

CURRICULUM VITAE

DONALD L. FISHER

**PROFESSOR (UMASS AMHERST)
PROFESSIONAL TECHNICAL ADVISOR (VOLPE)**

OFFICE ADDRESS

Department of Mechanical and Industrial Engineering
Human Performance Laboratory
University of Massachusetts
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EDUCATION

The University of Michigan, Ph.D., Psychology 1983, Major Area: Mathematical Psychology
Harvard University, Ed.M., Education 1973, Major Area: Child Development and Social Policy
Bowdoin College, B.A., Philosophy 1971, Major Areas: Philosophy, Chemistry

HONORS AND AWARDS

Distinguished Faculty Lecture, University of Massachusetts Amherst, TBD
Distinguished Service Award, Phi Kappa Phi, University of Massachusetts Amherst, April, 2014
Volpe National Transportation Systems Center, Cambridge, MA, Faculty Fellow, June 2013
Liberty Mutual Best Paper Award, *Ergonomics* 2009, Juried by Editors of *Ergonomics* (Pradhan A K, Pollatsek A, Knodler M and Fisher D L, Can younger drivers be trained to scan for information that will reduce their risk in roadway traffic scenarios that are hard to identify as hazardous? *Ergonomics*, 52, 657 – 673).
University of Massachusetts Amherst Foundation Board Award for Outstanding Achievement, 2008.
Outstanding Advisor of the Year, Department of Mechanical and Industrial Engineering, University of Massachusetts at Amherst, 2007 – 2008.
Community Service Learning Fellow, University of Massachusetts at Amherst, 2006 –

2007.
Outstanding Senior Faculty Award, College of Engineering, University of Massachusetts, 2000
Minority Engineering Program Recognition Award, Minority Engineering Program, College of Engineering, University of Massachusetts, 1997
Outstanding Advisor Service Award, College of Engineering and Joint Student Engineering Societies, University of Massachusetts, 1996
Outstanding Junior Faculty Award, College of Engineering, University of Massachusetts, 1986
Dow Outstanding Young Faculty Award, American Society for Engineering Education, 1985
General University Fellowship, The University of Michigan, 1976-1977
B.A., magna cum laude, Bowdoin College, 1971.

STUDENT AWARDS

Gautam Divekar. (October 2015). Stephanie Binder Young Professional Award. Human Factors and Ergonomics Society.
Radhameris Gómez. (June 2013). Fulbright Scholar for 2013-2014 for Predoctoral Research in Spain through Fulbright España.
Radhameris Gómez. (September 2013). Local Graduate Scholarship Winner, WTS-Rhode Island chapter.
JingYi Zhang (October 2012). Human Factors and Ergonomics Society 56th Annual Meeting, Safety Division, Best Student Paper Award, Boston, MA.
Radhameris Gómez (November 2011). New England University Transportation Center Outstanding Student of the Year, Boston, MA.
Radhameris Gómez. (October 2011). Volpe National Transportation Systems Center Research Award, New England Human Factors and Ergonomics Society, Boston, MA.
Radhameris Gómez. (June 2011). Eno Transportation Foundation, Leadership Development Fellow, Washington, DC.
Radhameris Gómez (June 2011). Thomas E. Desjardins Memorial Scholarship Winner. Institute of Transportation Engineers, New England Chapter.
Thalia Taylor. (June 2011). Honda Outstanding Student Paper Award, Driving Assessment, Lake Tahoe, CA.
Hasmik Mehranian. (June 2010). 2010 Best Paper Award for 3rd International Conference on Educational Data Mining - June 11 - 13, 2010 - Pittsburg, PA. Effort-based Tutoring: An Empirical Approach to Intelligent Tutoring. Arroyo, I., Mehranian, H., Woolf, B
Matthew Romoser. (June 2005). Honda Outstanding Student Paper Award, Driving Assessment. Rockport, ME.

RESEARCH APPOINTMENTS

Volpe National Transportation Systems Center, Cambridge, MA, 9-15 – to present. Professional Technical Advisor.
Institute for the Study of Human Capabilities, Indiana University, Indiana, 1-91 to 7-91. Initiated research in human factors engineering; helped develop human factors

program.

Mental Health Research Institute, The University of Michigan, Ann Michigan, 9-79 to 9-82. Helped plan and conduct a study of the medical manpower demands of endogenously depressed patients.

Bell Telephone Laboratories, Murray Hill, New Jersey, 6-75 to 1-76. Conducted studies of the readability of technical documents and service manuals.

National Institute of Education, Washington, D.C., 9-73 to 9-74. Conducted a survey of various measures of functional literacy.

Department of Psychiatry, Hartford Hospital, Hartford, Connecticut, Summer 1971. Helped conduct a study of the effect of lithium on manic-depressive psychosis.

TEACHING APPOINTMENTS

University of Massachusetts Amherst, Visiting Assistant, Assistant, Associate and Full Professor, 1982 - present; Department of Mechanical and Industrial Engineering

Indiana University, Visiting Associate Professor, winter/spring 1991, Department of Psychology

The University of Michigan, Graduate Student Teaching Assistant, fall 1977 to spring 1982 (Psychology as a Natural Science).

Harvard University, Graduate Student Teaching Assistant, fall 1974 (Experimental Design).

Bowdoin College, Tutor, fall 1970 and winter 1971 (Chemistry).

ADMINISTRATIVE APPOINTMENTS

University of Massachusetts Amherst, Department Head, July 2009 - present; Department of Mechanical and Industrial Engineering

EDITORIAL BOARDS

Human Factors (1989 -), Associate Editor (2015 -)

IIE Transactions on Occupational Ergonomics and Human Factors (2011 -)

Journal of Experimental Psychology: Applied (2000 – 2009)

Psychology and Aging (1999 - 2002)

JOURNAL REVIEWS

Accident Analysis and Prevention

Acta Psychologica

Cognitive Psychology

Computers & Operations Research

Ergonomics

Human Factors

IEEE Transactions: Systems, Man & Cybernetics

IEEE Transactions: Intelligent Vehicles

International Journal of Industrial Ergonomics

Journal of Applied Ergonomics

Journal of Biomechanics

Journal of Experimental Psychology: Applied

Journal of Experimental Psychology: Human Perception and Performance
Journal of Experimental Psychology: Learning, Memory and Cognition
Journal of Gerontology: Psychological Sciences
Journal of Industrial Ergonomics
Journal of Mathematical Psychology
Operations Research
Perception and Psychophysics
Psychology and Aging
Psychological Bulletin
Psychological Review
Psychonomic Bulletin & Review
Reading Research Quarterly
Spatial Vision
Transportation Research F
Transportation Research Record

FEDERAL COMMITTEES, PANELS, STUDY SECTIONS, AND WORKSHOPS

Federal Highway Administration, Automated Vehicle Symposium, Workshop Moderator, Human Factors Issues Associated with ‘Connected Automation’ Applications, San Francisco, July 2016.

Transportation Research Board, Workshop Co-Chair, Distributed and Cross Modal Simulation, Washington, DC, January 2016.

Transportation Research Board, Panel Speaker, Measurement of Novice Driver Behaviors, Washington DC, January 2016.

Transportation Research Board, Standing Committee On Simulation And Measurement Of Vehicle And Operator Performance, AND30, Co-Chair, December 15, 2015 – present; Member, April 15, 2004 – April 14, 2007,

Federal Highway Administration, Road Safety and Simulation Conference, Workshop Moderator, Virtual and Augmented Reality in Transportation Research, Orlando Florida, October 2015.

Institute of Medicine Committee on the Public Health Dimensions of Cognitive Aging, Invited Speaker, Driving and Cognitive Function, August 6, 2014.

Federal Highway Administration, Workshop, Utilizing Various Data Sources for Surface Transportation Human Factors Research, Moderator, November 6-7, 2013.

National Institutes of Health, Cognition and Perception, Guest Panel Member, October 2012.

National Transportation Safety Board, Distracted Driving, Panel member, Washington, DC, March 27, 2012

Transportation Research Board, Young Driver Subcommittee [ANB30(1)], January 2009 - present

National Highway Traffic Safety Administration, Office of Behavioral Safety Research. An outlook for the future. Panel on Inattentive Driving, Member, Bethesda, MD, April, 2008

National Highway Traffic Safety Administration, Office of Behavioral Safety Research. An outlook for the future. Panel on Younger Drivers, Member, Bethesda, MD, May, 2008

National Research Council, Institute of Medicine, Board on Child, Youth and Families, Committee on the Contributions from the Behavioral & Social Sciences in Reducing and Preventing Teen Motor Crashes, Member, December 2005 – January 2006.

National Academy of Sciences, Human Factors Committee, March 2001 – August 2006.
National Research Council, Committee on Future Directions for Aging, Outside Expert, November 1999

National Institutes of Health, Behavioral and Biobehavioral Processes 4 (Cognition and Perception), Member, 1999 - 2000

National Institutes of Health, Human Development and Aging Study Section 2, Member, 1998 - 1999

National Cancer Institute Program Project Review Panel Member, June 1997

NATIONAL AND INTERNATIONAL PANELS

Association for the Advancement of Automotive Medicine, Expert Panel On Distracted Driving, Member, Chicago, April 23-24, 2013 – March 31, 2014.

AAA Foundation for Traffic Safety, Measuring Cognitive Distraction in the Vehicle, Expert Panel Member, Washington, DC, October 5, 2012.

State Farm[®] Mutual Automobile Insurance Company and Childrens Hospital of Philadelphia, Youthful Driver Initiative, Expert Panel Member, September 2005 – February 2007.

CONGRESSIONAL BRIEFINGS

Preventing Crashes: Driver Safety through Human Factors Science, Congressional Science Briefing, Rayburn House Office Building, B-340 November 13, 2007 (Sponsored by the Federation for Behavioral, Psychological and Cognitive Sciences, the Human Factors and Ergonomics Society, and the American Psychological Association.)

SOCIETY AND PROFESSIONAL AFFILIATIONS

Factors and Ergonomics Society (1976 --)

Society for Mathematical Psychology (1976 – 1984)

Psychonomic Society (1976 – 1982)

INDUSTRY SHORT COURSES

Columbia House, "Occupational Ergonomics", Terre Haute, Indiana, 1992.

Precision Systems Incorporated, "Voice Recognition and Speech Generation: Human Factors Issues", St. Petersburg, Florida, 1996

WEBINARS

Engaged Driving Symposium, Association for Advancement of Automotive Medicine and State Farm, Reagan Building Rotunda, Washington, DC, Marching 31, 2014, <http://edi.capitolconnection.org/>

COURSES TAUGHT

Behavioral Decision Analysis (graduate)
Engineering Leadership, Innovation, Teaching and Entrepreneurship (undergraduate)
Human Factors and Ergonomics (undergraduate)
Human Factors and Ergonomics (graduate)
Industrial Engineering Capstone Design (undergraduate)
Probability and Statistics I (undergraduate)
Probability and Statistics II (undergraduate)
Probability and Statistics (graduate)
Psychology as a Natural Science (undergraduate)
Time and Motion Study (undergraduate)

PROFESSIONAL SERVICE

Co-Chair, AND30, Simulation And Measurement Of Vehicle And Operator Performance, Transportation Research Board, January 2016 –
Department Head, Department of Mechanical and Industrial Engineering, University of Massachusetts at Amherst, 2009 –
Transportation Research Board Committee on Simulation and Measurements of Vehicle and Operator Performance (AND30), January 2008 – March 2011
Graduate Program Director, Department of Mechanical and Industrial Engineering, University of Massachusetts at Amherst, 2007 - 2009
Area Coordinator, Industrial Engineering and Operations Research, Department of Mechanical and Industrial Engineering, University of Massachusetts, 2000 – 2005.
Graduate Program Director, Department of Mechanical and Industrial Engineering (Industrial Engineering and Operations Research, Manufacturing Engineering, Engineering Management), University of Massachusetts, 1996 -2000
Board Member Massachusetts, 1998 - 1999, ITS
Chair, Education Committee, ITS Massachusetts, 1997 - 1998
Undergraduate Program Director, Department of Industrial Engineering and Operations Research, 1990 - 1995
Steering Committee, Social Sciences Application Group, Operations Research Society of America, 1985
Chair, Visual Performance Technical Group, Human Factors Society, 1984-1985
Technical Program Chair, Visual Performance Technical Group, Human Factors Society, 28th Annual Meetings, San Antonio, October 1984
Technical Program Chair, New England Section of the American Society of Engineering Education, Annual Meetings, Fredericton, New Brunswick, October 1984
Vice Chair, Visual Performance Technical Group, Human Factors Society, 1983-1984

TRANSLATIONAL IMPACT

National Highway Traffic Safety Administration (2016). The hazard awareness and perception training program is shown to be the first driver education program ever to have an effect on novice teen male driver crashes.

State Farm Insurance (2012). The largest provider of automobile insurance in the country offers a web based training program (Road Aware) for novice drivers based on the

research we have undertaken in our laboratory.

National Highway Traffic Safety Administration (2011). Our training program for novice drivers is the first novice driver training program to be evaluated by NHTSA since the 1970s.

Arbella Insurance (2010). One of the largest insurance companies in New England develops a mobile laboratory, Distractology 101, which tours the high schools throughout New England, delivering training developed in our laboratory to novice drivers

State of Connecticut (2008). Our novice driver training program is adopted as a part of the parent component of the novice driver license permitting process.

U.S. Department of Transportation (2000). The 160 lane miles of the Central Artery/Tunnel project (the Big Dig), the largest civil engineering project in the world at the time, was modeled on our driving simulator, the first project of this size ever evaluated on a driving simulator before being built.

POSTDOCTORAL RESEARCH ASSOCIATES

Gabrielle Eriksson, 2016 – present. Joint University of Massachusetts Amherst Postdoctoral Associate.

Timothy Wright, 2015 – present. Joint University of Massachusetts Amherst – Liberty Mutual Research Institute for Safety Postdoctoral Associate.

Lisa Zhang, 2015 – present. Joint University of Massachusetts Amherst – Liberty Mutual Research Institute for Safety Postdoctoral Associate.

Siby Samuel, 2014- 2015. Currently Research Assistant Professor, University of Massachusetts Amherst.

Matthew Romoser, 2008 - 2009. Currently Assistant Professor, Western New England University.

Avinoam Borowsky, 2011-2013. Currently Assistant Professor, Ben Gurion University of the Negev, Israel.

Yusuke Yamani, 2013 -2014. Assistant Professor, Old Dominion University.

DOCTORAL STUDENTS SUPERVISED AND COMMITTEES CHAIRED

Gómez, Radhameris (Co-Chair with Mike Knodler, CEE). University of Massachusetts, CEE, experiments in progress.

Nicholas, Cheryl Ann. *The effect of interruptions on primary task performance in safety-critical environments*. University of Massachusetts, IEOR, June 2016

Samuel, Siby. *How much do in-vehicle tasks with swapping, switching and spillover effects interfere with drivers' ability to detect and respond to threats on the forward*

roadway? University of Massachusetts, IEOR, September 1, 2014.

Abd Malek Abdul Hamid. *Effect Of Total Awake Time On Drivers' Performance And Evaluation Of Training Interventions To Mitigate Effects Of Total Awake Time On Drivers' Performance.* University of Massachusetts, IEOR, May 2013.

Divekar, Gautam. *External-To-Vehicle Distractions: Dangerous Because Deceiving.* University of Massachusetts, IEOR, May 2013.

Muttart, Jeffrey. *Identifying Hazard Mitigation Behaviors That Lead To Differences In The Crash Risk Between Experienced And Novice Drivers.* University of Massachusetts, IEOR, May 2013.

Mehranian, Hasmik. *Novice Drivers – Development And Evaluation Of Training Program For Hazard Anticipation, Hazard Mitigation And Attention Maintenance Skills In Complex Driving Scenarios.* University of Massachusetts, IEOR, May 2013.

Pradhan, Anuj. *Risk Awareness And Perception And The Novice Driver: Development And Evaluation Of Training Interventions And Their Influence On Tactical And Strategic Visual Search Behavior.* University of Massachusetts, IEOR, September, 2009.

Romoser, Matthew. *Improving The Road Scanning Behavior Of Older Drivers Through The Use Of Situation-Based Learning Strategies.* University of Massachusetts, IEOR, September 2008.

Garay-Vega, Lisandra. (Co-Advisor with Michael Knodler, CEE). *Drivers Performance In Response To Sight-Limited And Multi-Threat Crash Scenarios At Mid-Block Crosswalks: An Evaluation Of Advance Yield Markings And Sign Prompts.* University of Massachusetts, CEE, May 2008.

DeRamus, Rosa. *The Effect Of Driver Age And Experience On Risk Assessment And Risk Prediction.* University of Massachusetts at Amherst, IEOR, May 2005.

Pabon-Gonzalez, Miriam. *Effects of Worker Anthropometry and Workplace Design Upon Shoulder Discomfort and Task Productivity.* University of Massachusetts, IEOR, February 2001.

Laurie, Nancy. *Development and Demonstration of a Tendon Adaptation Model to Aid in the Evaluation of Repetitive Jobs.* University of Massachusetts, IEOR, February 2001.

Szymkowiak, Andrea. *Selective Attention in Younger and Older Adults.* University of Massachusetts, IEOR, September 2000.

Katsikopoulos, Konstantinos. *Characterizing and Optimizing the Performance of Younger*

and Older Adults in Paired Associate Tasks: A Markov Modeling Approach. University of Massachusetts, IEOR, February, 1999.

Ranney, Thomas. *Models of visual scanning for homogeneous displays: A test of two underlying assumptions.* University of Massachusetts, IEOR, September, 1998.

Nusbaum, Eric. *Models of large scale visual search.* University of Massachusetts, IEOR, September, 1997.

Hughes, Stanley. *The perception of risk for nonlethal events and its relation to risk-taking behavior,* University of Massachusetts, IEOR, February 1993.

Young, Christopher B. *Some qualifications of the alphanumeric category effect.* University of Massachusetts, Department of Psychology, September 1988.

MASTERS COMMITTEES CHAIRED

Jared Young. University of Massachusetts, IEOR. Experiments in progress.

Roman, Luis. University of Massachusetts, IEOR. Experiments completed.

Demeyer, Tara. *The effects of the gender and perceived willingness of a teen passenger on a teen driver's safe driving behavior.* Experiments in progress

Duse-Anthony, Yawa. *Lexicographic models of traveler's rout choice decisions.* Experiments completed.

Krishnan, Akhilesh. *Evaluation of a Training Program (STRAP) Designed to Decrease Young Drivers Secondary Task Engagement in High Risk Scenarios.* University of Massachusetts, IEOR, September 2014.

Zhang, JingYi. *Evaluation of a training program designed to reduce hard braking and quick accelerations.* December 2014.

Seckin, Celik. *Evaluation of alternative touchpad arrangements and tactile anchors on typing speed and accuracy.* December 2012.

Gautam, Divekar. *The effect of age on the efficacy of dynamic message signs.* Amherst: University of Massachusetts, May 2011.

Shen, Yan. *Evaluation of eye tracking device application in error recovery by nursing student using human patient simulation.* February 2010.

Diete, Frank. *Evaluation of a simulator based, novice driver risk awareness training program.* Amherst: University of Massachusetts, September 2007.

Waraich, Bhupinder. *Evaluating alternative single destination, two lane exit signs with an*

- option through lane.* September 2006.
- Arya, Prinjay. *Mental Rotations Involving Oblique Angles – Imaginary Viewer Rotation Approach.* January, 2006.
- Narayanan, Vinod. *Evaluation of a PC-based risk recognition training program for novice drivers using an advanced fixed based driving simulator.* February 2005.
- Garay, Lisandra. *Effects of Driving Experience and Lighting Condition on Driving Performance.* June 2004.
- Kichhanagari, Reddy. *Airline terminal signs: Comparison of older and younger adults search strategies.* June 2004.
- Pradhan, Anuj. *Design, development and testing of a virtual world: The Central/Artery Tunnel (CA/T) project.* June 2004.
- Dutta, Arup. *Variable Message Signs: Models of drivers decision making under heavy cognitive load.* University of Massachusetts, January 2004.
- Chaparro, Nhora. *Optimizing the format of mile marker signs: Evaluation with an advanced, fixed base driving simulator.* September 2003.
- Mehranian, Hasmik. *Optimizing the format of airline terminal signs: Use of eye tracking data.* February 2003.
- Carpenter, Rick. *Factors affecting legibility distance in an advanced, fixed base driving simulator.* University of Massachusetts, September 2002.
- (Hester) Holton, Amy. *Advanced parking management systems: Models of driver decision making.* University of Massachusetts, May 1998.
- Zhang, Shuping. *Three dimensional DO NOT ENTER signs: Reducing wrong way entries.* University of Massachusetts, September 1997.
- Glaser, Robert. *Optimizing Remote Control Interface Designs.* University of Massachusetts, May 1996.
- Wallace, John. *Auditory localization response time.* University of Massachusetts, September 1996.
- Kozloski, Mike. *Models of cognitive slowing: The aging driver.* University of Massachusetts, January 1996.
- Pullen, Mike. *An optimal training theory: A paired-associate learning task.* University of Massachusetts, September 1995.

- Zuschlag, Mike. *Predicting computer menu learning with a feature-based cognitive model*. University of Massachusetts, September 1995.
- Wood, David. *Development of a model to predict localized muscle fatigue during maximal and submaximal work*. University of Massachusetts, IEOR, May 1994.
- Goulet, Ruth. *Optimizing the navigation of complex menu hierarchies*. University of Massachusetts, IEOR, September 1993.
- Airth, David. *Context effects in visual search: a connectionist account*. University of Massachusetts, IEOR, September 1991.
- Howard, Mindy. *Predicting fault diagnosis behavior*. University of Massachusetts, IEOR, May 1990.
- Workman, Daniel. *A fuzzy algorithm for computing target-distractor similarity*. University of Massachusetts, IEOR, May 1989.
- Preczewski, Stan. *The selection of alphanumeric code sequences*. University of Massachusetts, IEOR, May 1989.
- Tanner, Nancy S. *Selection of graphic symbols for visual displays: The FI model*. University of Massachusetts, IEOR, September 1988.
- Tan, Kay C. *Highlighting and search strategy considerations in computer-generated displays*. University of Massachusetts, IEOR, September 1987.
- Tengs, Tammy O. *The framing effect in medical decision making*. University of Massachusetts, IEOR, September 1987.

GRANTS, FELLOWSHIPS, MAJOR GIFTS (APPROVED, CURRENT AND COMPLETED)

- Epstein, Jeffrey, Peugh, J., Garner, A., Fisher, D.L. (Co-PI). National Institutes of Health (R01 HD084430-01A1). Improving ADHD Teen Driving by Targeting Visual Inattention to the Roadway. In process. \$429,520 to UMass Amherst.
- Samuel, S. (P.I.) & Fisher, D.L. State Farm Research Grant Work Order. Oculus-Rift based evaluation of Engaged Driver Training System (EDTS). State Farm Mutual Automobile Insurance Company. \$92,756. March 1, 2016 – February 28th, 2017.
- Samuel, S. (P.I.) & Fisher, D.L. State Farm Research Grant Work Order. Long Term Effectiveness of EDTS iPad-based Driver Training. State Farm Mutual Automobile Insurance Company. \$67,100. January 1, 2016 – June 30th, 2016.
- Fisher, D.L. (PI). State Farm Insurance Company. Gift. \$25,000. February 5, 2016.

- Samuel, S. (P.I.) & Fisher, D.L. State Farm Research Grant Work Order #1000145969. Development and Testing of an Engaged Driver Training System (EDTS). State Farm Mutual Automobile Insurance Company. \$98,004. January 1, 2015 – December 31st, 2015.
- Romoser, M. and Fisher, D. L. State Farm Insurance Company. Engaged Driver Training System (EDTS): Research and Development. \$98,919. May 1, 2014 – November 30, 2014.
- Zilberstein, S., Fisher, D. L. (Co-PI) and Goldman, C. National Science Foundation (1405550 RI: Medium). Computational Models, Interaction Mechanisms, and Planning Algorithms for Semi-Autonomous Systems. \$1,200,000. July 1, 2014 – June 30, 2018.
- Fisher, D. L., Knodler, M. and Zafian, T. New England University Transportation Center. Evaluating the Effect of Google Glass on Driver Distraction. \$124,938. June 1, 2014 – May 31, 2016.
- Allen, W., Romoser, M. and Fisher, D.L. National Institutes of Health (1 R43 AG46951-01). Mobile Older Driver Assessment and Training Simulator (MODATS). \$150,000. February 1, 2014 – January 31, 2015.
- Ozguner, U. (Director) and Fisher, D. (Key Faculty, among others). Department of Transportation (University Transportation Center, Tier 1; DTRT13-G-UTC47). Crash Imminent Safety University Transportation Center. \$2,771,440 (\$279,915 to UMass Amherst). October 1, 2013 – September 30, 2017.
- Chrysler, S. (Director), Abdel-Aty, M. (Ass. Director), M., Knodler (Ass. Director), M., Noyce, D. (Ass. Director) and Fisher, D. (Key Faculty, among others). Department of Transportation (University Transportation Center, Tier 1; DTRT13-G-UTC53). Safety research using simulation (SAFER-SIM). \$2,771,440 (\$555,520 to UMass Amherst). October 1, 2013 – September 30, 2017.
- Romoser, M., Knodler, M., Fisher, D.L., Paciulli, M. and Gao, S. New England University Transportation Center. ADHD Teen Driver Evaluation and Training Tool Development. \$60,000. October 1, 2013 – August 31, 2015.
- Knodler, M., Romoser, M. and Fisher, D.L. New England University Transportation Center. An Observational Evaluation of Safety and Operations Resulting from Driver Distraction. \$60,000. October 1, 2013 – September 30, 2014.
- Romoser, M. and Fisher, D. L. State Farm Insurance Company. Planning for the Engaged Driver Training System (EDTS). \$41,667. September 15, 2013 – November 30, 2013.
- Romoser, M., Knodler, M. and Fisher, D. L. New England University Transportation

- Center. Reducing Older Driver Crashes: Technology, Training and Livable Communities. \$60,000. September 1, 2012 – May 31, 2015.
- Knodler, M., Romoser, M., and Fisher, D. L. New England University Transportation Center. Evaluating the Effects of Integrated Training on Minimizing Driver Distraction. \$60,000. September 1, 2012 – August 31, 2015.
- Fisher, D. L., Zafian, T. and Romoser, R. New England University Transportation Center. Moving Map Displays: Using CTIL and Eye Tracking Technologies to Measure Distraction in Locomotive Cabs. \$60,000. September 1, 2012 – August 31, 2015.
- Fisher, D.L. and Romoser, M. National Highway Traffic Safety Administration. SuperRAPT: Field Evaluation of a PC-based Hazard Anticipation Program Over Time. \$29,274. June 1, 2012 – October 1, 2012.
- Petersen, S. L., Bhatia, S. R., Braun, B. S., Powers, S. I. and Fisher, D. L. National Institutes of Health (NIGMS, 1R25GM099649-01). Initiative for Maximizing Student Development. \$2,220,000. March 2012 – January 2017.
- Fisher, D. L. and Romoser, M. State Farm Insurance Company. Evaluation of Road Aware. \$231,477. October 2011 – December 2012.
- Staros, J, Fisher, D. L., Tyson, J. F., and Petersen, S. L. National Science Foundation. NEAGEP Summative Evaluation: Identifying Effective Strategies for Paving the Pathway to the Professoriate. \$149,929. June 2011 – May 2012.
- Fisher, D. L. (Principal Investigator) and Pollatsek, A. National Highway Traffic Safety Administration. Evaluation of the duration of the effectiveness of an attention maintenance training program on a driving simulator. \$125,640. 5/1/2011 – 8/1/2012.
- Fisher, D. L. (Principal Investigator). Arbella Insurance Group Charitable Foundation. Gift naming the Human Performance Laboratory. \$150,000. 1/1/2011 – 12/31/13.
- Fisher, D.L. (Principal Investigator), Rubin, K., Clarke, L., Ford, D., and Palmer, R. National Science Foundation (0965783). "Mentoring Transfer Students to Achieve the Next Level of Academic Success." \$600,000. 7/1/2010 – 6/30/2013.
- Fisher, D. L. (Principal Investigator) and Pollatsek, A. State Farm Mutual Automobile Insurance Company. "Evaluation of Hazard Anticipation Training Program on a Driving Simulator and in the Field". November 2009 – December 2010. \$148,500.
- Fisher, D. L. (Principal Investigator) and Collura, J. MassDOT. "Evaluation of the Effect of Alternative Stop Bar Distances and In-Roadway Signs on Vehicle-Pedestrian Conflicts at Marked Mid-block Crosswalks". \$127,901. August 2009 – January 2011.

- Henneman, P. and Fisher, D.L. (Co-PI). Baystate/UMASS Summer Student Scholar Program, the Collaborative Biomedical Research (CBR) program. “The Impact of Bar Code Reading in the Process of Verifying Patient Identification.” \$3,500 summer 2009.
- Fisher, D. L. (Principal Investigator) and Pollatsek, A. Arbella Insurance Group Charitable Foundation. “Arbella Cares (Curriculum for Advanced Roadway Education and Safety)”. \$122,500. April 2009 – March 2011.
- Fisher, D. L. (Principal Investigator) and Romoser, M. Mitsubishi Electric Research Labs. “User Interfaces: Audio Versus Visual Feedback (MERL III).” May 2009 – December 2010. \$50,000
- Fisher, D. L. (Principal Investigator, subcontract). National Highway Traffic Safety Administration grant to Virginia Tech Transportation Institute (subcontracts to UMass). “Human Factors Engineering Support for Vehicle Safety Research”. Indefinite quantity contract. Approved December 2008.
- Fisher, D. L. (Principal Investigator, subcontractor). Federal Highway System grant to Battelle Memorial Institute (subcontract to UMass Amherst). “Technical Support and Assistance for the Federal Highway Administration’s Human Centered Systems Team”. Indefinite quantity contract. Approved October 2008.
- Fisher, D. L. (Principal Investigator) and Pollatsek, A. National Highway Traffic Safety Administration (through Dunlap & Associates). “PC-Based Attention Maintenance Training”. \$100,011. August 2008 – April 2010.
- Gao, S., Fisher, D. L. (Co-Principal Investigator). New England University Transportation Center. “Adaptive Route Choice Modeling in Uncertain Traffic Networks with Real-Time Information”. \$75,464. September 2008 - August 2009.
- Fisher, D. L. (Principal Investigator) and Knodler, M. Mitsubishi Electric Research Labs. “User-paced versus system-paced voice user interfaces (MERL II)”. \$50,000. May 2008 – December 2011.
- Knodler, Michael A. Jr., (Principal Investigator) and Donald Fisher. University of Massachusetts Transportation Center. “Development and Evaluation of an Attention Maintenance Training Program”. \$74,965. July 2008 to June 2009.
- Fisher, D. L. (Principal Investigator) and Pollatsek, A. “Newly-licensed Driver Crashes: Causes and Remediation”. National Institutes of Health (1R01HD057153-01). \$913,000. October 2007 – September 2012.
- Woolf, B. P., Barto, A. G., Fisher, D. L. (Co-Principal Investigator) and Arroyo, I.M. National Science Foundation (HCC: Collaborative Research; award no. 0705883).

“Affective Learning Companions: Modeling and supporting emotion during learning”. \$594,700. October 2007 – September 2010.

Fisher, D. L. (Principal Investigator). The Prevention Research Branch of the Division of Epidemiology, Statistics, and Prevention Research (DESPR), National Institute of Child Health and Human Development (NICHD). “Teen Passenger Simulation.” \$22,500. October 2007 – September 2009.

Blomberg, R. D., Thomas, F. D. and Fisher, D. L. (Consultant). National Highway Traffic Safety Administrations (Contract No. DTNH22-05-D-350433-0007, Traffic Injury Control Evaluation and Behavioral Technology Research). “Safety Outcomes for Older Drivers of Licensing Procedures”. \$393,269. October 2007 – April 2010.

Fisher, D. L. (Principal Investigator) and Knodler, M. Mitsubishi Electric Research Labs. “Distraction and New In - Vehicle Technologies: Evaluation using an Advanced Driving Simulator (MERL I)”. \$38,995. July 2007 – May 2008.

Menon, R. A., Winston, F., and Fisher, D. L. (Co-Principal Investigator). National Science Foundation Industry/University Collaborative Research Center, Children’s Hospital of Philadelphia. “Evaluation of backup sensors and rear-view camera systems.” \$65,000. May 2007 – February 2008.

Collura, J., Fisher, D. L. (Co-Principal Investigator), Gårder, P. New England University Transportation Center. Evaluation of Dynamic Message Sign Deployments and their Effects on Older Drivers. \$100,000. November 2006 – October 2007.

Henneman, E. A., Fisher, D. L. (Co-Principal Investigator), Plotkin, K., Roche, J. P., Cunningham, H. and Reilly, C. Academic Technology Grant, University of Massachusetts, Office of the Vice President for Academic Technology. "Using eye-tracking technology to teach nursing students surveillance skills to reduce medical error". \$5,000. May 2006 – April 2007.

Henneman, E. A., Roche, J. P., and Fisher, D. L. (Co-Principal Investigator). Hluchyj Family Gift, College of Engineering, University of Massachusetts. “A study of communication errors in the health care system.” \$85,000 (to be split among three teams). Summer 2007.

Muriel, A. and Fisher, D. L. (Co-Principal Investigator). Community Service Learning Grant, University of Massachusetts. “Community Service Learning: Probability and Statistics.” \$3,000. September 2006 – May 2007.

Blomberg, R. D., Thomas, F. D. and Fisher, D. L. (Consultant). National Highway Traffic Safety Administrations (Contract No. DTNH22-05-D-35043, Traffic Injury Control Evaluation and Behavioral Technology Research). “On Developing a New Generation of Driver Education (06-01132)”. \$150,000. August 2006 – April

2008.

- Knodler, M. and Fisher, D. L. (Co-Principal Investigator). New England University Transportation Center. "An Evaluation of Driver Comprehension Related to Solid Yellow Change Indications and the Potential Impact of the Flashing Yellow Arrow Permissive Indication". \$65,000. August 2006 – July 2007.
- Dingus, T., et al. National Highway Traffic Safety Administration. "Driver Behavior and Performance Field Test and Evaluation Support proposal (DTNH22-05-R-01019)". Transportation Center at the University of Massachusetts is a subcontractor. Awarded July 2005, five year subcontract.
- Fisher, D. L. (Principal Investigator), Knodler, M., Noyce, D. and Pollatsek, A. CALSPAN. "Use of a Driving Simulator to Study Left-Turn-Across-Path/Opposite Direction (LTAP/OD) Conflicts". \$121,746. May 1, 2005 – October 31, 2005.
- Seymour, C., Fisher, D.L. (Co-Principal Investigator), Petersen, S., and Tyson, J. National Science Foundation (HRD-0450339). "No Longer 'A Dream Deferred:' Greater Minority STEM Participation Through Academic Opportunity and Institutional Change." March 1, 2005 – February 28, 2010. \$8,780,490.
- Fisher, D. L. (Principal Investigator), Knodler, M. and Pollatsek, A. New England Transportation Consortium. "Driver-Eye-Movement-Based Investigation for Improving Work-Zone Safety". \$75,000. March 1, 2005 – January 1, 2007.
- Fisher, D. L. (Principal Investigator). National Highway Traffic Safety Administration (Cooperative Agreement Number: DTNH22-05-H-01421). "Development of novice driver training programs". \$300,000. January 31, 2005 – January 30, 2007.
- Sizov, K. and Fisher, D. L. (Investigator). National Center for Injury Prevention and Control. "Portable Vehicle Simulator for Training Novice Drivers". \$100,000. September 1, 2004 – August 31, 2005.
- Woolf, B., Barto, A., Mahadevan, S., Fisher, D. L. (Co-Principal Investigator). National Science Foundation (ROLE). "Learning to Teach: The Next Generation of Intelligent Tutoring Systems". \$1,250,000. August 1, 2004 – July 31, 2007.
- Hancock, K. and Fisher, D. L. (Co-Principal Investigator). Governor's Highway Safety Bureau. "Risk Perception Training Program to Driving Instructors." November 15, 2003 – October 15, 2004. \$37,836.
- Sizov, K. and Fisher, D. L. (Investigator). National Institute of Aging (R43 AG022777-01). "A Portable Driving Simulator for Advising Older Adults". October 1, 2003 – November 1, 2004. \$75,000.
- Fisher, D. L. (Principal Investigator), Grosse, I., Krishnamurty, S., Rayner, K., and Woolf,

- B. National Science Foundation: Knowledge and Distributed Intelligence (9980045). "Visualization and Spatial Reasoning: Cognitive Models, Skill Acquisition and Intelligent Tutors." September 15, 1999 - September 14, 2003. \$998,000.
- Fisher, D. L. (Principal Investigator), Grosse, I., Krishnamurty, S., Rayner, K., and Woolf, B. General Electric Fund. "Elementary Visualization and Spatial Reasoning: Cognitive Models, Skill Acquisition and Intelligent Tutors." September 15, 1999 - September 14, 2003. \$450,000.
- Marrett, C., Seymour, C., St. Mary, D., Fisher, D. (Co-Principal Investigator), Petersen, S. National Science Foundation: Division of Human Resource Development (9978878). "No Longer a Dream Deferred: Greater Minority SME Participation." October 1, 1999 - September 30, 2004. \$2,500,000.
- Gao, R. X., Ritter, J., Fisher, D. L. (Co-Principal Investigator), Krishnamurty, S., and Terpenney, J.. National Science Foundation, Division of Bioengineering and Environmental Systems (BES 0001347). "Senior Design Projects to Aid the Disabled". September 1, 2000 - August 31, 2004. \$124,993.
- Upchurch, J. and Fisher, D. L. (Co-Principle Investigator). National Cooperative Highway Research Program (NCHRP Project 20-7(155)). "Signing for Two-Lane Exit Ramps with an Option Lane". July 1, 2002 – June 30, 2003. \$55,000.
- Fisher, D. L. and Upchurch, J. Massachusetts Highway Department. "Signage for the Boston Central Artery/Tunnel Project: Advance Guidance, Exit Identifier, Gore and Route Diversion Signs". June 30, 2002 – June 3, 2003. \$85,000.
- Fisher, D. L. and Katsikopoulos, K. National Aeronautics and Space Administration. "Plan continuation errors during aircraft approach and landing: Simple heuristics for combining conflicting cues". June 15, 2002 – September 15, 2002. \$32,278.
- Hammel, K. and Fisher, D. L. (Fellowship for K. Hammel). Link Foundation for Simulation and Training, Orlando, Florida. "The Use of Advanced Driving Simulators to Evaluate the Effect of In-Vehicle Technologies on Driver's Performance." September 2002 - August 2003. \$24,000
- Fisher, D. L (Principal Investigator). Noyce, D., Pollatsek, A. and Duffy, S. A. Link Foundation. "Developing and Testing a Program of Younger Driver Risk-Awareness Training: The Use of an Advanced Fixed-Base Driving Simulator". June 1, 2001 - May 31, 2002. \$50,000
- Fisher, D. L. (Principal Investigator), Duffy, S. A., Hancock, K and Upchurch, J. Massachusetts Highway Department. "Signage for the Boston Central Artery/Tunnel Project: Advance Guidance, Exit Identifier, Gore and Route Diversion Signs". December 1, 1999 – June 30, 2002. \$185,000.

- Noyce, D. A. and Fisher, D. L. (Co-Principal Investigator). Massachusetts Highway Department. "Safety evaluation of centerline rumble strips." October 1, 2001 - September 30, 2002. \$57,832.
- Gao, R. X., Ritter, J., Fisher, D. L. (Co-Principal Investigator), Krishnamurty, S., and Terpenney, J. and Fisher, D. L. (Co-Principal Investigator). Healy Public Service Endowment Grant, University of Massachusetts (1-60886). "Senior Design Project in Assistive Technologies". July 1, 2000 - June 30, 2001. \$15,000.
- Fisher, D. L. (Principal Investigator). National Institutes for Health and Centers for Disease Control (RO3 OH03583): Doctoral Dissertation Fellowship for Nancy A. Laurie. "A model for predicting CTDs due to repetitive learning". September 30, 1999 - September 29, 1999. \$24,500.
- Fisher, D. L. (Principal Investigator), Duffy, S. A., Hancock, K. and Shuldiner, P. Massachusetts Port Authority. "Evaluation of Signage at Logan International Airport: Increasing drivers' way finding capabilities." September 1, 1998 - December 31, 2000. \$200,000.
- Fisher, D. L. (Principal Investigator). Veterans Administration. "Evaluation of the effect of cataracts on driving performance." December 1, 1999 - August 31, 2000. \$2,500.
- Brock, J. and Fisher, D. L. (Co-Principal Investigator). AAA Foundation for Traffic Safety. "Evaluation on a driving simulator of the Zero Errors Driving Program." December 1, 1997 - May 1, 1998. \$44,000.
- Andres, R. O. and Fisher, D. L. (Co-Principal Investigator). Motorola, Inc. Schaumburg, IL. "Analysis of the call flows in the Uniport Voice Dialing System: An evaluation in a driving simulator." November, 1996 - February, 1997. \$24,000.
- Fisher, D. L. (Principal Investigator). Liberty Mutual Research Center for Safety and Health, Hopkinton, MA. "Visual scanning of homogeneous displays." November 1, 1996 - December 31, 1996, \$2,500.
- Fisher, D. L. (PI) and Collura, J. Massachusetts Highway Department, Traffic Engineering Division. "Three Dimensional Signing of One Way Ramps". September 1, 1996 - December 31, 1997. \$52,000.
- Fisher, D. L. (PI) and Collura, J. University Transportation Center, New England Region (Year 9). "Electronic variable message signs: Strategic management of intermodal junctions". September 1, 1996 - December 31, 1997. \$77,250.
- Glaser, R. and Fisher, D. L. (Fellowship for R. Glaser). Link Foundation for Simulation and Training, Orlando, Florida. "Detecting motion: Simulator image factors

affecting response time." September 1996 - August 1997. \$18,000.

Shuldiner, P., Hancock, K, Collura, J. and Fisher, D. L. (Co-PI). National Science Foundation. "Research and curriculum development in Intelligent Transportation Systems." January 1, 1996 - January 1, 2000. \$398,000.

Andres, R. O. and Fisher, D. L. (Co-Principal Investigator). Precision Systems, Inc., St. Petersburg, Florida. "Setting performance expectancies: The effect on users' satisfaction with a hands free interface to a cellular telephone evaluated on a driving simulator." February 1996. \$2,750.

Fisher, D. L. (Principal Investigator). Liberty Mutual Research Center for Safety and Health, Hopkinton, MA. "Visual scanning of homogeneous displays." January 29, 1996 - June 9, 1996, \$6,593.

Fisher, D. L. (Principal Investigator). Millitech Corporation, South Deerfield, MA. Support for Project MIDAS (Massachusetts Integrated Driving & Acoustic Simulator). July 1995 - July 1996. \$50,000.

Fisher, D. L. (Principal Investigator). National Institute of Aging. "Models of aging: The microstructure of cognition". September 30, 1994 - September 30, 1997. \$205,000.

Fisher, D. L. (Principal Investigator). Bose Corporation. "The simulation of audio remote control units". September 1, 1995 - March 1, 1996. \$20,982.

Fisher, D. L. (Principal Investigator). Millitech Corporation, South Deerfield, MA. Support for Project MIDAS (Massachusetts Integrated Driving & Acoustic Simulator). July 1994. \$20,000.

Fisher, D. L. (Principal Investigator). National Science Foundation Academic Research Infrastructure Instrumentation Program (SBR-9413733). "The development of an integrated eye tracker, driving simulator and virtual acoustic environment". September 15, 1994 - September 15, 1997. \$150,000.

Fisher, D. L. (Principal Investigator). Healy Endowment Grant, University of Massachusetts. "A model of eye movement scanning patterns: Theory and practice". July 1994. \$5,000.

Fisher, D. L. (Research Contract). U. S. Army Research Institute. "Mathematical models of collective skills in synthetic training environments". April, 1992. \$14,700.

Fisher, D. L. (Research Contract). U. S. Army Research Institute. "Modeling Morse Intercept". August, 1991. \$8,648.

Fisher, D. L. and Howard, M. H. (Fellowship for M. Howard). NASA. "Presentation styles in a fault diagnosis expert system". April, 1989. \$17,800.

- Andres, B. and Fisher, D. L. (Co-Principal Investigator). Federal Paper Board. "Biomechanical analysis and modeling of carpal tunnel syndrome". March 1989. \$2,500.
- Fisher, D. L. (Principal Investigator) and Rayner, K. National Institute of Mental Health. "A single process theory of visual search". May 1985. \$104,488.
- Rayner, K., Fisher, D. L. (Co-Principal Investigator), Frazier, L. and Pollatsek, A. National Science Foundation. "A multiuser eye tracking system". June 1986. \$68,250.
- Coury, B. G. and Fisher, D. L. (Co-Principal Investigator). U. S. Army Human Engineering Laboratory. "Complex decision making in remotely piloted vehicle operation". August, 1985. \$172,000.
- Fisher, D. L. (Principal Investigator). National Institute of Health Biomedical Research Support Grant (RR07048). "Visual information processing in schizophrenics and normals". October 1984. \$5,000.
- Fisher, D. L. (Principal Investigator), Coury, B. G. and Duffy, S. A. Digital Equipment Corporation, External Research Grant (Agreement 134). "Directed search through visually cluttered displays". August 1984. \$14,850 in equipment money.
- Fisher, D. L. (Principal Investigator) and Colen, S. University of Massachusetts Engineering Alumni Association Work-Study Grant. "Changeable message traffic signs". November, 1983. \$500.
- Fisher, D. L. (Principal Investigator). National Science Foundation, Special Research Initiation Award for New Investigators, Division of Information Science and Technology. "The modeling of finite state, stochastic information systems". 1983-1985. \$36,275.
- Fisher, D. L. (Principal Investigator). University of Massachusetts. Faculty Research Grant, "Human information processing systems: A new approach to representation and modeling". 1982-1983. \$2,477.
- Fisher, D. L. (Principal Investigator). The University of Michigan, Rackham Dissertation Grant. "Stochastic models of visual search". 1982. \$337.
- Fisher, D. L. (Principal Investigator); Michigan Department of Mental Health Grant. "The use of Markov models to determine the manpower requirements for the care and treatment of outpatients in the mental health system: A study of one affective disorder". 1980-82. \$2,000.

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- Tian, H., Gao, S., Fisher, D. L. and Post, B. (2016, in review). Route choice behavior in a driving simulator with real-time information. *Transportation Research C*.
- Taylor, T., Roman, L., McFeaters, K., Romoser, M., Borowsky, A., Merritt, D.J., Pollatsek, A., Lee, J.D. and Fisher, D. L. (2016, under review). Cell phone conversations impede latent hazard anticipation while driving, with partial compensation by self-regulation in more complex driving scenarios. *Human Factors*.
- Yamani, Y., Horrey, W.J., Liang, Y. and Fisher, D.L. (2016, under review). Age-related Differences in Vehicle Control and Eye Movement Patterns at Intersections: Older and Middle-aged Drivers. *The Journals of Gerontology Part B: Psychological Sciences*.
- Krishnan, A., Samuel, S., Romoser, M. R., Knodler, M., & Fisher, D. L. (2016, under review). Evaluation of Training Program Designed to Decrease Young Drivers' Secondary Task Engagement in High-Risk Scenarios. *Accident Analysis & Prevention*.
- Samuel, S., Yamani, Y. & Fisher, D.L. (2016, under review). Reductions Are Possible in Older Driver Crashes at Intersections by Up to 50%: The Triumph of Dumb Luck. *Clinical & Experimental Optometry*.
- Taylor, T., Roman, L., McFeaters, K., Romoser, M., Borowsky, A., Merritt, D., Samuel, S., Pollatsek, A., Lee, J. D., & Fisher, D.L. (under review). Cell Phone Conversations Impede Latent Hazard Anticipation While Driving, with Partial Compensation by Self-Regulation in More Complex Driving Scenarios. *Human Factors*.
- Samuel, S., Yamani, Y., Romoser, M. & Fisher, D. L. (under review). Driving Simulator Training Reduces Risk of Older Driver Crashes at Intersections – the Achilles' heel: How to Make Training Less Nauseogenic. *Applied Ergonomics*.
- Schneider, C., Zhang, J., Romoser, M.R.E., Samuel, S., Knodler, M., & Fisher, D. (under review). Older driver simulator based intersection training: can simulator sickness be reduced and training effectiveness be maintained? *Accident Analysis & Prevention*.
- Samuel, S., & Fisher, D.L. (2016, under review) – Evaluating Carryover Effects on Forward Roadway Glance Durations. *Journal of Transportation Safety and Security*.
- Borowsky, A., Horrey, W.J, Liang, Y., Garabet, A., Simmons, L., and Fisher D.L. (2016, under review). The effects of brief visual interruption tasks on drivers' ability to resume their visual search for a pre-cued hazard. *Accident Analysis and Prevention*.
- Henneman, E.A., Marquard, J.L., Fisher, D.L., and Gawlwinsky, A.G. (in press). Eye

tracking: A novel approach for evaluating and improving the safety of healthcare processes in the simulated setting. *Simulation in Healthcare*.

Fisher, D.L., Lohrenz, M., Moore, D., Nadler, E., and Pollard, J. (in press). Humans and intelligent vehicles: The hope, the help and the harm. *IEEE Transactions on Intelligent Vehicles*.

Hamid, M., Samuel, S., Borowsky, A., Horrey, W., & Fisher, D. L. (in press). Evaluation of Training Interventions to Mitigate Effects of Fatigue and Sleepiness on Driving Performance. *Transportation Research Record*.

Divekar, G., Samuel, S., Pollatsek, A., Thomas, F.D., Korbela, K. Blomberg, R.D., and Fisher, D.L. (in press). Effects of a pc-based attention maintenance training program on driver behavior for up to four months: A simulator study. *Transportation Research Record*.

Samuel, S. and Fisher, D. L. (in press). Minimum time to Situation Awareness in Scenarios Involving Transfer of Control from the Automation. *Transportation Research Record*.

Valdés, D.M., Colucci, B., Fisher, D., Ruiz, J., Colón, E., and García, R. (recommended for publication). Driving Simulation in the Safety and Operation Performance of the Freeway Toll Plaza. *Transportation Research Record*.

Yamani, Y., Samuel, S., Gerardino, L.R., & Fisher, D.L. (in press). Extending analysis of older drivers' scanning patterns at intersections. *Transportation Research Record*.

Strayer, D.L. and Fisher, D. L. (2016). SPIDER: A Model of Driver Distraction and Situation Awareness. *Human Factors*, 58, 5-12.

Yamani, Y., Samuel, S., Knodler, M.A. and Fisher, D. L. (2016). Evaluation of the effectiveness of a multi-skill program for training younger drivers on higher cognitive skills. *Applied Ergonomics*, 52, 135-141.

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Amster, B., Marquard, J., Henneman, E., and Fisher, D. (2015). Using an eye tracker during medication administration to identify gaps in nursing students' contextual knowledge. *Nursing Educator*, 40, 83-86,

Fisher, D.L. (2015). Cognitive Distraction in the Wild: Next Steps – Addressing a not so Humdrum Conundrum (commentary). *Human Factors*, 57, 1331-1333

McDonald, C.C., Kandadai, V., Loeb, H., Seacrist, T., Lee, Y-C, Bonfiglio, D., Fisher, D.

- L. and Winston, F.K. (2015). Evaluation of a risk awareness perception training program on novice teen driver behavior at left turn intersections. *Transportation Research Record*, 2516, 15-21.
- Borowsky, A., Horrey, W.J., Lian, Y., Garabet, A., Simmons, L. and Fisher, D.L. (2015). The effects of momentary visual disruption on hazard anticipation and awareness in driving. *Traffic Injury Prevention*, 16, 133-139.
- Yamani, Y., Horrey, W.J., Liang, Y. and Fisher, D.L. (2015). Sequential in-vehicle glance distributions: an alternative approach for analyzing glance data. *Human Factors*, 57, 567-572.
- Gómez, R., Samuel, S., Romoser, M. R. E., Knodler, M.A., Collura, J., & Fisher, D.L. (2014). Mitigation of Pedestrian-Vehicle Conflicts at Stop-Controlled T-Intersections. *Transportation Research Record*, 2464, 20-28, 2014
- Henneman, E. A., Cunningham, H., Fisher, D. L., Plotkin, K., Roche, J. P., Reilly, C., Shen, Y., Nathanson, B. and Henneman, P. L. (2014). Eye-tracking as a debriefing mechanism in the simulated setting improves patient safety practices. *Dimensions of Critical Care Nursing*, 33, 129-135.
- Brown, P. J., Marquard, J. L., Amster, B., Romoser, M., Friderici, J., Goff, S. and Fisher, D. L. (2014). What do physicians read (and ignore) in electronic progress notes? *Applied Clinical Informatics*, 5, 430-444.
- Fisher, D.L. and Strayer, D. L. (2014). Modelling situation awareness and crash risk. *The Annals of Advances in Automotive Medicine*, 58, 33-39.
- Durbin, D.R., McGehee, D.V., Fisher, D.L. and McCartt. (2014). Special considerations in distracted driving with teens. *The Annals of Advances in Automotive Medicine*, 58, 69-83.
- Samuel, S., Romoser, M. R. E., Roman, L. G., Hamid, M., Gómez, R., Collura, J., Knodler, M. & Fisher, D. L. (2013). Effects of advanced yield markings and symbolic signs on vehicle-pedestrian conflicts: a field evaluation. *Transportation Research Record*, 2393, 139-147.
- Divekar, G., Pradhan, A. K., Masserang, K. M., Pollatsek, A. and Fisher, D. L. (2013). A simulator evaluation of the effects of attention maintenance training on glance distributions of younger novice drivers. *Transportation Research F*, 20, 154-159.
- Marquard, J. L., Jo, J., Henneman, P. L., Fisher, D. L. and Henneman, E. A. (2013). Can visualizations complement quantitative process analysis measures? A case study of nurses identifying patients before administering medications. *Journal of Cognitive Engineering and Decision Making*, 7, 471-478.

- Taylor, T., Pradhan, A. K., Divekar, G., Romoser, M., Muttart, J., Gómez, R., Pollatsek, A. and Fisher, D. L. (2013). The view from the road: the contribution of on-road glance-monitoring technologies to understanding driver behavior. *Accident Analysis and Prevention*, 58, 175-186. doi: 10.1016
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- Pollatsek, A., Divekar, G. and Fisher, D. L. (2012). A new measure of inattentiveness to the forward roadway. *Transportation Research Record*, 2321, 31-37.
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- Gómez, R., Samuel, S., Roman Gerardino, L., Romoser, M. R. E., Collura, J., Knodler, M., and Fisher, D. L. (2011). Do advance yield markings increase safe driver behaviors at unsignalized, marked midblock crosswalks: A driving simulator study. *Transportation Research Record*, 2264, 27-33. NIHMSID # 406994
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POSTERS

- Wright, T.J., Horrey, W.J., Lesch, M.F., and Fisher, D.L. (July 2016). *Transfer of Control in Automated Driving: The Ecological Validity of Common Simulated Transfer Scenarios*. Poster presented at the 7th International Conference on Applied Human Factors and Ergonomics, Orlando, FL.

SYMPOSIA/PANELS ORGANIZED

- Lohrenz, M. and Fisher, D.L. (October 2016). *The Evolving Role of Automation in Transportation: Human Factors Lessons Learned from the Different Modes* (HFES Panel). Human Factors and Ergonomics Society, Washington, DC.
- Lohrenz, M. and Fisher, D.L. (January 2016). *Distributed, Cross-Modal and Cross-Platform Simulation* (TRB Workshop). Transportation Research Board Annual Meetings, Washington, D.C.
- Foss, R., Bingham, C.R., Senserrick, T., Simons-Morton, B., Tefft, B. and Fisher, D.L. (January 2016). *Measurement in Young Driver Research: Issues and Needs* (TRB Workshop). Transportation Research Board Annual Meetings, Washington, D.C.
- Shope, J., Williams, A.F., Simons-Morton, B., Kinnear, N., Learner, N., and Fisher, D.L. (January 2016). *Learning to Drive Safely: Perspectives on Young Novice Drivers and Needed Research* (Panel). Transportation Research Board Annual Meetings, Washington, D.C.
- Fisher, D.L. (January 2011). *Selected Topics from the Handbook of Driving Simulation for Engineering, Medicine, and Psychology: From Scenario Design to Data Interpretation* (TRB Session). Four speakers presented at the Transportation Research Board Annual Meetings, Washington, D.C.
- Fisher, D.L. (January 2010). *Selected Topics from the Handbook of Driving Simulation*

for Engineering, Medicine, and Psychology: Issues in Simulator Fidelity. The Transportation Research Board Annual Meetings, Washington, D.C.

Fisher, D. L., Mourant, R., Rizzo, M. (January 2005). *The Development of Standardized Descriptions of Driving Simulator Scenarios: Human Factors Considerations* (TRB Workshop). Transportation Research Board Annual Meetings, Washington, D.C.

Fisher, D. L. (November 1996). *Collision warning and avoidance.* Six speakers presented at the Annual Meetings of SPIE, the International Society for Optical Engineering, Boston.

Fisher, D. L. (May 1994). *Productivity gains and mental models: Cognitive engineering.* Three speakers presented at the 3rd Industrial Engineering Research Conference, Atlanta.

Fisher, D. L. (April 1992). *Optimization techniques in human factors.* Five speakers presented at the annual meetings of the Operations Research Society of America, Orlando.

Fisher, D. L. (October 1992). *Application of optimization in biomechanics.* Five speakers presented at the 36th annual meetings of the Human Factors Society, Atlanta.

PRESENTATIONS AT PROFESSIONAL MEETINGS, INVITED PRESENTATIONS, POSTER SESSIONS, ABSTRACTS

RS5C, Tim Wright (May)

HFES, Foroogh (accepted, toll plaza)

HFES, Tim Wright (accepted)

HFES, Tracy Zafian (accepted, State Farm – Tracy, Siby, Matt, me)

Nodine, E., Fisher, D.L., Jerome, C., Monk, C. and Najm, W. (August 2016). Long-Term Driver Adaptation to In-Vehicle Safety Technologies. *Fifth International Symposium on Naturalistic Driving Research*, VTTI, Blacksburg, VA.

Fisher, D.L., Nodine, E., Lam, A., Jerome, C., Monk, C., and Najm, W. (October 2016). Effects on drivers' behavior of forward collision warning systems. *Presentation at the Human Factors and Ergonomics Society Annual Meeting*, Washington, D.C.

Fisher, D.L. (October 2016). What will happen to the teen drivers of today? A triage of research and intervention issues: Novice driver education. *Panel presentation at the Human Factors and Ergonomics Society Annual Meeting*, Washington, DC.

Zhang, T., Li, J., Thai, H., Zafian, T., Samuel, S., & Fisher, D.L. (October 2016).

Evaluation of the Effect of a Novice Driver Training Program on Crashes & Citations. *Presentation at the Human Factors and Ergonomics Society Annual Meeting, Washington, DC.*

Schneider, C., Hajiseyedjavadi, F.S., Zhang, J., Romoser, M.R.E., Samuel, S., Knodler, M., & Fisher, D. (2016, Accepted). Use of Micro Scenarios to Reduce the Effects of Simulator Sickness in Training Intervention Studies. *Presentations at the Human Factors and Ergonomics Society Annual Meeting.*

Zhang, T., Samuel, S., Zafian, T., Nicholas, C., Zhang, J., Knodler, M., & Fisher, D.L. (July 2016). Do Traffic Warnings on Google Glass Improve the Latent Hazard Anticipation Ability of Novice & Experienced Drivers? *Presentation at the Applied Human Factors & Ergonomics Conference.*

Valdés, D.M., Colucci, B., Fisher, D., Ruiz, J., Colón, E., and García, R. (January 2016). Driving Simulation in the Safety and Operation Performance of the Freeway Toll Plaza. *Presented at the 95th Annual Meeting of Transportation Research Board.* Washington, D.C., January.

Anzagira, A., Ramyar, S., Yan, Xuyang, Agana, N., Homaifair, A., and Fisher, D. L. (January 2016). Effect of Visual and Auditory Warnings on Latent Hazard Anticipation while Engaged in a Mock Cellphone Task. *Presented at the 95th Annual Meeting of Transportation Research Board.* Washington, D.C., January.

Yamani, Y., Samuel, S., Gerardino, L.R., & Fisher, D.L. (January 2016). Extending analysis of older drivers' scanning patterns at intersections. *Presented at the 95th Annual Meeting of Transportation Research Board.* Washington, D.C., January.

Samuel, S., Zafian, Y., Nicholas, C.A., Zhang, J., Knodler, M., and Fisher, D.L. (January 2016). Do Traffic Warnings on Heads-Mounted Displays Improve Latent Hazard Anticipation? A Simulator Study. *Presented at the 95th Annual Meeting of Transportation Research Board.* Washington, D.C., January.

Samuel, S. and Fisher, D. L. (January 2016). Minimum time to Situation Awareness in Scenarios Involving Transfer of Control from the Automation. *Presented at the 95th Annual Meeting of Transportation Research Board.* Washington, D.C., January.

Divekar, G., Samuel, S., Pollatsek, A., Thomas, F.D., Korbela, K., Blomberg, R.D., and Fisher, D.L. (January 2016). Effects of a pc-based attention maintenance training program on driver behavior for up to four months: A simulator study. *Presented at the 95th Annual Meeting of Transportation Research Board.* Washington, D.C., January.

Divekar, G., Samuel, S., Pollatsek, A., Thomas, F.D., Korbela, K., Blomberg, R.D., and Fisher, D.L. (January 2016). On-road Evaluation of a Hazard Perception Training program using Eye Tracking and Commentary Driving. *Presented at the 95th*

Annual Meeting of Transportation Research Board. Washington, D.C., January.

- Hamid, M., Samuel, S., Borowsky, A., Horrey, W., & Fisher, D. L. (January 2016). Evaluation of Training Interventions to Mitigate Effects of Fatigue and Sleepiness on Driving Performance. *Presented at the 95th Annual Meeting of Transportation Research Board.* Washington, D.C., January.
- Fisher, D.L. (November, 2015). Novice driver education: it's past and it's future. *Invited keynote address to be presented at the Third Forum on Traffic Safety: Youth and Traffic Safety*, Dammam, Saudi Arabia.
- Fisher, D.L. (December 2015). User and Machine. *Invited address presented to the Department of Mechanical Engineering*, University of Minnesota.
- Fisher, D.L. (December 2015). The last two seconds of your life. *Invited address presented to the University of Minnesota Transportation Center*, University of Minnesota
- Samuel, S. & Fisher, D.L. (November 2015). Minimum Time to Situation Awareness when transferring Control from the Automation to the Human in the presence of Pedestrians. *9th Spotlight Conference on Connected Vehicle Technology*, Washington D.C. Poster Session
- Fisher, D. L. (October, 2015). User and machine: Secrets to an harmonious marriage. *Invited address to be presented at Reimagining Transportation: The new thought leadership speaker series at Volpe National Transportation Systems Center*, Cambridge, MA.
- Yamani, Y., Samuel, S., Gerardino, L., Zafian, T., & Fisher, D.L. (October 2015). Navigating intersections: examining age-related differences in visual scanning on a driving simulator. Presented at the *Human Factors and Ergonomics Society 2015 International Annual Meeting, Los Angeles*.
- Samuel, S., Horrey, W. and Fisher, D.L. (October 2015). A predictive model of driver response in a level 2/3 autonomous environment. Presented at the *Human Factors and Ergonomics Society 2015 International Annual Meeting, Los Angeles*.
- Krishnan, A., Samuel, S., Romoser, M. and Fisher, D. L. (October 2015). A usability study to evaluate the effectiveness of a tablet-based training program for younger drivers. Presented at the *Human Factors and Ergonomics Society 2015 International Annual Meeting, Los Angeles*.
- Samuel, S., Romoser, R.E., Knodler, M., and Fisher, D.L. (October 2015). Evaluating spillover effects on forward roadway glance durations. *Presented at the meetings of the Road Safety and Simulation Conference*, Orlando, FL.

- Valdés, D.M., Colluci, B., Fisher, D. L., Valdés, J.C., Colón, E.M., García, R.E., and Rivera, J. M. (October 2015). Operational and safety-based analysis of toll plaza signage using driving simulation. *Presented at the meetings of the Road Safety and Simulation Conference*, Orlando, FL.
- Schneider, C.A., Zhang, J., Romoser, M.R.E, Park, G., Rosenthal, T., Klyde, D., Samuel, S., Zafian, T., and Fisher, D. L. (2015). .Older driver simulator based intersection training: can simulator sickness be reduced and training effectiveness be maintained? *Presented at the meetings of the Road Safety and Simulation Conference*, Orlando, FL.
- Anzagira, A., Ramyar, S., Yan, X., Agana, N., Homaifar, A., and Fisher, D.L. (October 2015). Effect of Visual and Auditory Warnings on Latent Hazard Anticipation while Engaged in a Mock Cellphone Task. *Presented at the meetings of the Road Safety and Simulation Conference*, Orlando, FL.
- Young, J., Isaacs, M., Newman, G., Schneider, C., Krishnan, A., Nicholas, C., Liu, A., Zafian, T.M., Zhang, J., Melnik, G., Romoser, M. and Fisher, D.L. (October 2015). Moving Map Displays: Using CTIL and Eye Tracking Technologies to Measure Operator Performance in Locomotive Cabs. *Presented at the meetings of the Road Safety and Simulation Conference*, Orlando, FL.
- Fisher, D.L. (September, 2015). Older driver intersection crashes: Training works, but why? Invited address presented at the 7th *The Eye, The Brain and The Auto World Research Congress*, Dearborn, MI
- Cox, D.J, Moncrief, M, Rizzo, M., Fisher, D., Lambert, A., Eberhart. S., and Moncrief, R. (June 2015). Low hanging fruit: use of virtual reality driving simulation in department of motor vehicles to assess minimal competence of novice drivers. In *Presented at the Eighth International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*. Salt Lake: Iowa City: Public Policy Center, University of Iowa.
- Samuel, S., Yamani, Y., Gerardino, L. R., Zafian, T., & Fisher, D. L. (June 2015). Older driver safety at intersections : understanding scanning patterns. *Poster presented at Older Driver Safety Summit: Planning a safe and mobile future*. Boston, MA
- Takahashi, M., Yamani, Y., Dünder, C., and Fisher, D. L. (January 2015). Evaluating effectiveness of partitioning complex visual displays on glancing behavior inside of vehicle. *Presented at the 94th Transportation Research Board Annual Meeting, TRB, National Research Council*, Washington, D.C.
- Lotan, T., Musicant, O. and Fisher, D. (January 2015). Where do learning-to-drive students actually look? *Presented at the 94th Transportation Research Board Annual Meeting, TRB, National Research Council*, Washington, D.C.

- McDonald, C.C., Kandadai, V., Loeb, H., Seacrist, T., Lee, Y-C, Bonfiglio, D., Fisher, D.L. and Winston, F.K. (January 2015). Evaluation of a risk awareness perception training program on novice teen driver behavior at left turn intersections. *Presented at the 94th Transportation Research Board Annual Meeting, TRB, National Research Council, Washington, D.C.*
- Krishnan, A., Samuel, S., Dündar, C. and Fisher, D.L. (January 2015). Evaluation of a training program (STRAP) designed to decrease young drivers secondary task engagement in high risk scenarios: a strategic approach to training hazard anticipation in young drivers. *Presented at the 94th Transportation Research Board Annual Meeting, TRB, National Research Council, Washington, D.C.*
- Samuel, S. and Fisher, D. L. (January 2015). Evaluation of the Minimum Forward Roadway Glance duration critical to Latent Hazard Detection. *Presented at the 94th Transportation Research Board Annual Meeting, TRB, National Research Council, Washington, D.C.*
- Zhang, J., Romoser, M., and Fisher, D.L. (January 2015). Evaluation on a driving simulator of a training program designed to reduce risky behaviors associated with quick starts and quick stops: The LAG (Less Aggressive Goals) Training Program. *Presented at the 94th Transportation Research Board Annual Meeting, TRB, National Research Council, Washington, D.C.*
- Borowsky, A., Horrey, W., Liang, Y., Simmons, S., Garabet, A. and Fisher, D. L. (October 2014). The role of working memory in driving related hazard anticipation. Presented at the *Human Factors and Ergonomics 2014 International Annual Meeting, Chicago.*
- Yamani, Y., Samuel, S., & Fisher, D.L. (October 2014). Simulator evaluation of an integrated road safety training program. *Presented at the Human Factors and Ergonomics Society Annual Meeting, Chicago.*
- Nicholas, C.A., Yamani, Y., & Fisher, D.L. (October 2014). Reducing alarm fatigue: The effect of alarm set size on caregivers' ability to detect infrequent signals. *Poster presented at HFES 2014 International Symposium on Human Factors and Ergonomics in Healthcare, Chicago, IL, March.*
- Fisher, D.L. and Strayer, D. L. (March 2014). Modelling situation awareness and crash risk. *The Engaged Driving Initiative Expert Panel Findings and Recommendations, Washington, DC.*
- Durbin, D.R., McGehee, D.V., Fisher, D.L. and McCartt. (March 2014). Special considerations in distracted driving with teens. *The Engaged Driving Initiative Expert Panel Findings and Recommendations, Washington, DC.*
- Zafian, T. M., Samuel, S., Borowsky, A. and Fisher, D. L. (January 2014). Can young

drivers be trained to better anticipate hazards in complex driving scenarios? A driving simulator study. *Presentation at the 93rd Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.

Mehranian, H., Pollatsek, A. P. and Fisher, D.L. (January 2014). Novice and Experienced Drivers - Evaluation of Hazard Anticipation, Hazard Mitigation and Attention Maintenance Skills in Complex Driving Scenarios. *Presentation at the 93rd Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.

Samuel, S., Borowsky, A., & Fisher, D. L. (January 2014). Text Messaging While Driving: User Experience and Interface Type. *Presentation at the 93rd Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.

Gómez, R., Samuel, S., Romoser, M. R. E., Knodler, M. A., Collura, J., & Fisher, D. L. (January 2014). Mitigation of Pedestrian-Vehicle Conflicts at Stop-Controlled T-Intersections. *Presentation at the 93rd Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.

Hamid, M., Samuel, S., Borowsky, A., & Fisher, D. L. (January 2014). Evaluation of Effect of Total Awake Time on Driving Performance Skills: Hazard Anticipation and Hazard Mitigation-Simulator Study *Presentation at the 93rd Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.

Divekar, G., Samuel, S., Pollatsek, A., Thomas, D., Korbela, K., Blomberg, R. D., & Fisher, D. L. (January 2014). Longitudinal Effects of PC-Based Attention Maintenance Training on Driver Behavior: Simulator Study. *Presentation at the 93rd Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.

Muttart, J. W., Fisher, D. L., and Pollatsek, A. P. (January 2014). Comparison of Anticipatory Glancing and Risk Mitigation of Novice Drivers and Exemplary Drivers When Approaching Intersections in a Driving Simulator. *Presentation at the 93rd Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.

Muttart, J. and Fisher, D. L. (June 2013). Comparing response behaviors of newly licensed drivers to exemplary drivers at high risk curves and turning locations. *Presented at the 7th International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*, Lake George, NY. Iowa City: Public Policy Center, University of Iowa.

Borowsky, A., Horrey, W., Liang, Y., Garabet, A., Simmons, L. and Fisher, D.L. (June 2013). The effects of momentary visual disruption on hazard anticipation.

Presented at the 7th International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Lake George, NY. Iowa City: Public Policy Center, University of Iowa.

- Samuel, S., Zafian, T., Borowsky, A., Romoser, M. R. E., and Fisher, D. L. (June 2013). Can young drivers learn to anticipate hidden hazards: a driving simulator study? *Presented at the 7th International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Lake George, NY. Iowa City: Public Policy Center, University of Iowa.*
- Fisher, D. L. (May 16, 2013). *Distracted drivers*. Invited presentation. Western Massachusetts Safety Council. West Springfield, MA.
- Fisher, D. L. (April 23, 2013). *Distracted teen drivers* (invited presentation). Expert Panel on Distracted Driving, Association for the Advancement of Automotive Medicine. Chicago, IL.
- Hamid, M., Divekar, G., Borowsky, A., Fisher, D.L. (January 2013). Using eye movements to evaluate the effect of total awake time on attention maintenance and hazard anticipation in a driving simulator. *Annual Meetings of the Transportation Research Board.*
- Samuel, S., Romoser, M. R. E., Roman Gerardino, L., Abdul Hamid, M., Gomez, R. A., Knodler, M. A., Collura, J., and Fisher, D. L. (January 2013). Effect of Advance Yield Markings and Symbolic Signs on Vehicle-Pedestrian Conflicts: A Field Evaluation. *Annual Meetings of the Transportation Research Board.*
- Elsmore, G., Parasuraman, R., Fisher, D.L. and Isaac, M. (September 2012). Reducing Major Rule Violations in Commuter Rail Operations: The Role of Distraction and Attentional Errors. *Human Factors and Ergonomics Society's 56th Annual Meeting*, Boston, MA.
- Zhang, J, Borowsky, A., Romoser, R.E. Fisher, D. L., Harsham, B., Schmidt-Neilsen, B. Weinberg, G. (September 2012). Evaluation of Two Types of In-Vehicle Music Retrieval and Navigation System. *56th Annual Human Factors and Ergonomics Society's Meeting*, Boston, MA.
- Fisher, D. L. (August 2012). Effects of billboards on drivers' hazard anticipation and vehicle management behaviors: Study on a driving simulator *The 5th International Conference on Traffic and Transport Psychology*, Groningen, The Netherlands.
- Fisher, D. L. (August 2012). A robust theory of hazard anticipation and driving safety: Effects of Experience, Age, Cognitive Load, and Eccentricity. *The 5th International Conference on Traffic and Transport Psychology*, Groningen, The Netherlands.

- Fisher, D. L. (May 4, 2012). Simulator adaptation syndrome. *Annual meeting of the California Commission on Peace Officer Standards and Training, Law Enforcement Driving Simulator subgroup*. San Diego, CA.
- Fisher, D.L. (March 27, 2012). Driver distraction: Engineering, enforcement and education remedies. National Transportation Safety Board, Distracted Driving, Washington, DC.
- McDonald, C.C., Tanenbaum, J.B., Lee, Y., Fisher, D.L., Mayhew, D.R. and Winston, F.K. (January 2012). Using crash data to develop simulator scenarios for assessing young novice driver performance. *Transportation Research Board 91st Annual Meeting 2012*, Washington, D.C.
- Fisher, D.L. (March 2012). Distracted driving: Can the Commonwealth lead the nation? *Governor's Working Group on Distracted Driving*, Boston, MA.
- Romoser, M.R.E., Deschamps, M., Wilson, H. and Fisher, D. L. (January 2012). Investigating Differences Between Experienced Adult Drivers and Teen Drivers Using Lower-Cost Vehicle Data-Recording Technology. *Transportation Research Board 91st Annual Meeting 2012*, Washington, D.C.
- Pollatsek, A., Divekar, G. and Fisher, D.L. (January 2012). A new measure of inattentiveness to the forward roadway. *Transportation Research Board 91st Annual Meeting 2012*, Washington, D.C.
- Divekar, G., Pradhan, A.K., Pollatsek, A. and Fisher, D.L. (January 2012). External Distractions: Evaluation of their effect on younger novice and experienced drivers' behavior and vehicle control. *Transportation Research Board 91st Annual Meeting 2012*, Washington, D.C.
- Tian, H., Gao, S. and Fisher, D.L. (January 2012). A mixed-logit latent-class model of strategic route choice behavior with real-time information. *Transportation Research Board 91st Annual Meeting 2012*, Washington, D.C.
- Fisher, D. L. (June 2011). New Training Programs Reduce Behaviors Associated with the Crashes of Novice and Older Drivers on the Open Road For Up to One Year. *Roundtable on Age-Related Operator Performance*, Volpe National Transportation Systems Center, Cambridge.
- Samuel, S., Pollatsek, A. and Fisher, D. L. (June 2011). Texting while driving: evaluation of glance distributions for frequent/infrequent texters and keypad/touchpad texters. *Driving Assessment 2011*, Lake Tahoe, Nevada.
- Taylor, T. G. G., Masserang, K.M., Divekar, G., Samuel, S., Muttart, J. W, Pollatsek, A. and Fisher, D. L. Long Term Effects of Hazard Anticipation Training on Novice Drivers Measured on the Open Road. *Driving Assessment 2011*, Lake Tahoe,

Nevada.

- Muttart, J., Bartlett, W., Peck, L., Guderian, S., Ton, L. P., Kauderer, C., Lyman, E. and Fisher, D. L. (June 2011). Influence of riding experience on glance behavior, brake response time and deceleration rates by drivers and motorcyclists. *Driving Assessment 2011*, Lake Tahoe, Nevada.
- Fisher, D.L. (May 2011). Changing behaviors and reducing crashes: Advances in teen driver education around the world. Invited presentation, *2011 Transportation Research and Education Conference, Michigan Center for Advancing Safe Transportation throughout the Lifespan*, University of Michigan, Ann Arbor, MI.
- Fisher, D.L. (April 2011). Worried? Will my children crash? Will my parents crash? Will I crash? Invited presentation, *Industrial and Systems Engineering Colloquia, Department of Civil and Environmental Engineering Transportation Lecture Series*, University of Wisconsin, Madison.
- Fisher, D. L. (February 2011). Distracted driving: Careless or clueless. Invited Address, *Maine Distracted Driving Summit*, Portland, ME.
- Divekar, G., Mehranian, H., Romoser, M. R. E., Muttart, J. W., Garder, P., Collura, J. and Fisher, D. L. (January 2011). Predicting drivers' route choices when given categorical and numerical information on delays ahead: The effect of age, experience, and prior knowledge. Poster presentation at the *Transportation Research Board 90th Annual Meeting*, Washington, DC.
- Gomez, R., Samuel, S., Roman Gerardino, L., Romoser, M. R. E. and Fisher, D. L. (January 2011). Do advance yield markings increase safe driver behaviors at unsignalized, marked midblock crosswalks: A simulator study. Presentation at the *Transportation Research Board 90th Annual Meeting*, Washington, DC.
- Vlakveld, W., Romoser, M. R. E., Mehranian, H., Diete, F., and Fisher, D. L. (January 2011). Does the experience of crashes and near crashes in a simulator-based training program enhance novice driver's visual search for latent hazards? . Poster presentation at the *Transportation Research Board 90th Annual Meeting*, Washington, DC.
- Muttart, J. W., Peck, L. R., Guderian, S., Bartlett, W., Ton, L. P., Kauderer, C., Fisher, D. L. and Manning, J. E. (January 2011). Motorcycle rider glance and stopping behavior at intersections: it's time to put our foot down. Presentation at the *Transportation Research Board 90th Annual Meeting*, Washington, DC.
- Tian, H., Gao, S., Fisher, D. L. and Post, B. (January 2011). Route choice behavior in a driving simulator with real-time information. Presentation at the *Transportation Research Board 90th Annual Meeting*, Washington, DC.

- Fisher, D.L. (November 2010). Convergent Opportunity or Collision Course? Older Drivers, New Technology & Well-Being Behind the Wheel, *Massachusetts Institute of Technology, Center for Transportation & Logistics, AgeLab & New England University Transportation Center*, Cambridge, MA.
- Fisher, D. L. and Garay-Vega, L. (May 2010). Advanced yield markings and drivers' performance in response to sight limited scenarios at mid-block crosswalks. *International Conference on Safety and Mobility of Vulnerable Road Users: Pedestrians, Motorcyclists, and Bicyclists*, Jerusalem.
- Henneman, P., Marquard, J., Fisher, D., Bleil, J., Walsh, B., Henneman, J., Blank, F., Higgins, A.M., Nathanson, B., & Henneman, E. (2010). Bar-code scanning may reduce but not eliminate medication and patient identification errors in clinical simulation. Poster presented at *American College of Emergency Physicians Research Forum*.
- Muttart, J. W., Hurwitz, D. S., Pradhan, A. K., Fisher, D. L., Knodler, (January 2010). Backing acceleration and response times to an unexpected audible warning in a field test. Paper presented at the *Annual Meetings of the Transportation Research Board of the National Academies*, Washington, DC
- Divekar, G., Fisher, D., Collura, J., Garder, P., Romoser, M. (November 2009). A Simulator Evaluation of the Effect of Providing Real Time Traveler Information on Diversion Frequencies: Older Drivers". Presentation. *HFES Conference*, New England Chapter.
- Fisher, D.L. (August 2009). Risk Awareness. Invited Address. *2009 International Conference on Teen Driver Safety*, Michigan Center for Advancing Safe Transportation throughout the Lifespan, Ann Arbor, MI
- Romoser, and Fisher, D. L. (June 2009). Effects of Cognitive and Physical Decline on Older Drivers' Side-to-Side Scanning for Hazards While Executing Turns. Poster presented at *Driving Assessment 2009*, Big Sky, Montana.
- Pradhan, A., Masserang, K., Divekar, G., Reagan, I., Thomas, F.D., Blomberg, R., Pollatsek, A. and Fisher, D.L. (June 2009). Attention Maintenance in Novice Drivers - Assessment and Training. Poster presented at *Driving Assessment 2009*, Big Sky, Montana.
- Marquard, J., Christov, Stefan, Henneman, P., Clarke, L., Osterweil, L., Avrunin, G., Fisher, D., Henneman, E., Campbell, M. and Pham, T. (June 2009). Studying Rigorously Defined Health Care Processes Using a Formal Process Modeling Language, Clinical Simulation, Observation, and Eye Tracking. Poster presented at *Naturalistic Decision Making Conference*, London.
- Fisher, D.L. (June 2009). Say When is that Driving Simulation Handbook EVER Going

to be Finished?: Highlights from an Important Ordeal. Invited panelist. *Driving Assessment 2009*, Big Sky, Montana.

Henneman, P.L., Fisher, D.L., Henneman, E.A., Pham, T.A., Campbell, M.M., and Nathanson B.H. (May 2009). Many Emergency Health Care Workers Do Not Verify Patient Identity Prior to Performing Common Tasks (abstract), *Academic Emergency Medicine 2009* (May) 16: S260-S261. Presented National (May – New Orleans, LA) SAEM Annual Meetings.

Fisher, D.L. (April 2009). The future of driving simulation in engineering, medicine and psychology. Invited plenary address. *International Traffic Medicine Association 21st World Congress*, the Hague, the Netherlands.

Ouimet, M.C., Simons-Morton, B.G., Fisher, D.L. and Duffy, C.W. (April 2009). Driving simulation to understand and reduce young drivers' risks: A review of the randomized controlled trial evidence. *International Traffic Medicine Association 21st World Congress*, the Hague, the Netherlands.

Fisher, D.L. (April 2009). Novice drivers – Is there hope: Blind inattention or inattention blindness. Invited presentation. *SWOV (the Road Safety Research Institute) Younger Driver Workshop*, Leidschendam, the Netherlands.

Fisher, D.L. (March 2009) Novice drivers – Is there hope: Blind inattention or inattention blindness. Invited presentation. *Lifesavers Conference 2009*. Nashville, Tennessee.

Henneman, P.L., Fisher, D.L., Henneman, E.A., Pham, T.A., Campbell, M.M., and Nathanson B.H. (March 2009). Many emergency health care workers do not verify patient identity prior to performing common tasks. Presented at the *Society for Academic Emergency Medicine*. Regional meetings, Worcester, MA.

Henneman PL, Fisher DL, Henneman EA, Pham TA, Campbell MM, Nathanson BH: Many Emergency Health Care Workers Do Not Verify Patient Identity Prior to Performing Common Tasks (abstract). *Acad Emerg Med 2009* (May)16: S260-S261. Presented National (May – New Orleans, LA) and Regional (March-Worcester, MA) SAEM Annual Meetings.

Fisher, D. L. (February 2009). Novice and older drivers – Is there hope: Blind inattention or inattention blindness. Invited presentation. Department of Psychology, University of Calgary, Alberta.

Garay-Vega, L., Fisher, D. L., Knodler, M. (July 2008). Evaluation of Drivers Performance in Response to Sight-Limited Crash Scenarios at Midblock Crosswalks: Benefits of Advance Yield Markings and Symbolic Signage. *Annual Meetings of the Human Factors and Ergonomics Society*, New York, New York.

- Fisher, D. L., Pradhan, A., Hurwitz, D., Knodler, M., Menon, R., Meissner, U. (May 2008). Backing Collisions: A Study of Drivers' Eye and Backing Behavior Using Rear View Camera Systems. *Society of Automotive Engineers Annual Government/Industry Meeting*, Washington, DC.
- Henneman, P. L., Fisher, D. L., Henneman, E. A., Pham, T. A., Mei, Y. Y., Talati, R., Nathanson, B. H. and Roach, J. (May 2008). *Providers do not verify patient identity during computer order entry. Poster presented at the Society of Academic Emergency Medicine Annual Meeting*, Washington DC.
- Chan, E., Pradhan, A. K., Knodler, M. A, Pollatsek, A. and Fisher, D. L. (August 2007). Empirical Evaluation on a Driving Simulator of the Effect of Distractions Inside and Outside the Vehicle on Drivers' Eye Behaviors. *Presentation at the 87th Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.
- Langone, M., Knodler, M. A., and Fisher, D. L. (August 2007.) A Simplified Methodology for Location-Based Crash Analysis. *ITE Annual Meeting*, Pittsburgh, PA.
- Muttart, J., Fisher, D. L., and Pollatsek, A. (January 2007). Driving Simulator Evaluation of Driver Performance during Hands-Free Cell Phone Operation in a Work Zone: Driving without a Clue. *Presentation given at the 86th Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.
- Fisher, D. L., Pradhan, A. K., Pollatsek, A. and Knodler, M. A. Jr. (January 2007). Empirical evaluation of hazard anticipation behaviors in the field and on a driving simulator using an eye tracker. *Presentation given at the 86th Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.
- Gary Vega, L., Fisher, D. L. and Pollatsek, A. (January 2007). Hazard Anticipation of Novice and experienced drivers: empirical evaluation on a driving simulator in daytime and nighttime conditions. *Presentation given at the 86th Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.
- Knodler, M. A. Jr., Noyce, D. A., and Fisher, D. L. (January 2007). Evaluating the impact of two allowable permissive left-turn indications. *Presentation given at the 86th Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C.
- Pradhan, A. K., Fisher, D. L., Knodler, M., Pollatsek, A., Langone, M. (October, 2006). Field Evaluation of a Risk Awareness and Perception Training Program for Younger Drivers. *Presentation given at Human Factors and Ergonomics Society 50th Annual Meeting*, San Francisco.

- Pollatsek, A., Fisher, D.L., and Pradhan, A. (2006) *Eye movements as predictors of risk in driving*. Second China International Conference on Eye Movements. Tianjin, China.
- Pradhan, A. K., Fisher, D. L. and Pollatsek, A. Risk Perception Training for Novice Drivers: (January 2006). Evaluating Duration of Effects on a Driving Simulator. *Presentation given at the 85th Transportation Research Board Annual Meeting*, TRB, National Research Council, Washington, D.C..
- Fisher, D. L. (September 2005). Risk Seeking, Attention, and Knowledge: Their Role in Novice and Experienced Driver Crashes. Invited talk presented at the Youthful Driver Initiative (State Farm[®] Mutual Automobile Insurance Company and Childrens Hospital of Philadelphia), Boston, MA.
- Johns, J., Jonsson, A., Mehranian, H., Arroyo, I., Woolf, B, Barto, A., Fisher, D, Mahadevan, S. (July 2005). Evaluating the Feasibility of Learning Student Models from Data. *Presentation given at the American Association for Artificial Intelligence Workshop on Educational Data Mining* (Technical Report WS-05-02), Pittsburgh, PA.
- Fisher, D. L. and Pollatsek, A. (June 2005). *Risk Seeking, Attention, and Knowledge: Their Role in Novice and Experienced Driver Crashes*. Invited talk presented at a conference in honor of the retirement of Dr. Christopher. D. Wickens, University of Illinois, Champaign-Urbana
- Garay-Vega, L. and Fisher, D. L. (June 2005). Can novice drivers recognize foreshadowed risks as easily as experienced drivers. *Paper given at Driving Assessment 2005*, Rockport, Maine.
- Pradhan, A. K., Fisher, D. L., and Pollatsek. A. (June 2005). The effects of pc-based training on novice drivers' risk awareness in a driving simulator. *Paper given at Driving Assessment 2005*, Rockport, Maine.
- Romoser, M., Fisher, D. L., Mourant, R., Wachtel, J. and Sizov, K. (June 2005). The Use of a Driving Simulator to Assess Senior Driver Performance: Increasing Situational Awareness through Post-Drive One-on-One Advisement. *Paper given at Driving Assessment 2005*, Rockport, Maine.
- Fisher, D. L. (March 2005). *The Use of Eye and Head Movements to Evaluate Risk Awareness and Perception Among Novice and Older Drivers*. Invited presentation at Schepens Eye Research Institute, Harvard Medical School, Cambridge, MA.
- Romoser, M., Fisher, D. L., Mourant, R. Wachtel, J., Sizov, K., Kennedy, S. I., and Andra, M. (January 2005). Use of a Driving Simulator to Assess Older Adults' Critical Driving Skills. *Paper given at the Transportation Research Board Annual Meeting*, Washington, D.C.

- Upchurch, J., Fisher, D. L., and Waraich, B. (January 2005). *Signing for Two-Lane Exits with an Option Lane: A Human Factors Evaluation*. Paper presented at the Transportation Research Board Annual Meeting, TRB, National Research Council, Washington, D.C.
- DeRamus, R. and Fisher, D. L. (October 2004). *The Effect of Driver Age and Experience on Risk Assessment and Risk Prediction*. Paper presented at the Human Factors and Ergonomics Society's Annual Meeting, New Orleans.
- Romoser, M., Woolf, B. P., Bergeron, D. and Fisher, D. L. (October 2004). *The Mental Rotation Tutors: A Flexible, Computer-based Tutoring Model for Intelligent Problem Selection*. Paper presented at the Human Factors and Ergonomics Society's Annual Meeting, New Orleans
- Fisher, D. L., Narayanaan, V., Pradhan, A. and Pollatsek, A. (October 2004). *The Use of Eye Movements to Evaluate the Effect of PC-Based Risk Awareness Training on an Advanced Driving Simulator*. Paper presented at the Human Factors and Ergonomics Society's Annual Meeting, New Orleans.
- Garay, L., Fisher, D. L. and Hancock, K. (October 2004). *Effects of Driving Experience and Lighting Condition on Driving Performance*. Paper presented at Human Factors and Ergonomics Society's Annual Meeting, New Orleans.
- Garay, L., Fisher D., and Hancock, K. (May 2004). *Evaluation of Driving Performance Among Young Novice Drivers During Reduced Visibility Conditions*. 2004 District 1 Annual Meeting of the Institute of Transportation Engineers, Burlington, Vermont.
- Dutta, A., Fisher, D. L., and Noyce, D. A. (January 2004). *Use of a Driving Simulator to Evaluate and Optimize Factors Affecting Understandability of Variable Message Signs*. Paper presented at the Annual Meetings of the Transportation Research Board, Washington, D.C.
- Fisher, D. L., Upchurch, J., Pradhan, A., Mehranian, H., and Romoser, M. (January 2004). *Signing Two-Lane Freeway Exits with an Option Through Lane in Extreme Conditions: Anatomy of Drivers' Behavior*. Paper presented at the Annual Meetings of the Transportation Research Board, Washington, D.C.
- Dutta, A., Fisher, D. L., Noyce, D. A., and Deshmukh, A. (October 2003). *Use of driving simulator to evaluate the effect of repetition on variable message signs*. Paper presented at the 2003 Driving Simulator Conference North America, Dearborn, Michigan.
- Woolf, B. P., Romoser, M., Bergeron, D., & Fisher, D. L. (July 2003). *Tutoring 3-Dimensional Visual Skills: Dynamic Adaptation to Cognitive Level*, *International*

Conference on Artificial Intelligence and Education, Sidney Australia.

- Pradhan, A.K., Hammel, K.R., DeRamus, R., Noyce, D.A., Pollatsek, A. and Fisher, D.L. (January 2003). *The Use of Eye Movements to Evaluate the Effects of Driver Age on Risk Perception in an Advanced Driving Simulator*. Paper presented at the Annual Meetings of the Transportation Research Board, Washington, D.C.
- Hammel, K. and Fisher, D. L. (2002). *The use of advanced driving simulators to evaluate the effects of in-vehicle technologies (telematics) on drivers' performance*. Paper presented at the Human Factors and Ergonomics Society's 46th Annual Meeting, Baltimore.
- Hammel, K. R. and Fisher, D. L. (May 2002). *Evaluating the Effects of In-Vehicle Technologies (Telematics) on Driver's Performance*. Paper presented at the Eyes Tea meeting, Northeastern University, Boston, MA.
- Fisher, D. L. and Upchurch, J. (August 2002). *A New Tool for Traffic Safety: Use of a Driving Simulator*. Paper submitted for presentation to the Institute of Transportation Engineers 2002 International Annual Meeting, Philadelphia, PA.
- Upchurch, J., Fisher, D., Carpenter, R., and Dutta, A. (January 2002). *Freeway guide sign design for the central artery tunnel using a driving simulator*. Paper presented at the Annual Meetings of the Transportation Research Board, Washington, DC.
- Kichhanagari, R., DeRamus Motley, R., Duffy, S. A. and Fisher, D. L. (January 2002). *Airport terminal signs: Use of advance guide signs to speed search*. Paper presented at the Annual Meetings of the Transportation Research Board, Washington, DC.
- Dutta, A., Carpenter, R., Noyce, D. A., Duffy, S. A., and Fisher, D. L. (January 2002). *Drivers' Understanding of Overhead Freeway Exit Guide Signs: Evaluation of Alternatives Using an Advanced Fixed Base Driving Simulator*. Paper presented at the Annual Meetings of the Transportation Research Board, Washington, DC.
- Mehranian, H., Duffy, S., Fisher, D., Niswander, E. (October 2001) *Alternative terminal sign format evaluation: Generating efficient information dense displays*. Paper presented at the Annual Meetings of the Human Factors and Ergonomics Society, Minneapolis, Minnesota.
- Romoser, M. and Fisher, D. L. (October 2001). *Maintaining Kinematic Constraints when Performing Mental Rotations About a Fixed Axis: Implications for Instruction and Displays*. Paper presented at the Annual Meetings of the Human Factors and Ergonomics Society, Minneapolis, Minnesota.
- Hakki, I., Pollatsek, A., Rayner, K., Fisher, D., Miller, B., Goertz, B. (August 2001). *Cube Rotation: An investigation in Mental Rotation and Manipulation*. Talk presented at

the 11th European Conference on Eye Movements, Turku, Finland.

Carpenter, R., Fisher, D., Duffy, S., Hancock, K., Noyce, D., Upchurch, J. and Dutta, A. (August 2001). *Overcoming Sign Design Challenges in the Central Artery Tunnel Project*. Talk presented at the Institute of Transportation Engineers Annual Meeting, Chicago, Illinois.

Valdes, D., Fisher, D. L., Baucage, Y. M. (August 2001). *Use of reference location markers for incident management*. Talk presented at the Institute of Transportation Engineers Annual Meeting, Chicago, Illinois

Katsikopoulos, K. V., Romoser, M. E., Sathyarayana, D. and Fisher, D. L. (August 2001). *Mental Rotation Accuracy as a Function of Kinematic Constraints*. Talk presented at the Annual Meetings of the Society for Mathematical Psychology, Providence, Rhode Island.

Katsikopoulos, K. V. and Fisher, D. L. (August 2001). *Risk Attitude Reversals for Random Reference Points: Rank-Dependent- or Random-Utility Models?* Talk presented at the Annual Meetings of the Society for Mathematical Psychology, Providence, Rhode Island.

Valdes-Diaz, D. M., Fisher, D. L., Baucage-Bou, Y. M. (August 2001). *Use of reference location markers in incident management*. Talk presented at the Institute of Transportation Engineers 2001 Annual Meeting, Chicago, IL

Upchurch, J., Fisher, D., Carpenter, R. and Dutta, A. (July, 2001.) *Use of a Driving Simulator for Freeway Guide Sign Design: the Central Artery Tunnel Project*. Paper presented at the Institute of Transportation Engineers District 6 Annual Meeting, Albuquerque, New Mexico.

Pabón-Figueroa, M. and Fisher, D. L. (June 2001). *Predicting Shoulder Musculoskeletal Discomfort from Worker Anthropometry and Workplace Design in a Repetitive Task*. Talk presented at the International Society for Occupational Ergonomics and Safety, Fairfax, Virginia.

Terpenney, J., Gao, R., Ritter, J., Fisher, D. and Krishnamurty, S. (June 2001). *Senior design projects to aid the disabled*. Talk presented to the 2001 American Society for Engineering Education Annual Conference & Exposition, Albuquerque, New Mexico.

Miller, B., Fisher, D. L., Hakki, I., Pollatsek, A., and Rayner, K. (November 2000). *An examination of mental box folding*. Poster presented at the annual meetings of the Psychonomic Society.

Pabón-González, M. and Fisher, D. L. (March 2000). *Prediction of Shoulder Musculoskeletal Discomfort*. Talk presented at the Group Technology/Cellular

Manufacturing World Symposium - 2000, Mayaguez, Puerto Rico.

Duffy, S. A., Niswander, E., Mundoli, R., Hancock, K., Shuldiner, P. and Fisher, D. L. (January 2000). *The evaluation of alternative terminal sign formats*. Talk presented at the annual meetings of the Transportation Research Board, Washington, D.C.

Katsikopoulos, K. V., Duse-Anthony, Y., Fisher, D. L. and Duffy, S. A. (October 1999). *Advanced travel information and drivers' route choice: Stated preference data*. Talk presented at the Human Factors and Ergonomics Society Annual Meetings, Houston, TX.

Laurie, N. E., Fisher, D. L., Glaser, R., Brock, J. F., Pollatsek, A. and Duffy, S. (June 1999). *Training risk perception with a PC based trainer: Does training generalize to an advanced driving simulator?* Talk presented at the Annual Meetings of the International Society for Occupational Ergonomics and Safety, Orlando.

Fisher, D. L., Brock, J. F., Glaser, R., Connerny, K., Duffy, S. A., Laurie, N. L., and Pollatsek, A. (October 1998). *Evaluation of PC-based younger driver training program: Use of a driving simulator*. Talk presented at the Annual Meetings of the Human Factors Society, Chicago.

Holton, A. and Fisher, D. L. (October 1998). *Advanced Parking Management Systems: Models of drivers' parking decision strategies*. Talk presented at the Annual Meetings of the Human Factors Society, Chicago.

Fisher, D. L., Collura, J., Laurie, N., Mundoli, R. and Zhang, S. (April 1998). *A virtual reality evaluation of 3D "Do Not Enter" signs*. MassHighway Department Research Showcase, Boston.

Fisher, D. L. (April 1998). *Age and skill acquisition: A review*. Invited address presented at the 1998 Cognitive Aging Conference, Atlanta.

Fisher, D. L., Duffy, S. A. and Katsikopoulos, K. (April 1998). *Cognitive slowing among older adults: What kind and how much?* Poster session presented at the 1998 Cognitive Aging Conference, Atlanta.

Szymkowiak, A., Fisher, D. L., Connerny, K. A. and Duffy, S. A. (April 1998). *False yield and false go decisions at signalized left-turn intersections: A driving simulation study*. Poster session presented at the 1998 Cognitive Aging Conference, Atlanta.

Duse-Anthony, Y. and Fisher, D. L. (March 1998). *Development of descriptive models of motorist decision strategies*. Paper presented at the 3rd Annual ITS Massachusetts, Newton, MA.

Szymkowiak, A. Fisher, D. L., and Connerney, K. A. (November 1997). *False yield and*

false go decisions at signalized left-turn intersections: A driving simulator study. Paper presented at the Europe Chapter of the Human Factors and Ergonomics Society Annual Conference, Bochum, Germany.

Collura, J., Fisher, D. and Shuldiner, P. W. (September 1997). *ITS engineering education: Developing ITS laboratory exercises.* Paper presented at the Intelligent Transportation Systems Congress, Rome.

Fisher, D., Collura, J. and Holton, A. (September 1997). *Advanced parking management systems: Strategic management of intermodal junctions.* Paper presented at the UTC Transportation Research Results Conference, Cambridge.

Glaser, R. and Fisher, D. L. (September 1997). *Technology and the older adults: Designing a usable interface.* Paper presented at the Human Factors and Ergonomics Society Annual Meetings.

Glaser, M. F. and Fisher, D. L. (September 1997). *Driving simulators: Are they valid test environments for ITS development?* Paper presented at the Human Factors and Ergonomics Society Annual Meetings.

Gorman, M. and Fisher, D. L. (September 1997). *Visual Search: The slowing of strategic and nonstrategic processes.* Paper presented at the Human Factors and Ergonomics Society Annual Meetings.

Katsikopoulos, K. V. and Fisher, D. L. (September 1997). *Lag effects in paired associate learning: Age differences.* Poster presented at the Human Factors and Ergonomics Society Annual Meetings.

Laurie, N. E., Kulatilaka, I. Arent, D. Andres, R. O., Fisher, D. L. (September 1997). *Voice Activated Dialing Systems: A summary.* Paper presented at the Human Factors and Ergonomics Society Annual Meetings.

Collura, J., Kaufman, D. and Fisher, D. (August 1997). *Integrating ITS research results into Engineering Curricula.* Paper presented at the International Conference on Engineering Education, Chicago.

Fisher, D. L. (August 1997). *Molar and latent models of cognition: Discriminating between general and specific influences on the speed of processing in studies of aging, dementia, depression, development and intelligence.* Invited address presented at the Annual Meetings of the Society for Mathematical Psychology, Bloomington.

Laurie, N., Andres, R. and Fisher, D. (June 1997). *Increasing usability of voice activated dialing systems.* Paper presented at the 12th Annual Meeting of the International Society for Occupational Ergonomics and Safety, Washington, D.C.

- Fisher, D. L. (March 1997). *Driving simulators: A testbed for Massachusetts' ITS Technologies*. Paper presented at the 2nd Annual ITS MA Conference, Newton.
- Fisher, D. L., Collura, J. and Holton, A. (February 1997). *Advanced Parking Management Systems: Effects of variable message signboards on driver decision behavior*. Paper presented at New England Region 1 UTC Research Meeting, Cambridge.
- Wallace, J. S. and Fisher, D. L. (October 1996). *The interface between the driver and collision warning systems: Lessons in complexity*. Paper presented at SPIE Photonics East '96 (Traffic Sensors and Controls: Collision Avoidance, Traffic Management and ITS), Boston.
- Gorman, M. F. and Fisher, D. L. (September 1996). *Cognitive aging: General versus process-specific slowing in a visual search task*. Paper presented at the Annual Meetings of the Human Factors and Ergonomics Society, Philadelphia.
- Katsikopoulos, K. V., Fisher, D. L. and Pullen, M. T. (September 1996). *Paired associate learning: Age Differences*. Paper presented at the Annual Meetings of the Human Factors and Ergonomics Society, Philadelphia.
- Wallace, J. S., Fisher, D. L. and Collura, J. (September 1996). *Sound localization: Information theory analysis*. Paper presented at the Annual Meetings of the Human Factors and Ergonomics Society, Philadelphia.
- Reichle, E. D., Pollatsek, A., and Fisher, D. L. (August 1996). *A model of eye movements in reading*. Paper presented at the 29th Annual Meetings of the Society for Mathematical Psychology, Chapel Hill.
- Fisher, D. L., Gorman, M. F. and Kozloski, J. L. (April 1996). *Biological structure, cognitive function, and the generality of Aging (A_G): Evidence for process-specific slowing from memory and visual search tasks*. Poster presented at the 1996 Cognitive Aging Conference, Atlanta.
- Fisher, D. L. and Katsikopoulos, K. (April 1996). *The general acquisition, decrement, and training hypotheses: Can the effects of aging on the learning of paired associates be mitigated by optimizing the training schedule?* Poster presented at the 1996 Cognitive Aging Conference, Atlanta.
- Reichle, E. D., Pollatsek, A., Fisher, D. L., and Rayner, K. (November 1995). *Toward a model of eye movements in reading*. Paper presented at the 36th Annual Meeting of the Psychonomic Society, Los Angeles, CA.
- Wood, D. D., Andres, R. O. and Fisher, D. L. (June 1995). *Perceived discomfort ratings during repeated isometric grip force exertions*. Paper presented at the Annual International Industrial Ergonomics and Safety Conference, Seattle, Washington.

- Fisher, D. L. (February 1995). *State models of paired associate learning: The general acquisition, decrement and training hypotheses*. Invited address given to the Southeastern Conference on Aging, Destin, Florida.
- Collura, J., Goldstein, H., Fisher, D. L. and Szymkowiak, A. (December 1994). *Experience with an advanced traveler information system trial test in the metropolitan New York city area*. Paper given to the First World Congress on applications of transport telematics and intelligent vehicle-highway systems, Paris, France.
- Wood, D. D., Fisher, D. L. and Andres, R. O. (October 1994). *Optimal grip force work/rest patterns developed from a model to predict localized muscle fatigue during maximal and submaximal work*. Paper presented at the 38th Annual Meeting of the Human Factors and Ergonomics Society, Nashville, Tennessee.
- Fisher, D. L. (May 1994). *The design of optimal menu hierarchies: Novices and experts*. Paper presented to the third annual Industrial Engineering Research Conference Meetings, Atlanta.
- Fisher, D. L. (August 1993). *Cognitive Engineering: Engineering and Psychology in the 21st century*. Invited address delivered to the Division 21 (Applied Experimental and Engineering Psychology) of the American Psychological Association, Toronto.
- Fisher, D. L. (May 1993). *Optimal Static and Dynamic Training Strategies*. Invited paper delivered to the Second Annual Industrial Engineering Research Conference, Los Angeles.
- Fisher, D. L. (May 1993). *Optimal Static and Dynamic Training Strategies*. Invited paper delivered to the annual meetings of the Operations Research Society of America.
- Wood, D. D., Hilliard, T. S., Fisher, D. L., Andres, R. O. and Kroll, W. P. (October 1993). *A pilot study: Development of a model to predict localized muscle fatigue during hand intensive work*. Poster presented at the 1993 Annual Meeting of the International Society of Biomechanics in Sport, Amherst, MA.
- Wood, D. D., Hilliard, T. S., Fisher, D. L., Andres, R. O. and Kroll, W. P. (October 1993). *A pilot study: Development of a model to predict localized muscle fatigue during hand intensive work*. Poster presented at the 37th Annual Meeting of the Human Factors and Ergonomics Society, Seattle, WA.
- Wisher, R., Fisher, D. L., Sabol, M., Townsend, J. T., and Sabol, M. A. (October 1992). *Simulation and analysis of perceptual-motor skill training*. Paper delivered to the 36th annual meetings of the Human Factors Society, Atlanta.
- Fisher, D. L. (October 1992). *Repetitive Motion Disorders: Optimizing the Rate-Rest Schedule*. Paper delivered to the 36th annual meetings of the Human Factors Society, Atlanta.

- Fisher, D. L. (June 1992). *Models of visual search: Theory and applications*. Invited presentation to the Cognitive Science Group, Georgia Institute of Technology, Atlanta.
- Fisher, D. L. (May 1992). *Minimizing the time it takes users to navigate a hierarchy of menus*. Invited paper presented at the third annual meetings of the Journées de l'Optimisation, Montreal.
- Fisher, D. L. and Fisk, A. D. (April 1992). *Markov models for training: Optimizing the Number of Trials to Criterion*. Paper presented at the annual meetings of the Operations Research Society of America, Orlando.
- Fisher, D. L. (April 1992). *Models of general, task-specific and process-specific models slowing*. Invited paper presented at the fourth annual Cognitive Aging Conference, Atlanta.
- Townsend, J. T. and Fisher, D. L. (March 1992). *Models of Morse code copy*. Invited paper presented at the third annual Human Error Conference, Bloomington.
- Fisher, D. L. (May 1991). *Order-of-Processing Diagrams: A new modeling methodology*. Paper presented at the annual Hoosier Mental Life Conference, Bloomington.
- Fisher, D. L. (March 1991). *Optimal performance engineering*. Invited paper presented at the second annual Human Error Conference, Bloomington.
- Bishu, R. R., Rouse, W. B., Gordon, S., Fisher, D.L. (October 1990). *Cognitive Engineering: Directions for future research*. Paper presented at the annual meetings of the Human Factors Society, Orlando.
- Fisher, D. L., Andres, A. O., Airth, D. and Smith, S. (October 1990). *Carpal tunnel syndrome: The design of optimal rate-rest profiles*. Paper presented at the annual meetings of the Human Factors Society, Orlando.
- Preczewski, S. and Fisher, D.L. (October 1990). *Recall of military security codes*. Paper presented to the annual meetings of the Human Factors Society, Orlando.
- Ranney, T. and Fisher, D. L. (October 1990). *Visual search: Pattern learning*. Poster session presented at the annual meetings of the Human Factors Society, Orlando.
- Fisher, D. L. (August 1990). *Visual search and integration*. Paper presented at the Conference on Eye Movements and Visual Cognition, Amherst.
- Mahling, D. E. and Fisher, D. L. (August 1990). *The cognitive engineering of visual languages*. Paper presented at the IEEE Workshop on Visual Programming Languages, Skokie.

- Fisher, D. L., Moss, S. and Yungkurth, E. (October 1989). *Menu navigation: Minimizing the time to find a terminal option*. Paper presented at the annual meetings Instrument Society of America, Philadelphia.
- Yungkurth, E. and Fisher, D. L. (October 1989). *Optimal menu hierarchy design: Syntax and Semantics*. Paper presented at the annual meetings of the Human Factors Society, Denver.
- Howard, M. H. and Fisher, D. L. (October 1989). *Predicting fault diagnosis behavior*. Paper presented at the annual meetings of the Human Factors Society, Denver.
- Workman, D. and Fisher, D. L. (October 1988). *A threshold model of visual search*. Paper presented at the annual meetings of the Human Factors Society, Los Angeles.
- Tanner, N. and Fisher, D. L. (October 1988). *A visual search model for selection of graphic symbols*. Paper presented at the annual meetings of the Human Factors Society, Los Angeles.
- Schweickert, R., Townsend, J. T. and Fisher, D. L. (November 1987). *Simple tests distinguishing sequential and concurrent processes in task networks*. Paper presented at the annual meetings of the Psychonomic Society, Seattle.
- Fisher, D. L. and Smith, J. M. (October 1987). *Transient and equilibrium behavior of finite, tandem queues*. Paper presented at the annual meetings of the Operations Research Society of America, St. Louis.
- Tengs, T. O. and Fisher, D. L. (October 1987). *The framing effect in medical treatment decisions*. Paper presented at the ninth annual meetings of the Society for Medical Decision Making, Philadelphia.
- Tan, K. and Fisher, D. L. (October 1987). *Types of highlighting and search strategy considerations in computer-generated displays*. Paper presented at the annual meetings of the Human Factors Society, New York City.
- Workman, D. and Fisher, D. L. (October 1987). *Selection of visual display symbology: A new metric of similarity*. Paper presented at the annual meetings of the Human Factors Society, New York City.
- Fisher, D. L. and Young, C. (October 1987). *Perceptual Learning: Theory and Applications*. Paper presented at the annual meetings of the Human Factors Society, New York City.
- Coury, B. G., Boulette, M. D., Zubritzky, M. C., and Fisher, D. L. (October 1986). *Classification of multidimensional data: Evaluating displays to aid identification of system state*. Paper presented at the IEEE Conference on Systems, Man and

Cybernetics, Atlanta.

- Fisher, D. L. (August 1986). *Programmable perceptrons: Serial and parallel visual search*. Paper presented at the annual meetings of the Society for Mathematical Psychology, Boston.
- Rayner, K. and Fisher, D. L. (September 1985). *Eye movements and the perceptual span in visual search*. Paper presented at the European Eye Movement Conference, Paris.
- Fisher, D. L., Coury, B. G., and Tengs, T. O. (October 1985). *Optimizing the number of highlighted words on video display terminal menus*. Paper presented at the meetings of the Human Factors Society, Baltimore.
- Tengs, T. O. and Fisher, D. L. (October 1985). *Rapid serial visual presentation (RSVP) of traffic signs*. Paper presented at the meetings of the Human Factors Society, Baltimore.
- Fisher, D. L. and Goldstein, W. M. (April 1985). *The addition of timing information to Petri nets*. Paper presented at the meetings of the Operations Research Society of America, Boston.
- Goldstein, W. M. and Fisher, D. L. (April 1985). *Portfolios: The distribution of the maximum of a set of dependent sums of random variables*. Paper presented at the meetings of the Operations Research Society of America, Boston.
- Fisher, D. L. (September 1984). *Network models of reaction time: The generalized OP diagram*. Invited paper presented at the 23rd International Congress of Psychology, Acapulco.
- Goldstein, W. M. and Fisher, D. L. (August 1984). *Order-of-Processing diagrams as models of response time*. Invited paper presented at the meetings of the Society for Mathematical Psychology, Chicago.
- Fisher, D. L. (November 1983). *Is attention MIRVed?* Invited paper presented at the meetings of the Psychonomic Society, San Diego.
- Fisher, D. L. and Goldstein, W. M. (November 1983). *Critical paths in stochastic PERT networks*. Paper presented at the meetings of the Operations Research Society of America, Orlando.
- Fisher, D. L. and Goldstein, W. M. (November 1983). *Closed form expressions for path optimality indices in stochastic shortest route problems*. Paper presented at the meetings of the Operations Research Society of America, Orlando.
- Fisher, D. L., Moroze, M. and Morrison, R. (October 1983). *Dynamic visual inspection:*

- Queuing models.* Paper presented at the meetings of the Human Factors Society, Norfolk.
- Fisher, D. L. and Papazian, B. (October 1983). *Response times and safety research: Application of the critical path method.* Paper presented at the meetings of the Human Factors Society, Norfolk.
- Fisher, D. L. (April 1983). *Visual search: Capacity limits and automatic detection.* Paper presented at the meetings of the Eastern Psychological Association, Philadelphia.
- Fisher, D. L. and Goldstein, W. M. (April 1983). *The sojourn time distribution of a three queue Jackson network.* Paper presented at the meetings of the Operations Research Society, Chicago.
- Goldstein, W. M. and Fisher, D. L. (April 1983). *The completion time distribution of stochastic PERT networks.* Paper presented at the meetings of the Operations Research Society, Chicago.
- Fisher, D. L. and Goldstein, W. M. (April 1982). *Probabilistic PERT: A continuous time Markov process.* Paper presented at the meetings of the Operations Research Society, Detroit.
- Fisher, D. L. and Goldstein, W. M. (August 1981). *Complex cognitive tasks: Probabilistic PERT and models of reaction time.* Paper presented at the fourteenth annual meetings of the Society of Mathematical Psychology, Santa Barbara.
- Fisher, D. L. (August 1980). *Queuing theoretic models of automatic detection processes.* Paper presented at the thirteenth annual meetings of the Society of Mathematical Psychology, Madison.
- Duffy, S. A. and Fisher, D. L. (May 1980). *The organization and processing of multiplication facts.* Paper presented at the annual meetings of the Midwest Psychological Association, St. Louis.
- Fisher, D. L. (August 1979). *A computer simulation of syllogistic reasoning.* Paper presented at the twelfth annual meetings of the Society of Mathematical Psychology, Providence.
- Fisher, D. L. (June 1979). *Information processing dysfunction and metacognition.* Invited address, Functional Literacy Conference, University of Indiana, Bloomington.
- Fisher, D. L. (May 1978). *Test validity and measures of functional literacy.* Invited address, National Right to Read Conference, Washington, D.C..
- Schwartz, B. J., Fisher, D. L. and Frase, L. T. (1977). *Psychological processes and document design.* Paper presented at the annual meetings of the American

Educational Research Association, New York City.

Smith, M. S. and Fisher, D. L. (May 1974). *A prolegomenon to future studies of reading comprehension*. Paper presented at the annual meetings of the International Reading Association, New Orleans.

SELECTED MEDIA COVERAGE

Scientific American Mind. (June 2012). Herbert, R. Bad habits may cause older drivers' mistakes.

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