roundabout Simulation Model. Proposal submitted together with Bryan Pearce (University of Maine) to the New England University Transportation Center Program in February 2000. Amount requested: \$25,257. Awarded: \$27,000 (federal funds) for 2000/2001

Finding Strategies to Improve Pedestrian Safety in Rural Areas. Proposal submitted together with John Ivan, University of Connecticut, to the New England University Transportation Center Program in April 1999. Amount requested: \$60,000. Amount awarded: \$60,000 (federal funds) (\$33,000 to UConn and \$27,000 to University of Maine) for September 1, 1999 – August 31, 2000

Pedestrian Safety. Problem statement submitted to Maine DOT in October 1998. Amount proposed in Stage 1 \$20,000. Stage 2 proposal for \$43,915 submitted in May 1999. Amount awarded: \$43,915 for period July 1, 1999 – March 31, 2001. \$2,700 added for additional work until June 2002

Quantifying Roadside Rest Area Usage. Submitted to NETC, New England Transportation Consortium in October 1998. Amount requested: \$44, 857. Amount awarded: \$44, 857 for period September 1, 1999 – February 28, 2001