

Mary E. Davis, Associate Professor

Department of Urban and Environmental Policy and Planning, Tufts University
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Education

Harvard School of Public Health Boston, Massachusetts
Post-Doctoral Research Fellow October 2003 – August 2004

University of Florida Gainesville, Florida
Ph.D. Economics Graduation, August 2003

University of Miami Coral Gables, Florida
B.A. Economics and International Studies Graduation, May 1998
Minors: Spanish and French

Academic Positions

Tufts University Medford, Massachusetts
Dept of Urban and Environmental Policy & Planning
Department Chair July 2016 – June 2021
Associate Professor September 2012 – Present
Assistant Professor August 2008 – August 2012

Department of Economics
Secondary appointment March 2021 – Present

Boston University School of Public Health Boston, Massachusetts
Visiting Fellow Fall 2014

Harvard School of Public Health Boston, Massachusetts
Visiting Scientist September 2004 – August 2014

Woods Hole Oceanographic Institution Woods Hole, Massachusetts
Marine Policy Center
Senior Research Fellow August 2010 – July 2011

University of Maine Orono, Maine
School of Economics
Assistant Professor August 2006 – August 2008

University of Massachusetts Boston Boston, Massachusetts
Dept of Environmental Earth and Ocean Sciences
Assistant Professor September 2004 – August 2006

Other Positions

- Project Panel Chair, **National Academy of Sciences**, Transportation Research Board, “Climate Resilience and Benefit-Cost Analysis – A Handbook for Airports” (2016-2018)
- Project Panel Chair, **National Academy of Sciences**, Transportation Research Board, “Evaluating the Impact of Aviation Noise on Learning – Case Studies” (2013-2017)
- Board Member, Northeast Fishing Safety Advisory Board, **Northeast Center for Agricultural and Occupational Health** (2012-2014)
- Project Panel Chair, **National Academy of Sciences**, Transportation Research Board, “Evaluating the Impact of Aviation Noise on Learning” (2009-2013)

- Project Panel Member, **National Academy of Sciences**, Transportation Research Board, “Quantifying Contribution to Local Air Quality Impacts from Airport-Related Emissions” (2007-2012)

Books

Davis, ME. Jobs, Health, and the Meaning of Work. Under publication contract with MIT Press (2022).

Peer-Reviewed Journal Publications

Davis ME. “Health Effects of Night and Irregular Shift Work: A Longitudinal Study of US Workers.” *Journal of Occupational and Environmental Medicine*, Vol 63(4):265-69 (2021). **Recipient of the 2022 Kammer Award for best publication in 2021 by the American College of Occupational and Environmental Medicine.**

Davis ME and E Hoyt. “A Longitudinal Study of Piece Rate and Health: Evidence and Implications for Workers in the US Gig Economy.” *Public Health*, Vol.180:1-9 (2020).

Davis ME. “Poetry and Economics: Creativity, Engagement, and Learning in the Economics Classroom.” *International Review for Economics Education*, Vol. 30 (2019).

Walker ED, Hart JE, Garshick E, Cavallari JM, **Davis ME**, Smith TJ, and F Laden. “The Characterization of Polycyclic Aromatic Hydrocarbons in Northeastern U.S. Trucking Terminals.” *Annals of Work Exposure and Health*, Vol. 61(7): 844-853 (2017).

Davis ME. “Pay Matters: The Piece Rate and Health in the Developing World,” *Annals of Global Health*, Vol. 82(5):858-865 (2016).

Davis, ME. “Bringing Imagination Back to the Classroom: A Model for Creative Arts in Economics,” *International Review for Economics Education* Vol. 19:1-12 (2015).

Davis, ME and A Rappaport. “Air Quality in Developing World Disaster and Conflict Zones – The Case of Post-Earthquake Haiti,” *Science of the Total Environment* Vol. 496:22-25 (2014).

Hart JE, Garshick E, Smith TJ, **Davis ME**, and F Laden. “Ischemic Heart Disease Mortality and Vehicle Exhaust in Trucking Industry Workers,” *Occupational and Environmental Medicine* Vol. 70: 523-528 (2013).

Smith TJ, **Davis ME**, Hart JE, Blicharz A, Laden F, and E Garshick. “Potential Air Toxics Hot Spots in Truck Terminals and Cabs.” Health Effects Institute (2012).

E Garshick, Laden F, Hart JE, **Davis ME**, Eisen EA, Smith TJ. “Lung Cancer and Elemental Carbon Exposure in Trucking Industry Workers,” *Environmental Health Perspectives*, Vol. 120(9): 1301-1306 (2012).

Davis ME. “Recessions and Health: The Impact of Economic Trends on Air Pollution in California,” *American Journal of Public Health*, Vol. 102(10): 1951-1956 (2012).

Davis ME. “Structural Equation Models in Occupational Health: An Application to Exposure Modeling,” *Occupational and Environmental Medicine*, Vol. 69:184-190 (2012).

Davis ME. “Occupational Safety and Regulatory Compliance in US Commercial Fishing,” *Archives of Environmental and Occupational Health*, Vol. 66(4): 209-216 (2011).

Zhu, Y, Smith, TJ, **Davis, ME**, Levy, JI, Herrick, R, and H Jiang. “Comparing Gravimetric and Real-Time Sampling of PM_{2.5} Concentrations Inside of Truck Cabins,” *Journal of Occupational and Environmental Hygiene*, Vol. 8(11):662-672 (2011).

Davis ME. “Perceptions of Occupational Risk by US Commercial Fishermen,” *Marine Policy*, Vol. 36:28-33 (2012).

Davis ME, Hart JE, Laden F, Garshick E, and TJ Smith. “A Retrospective Assessment of Occupational Exposure to Elemental Carbon in the US Trucking Industry,” *Environmental Health Perspectives*, Vol. 119(7):997-1002 (2011).

Davis ME, Laden F, Hart JE, Garshick E, and TJ Smith. “Economic Activity and Ambient Air Pollution Trends,” *Environmental Health Perspectives*, Vol. 118(5):614-619 (2010).

Davis ME. “Economic Assessment of Children’s Health and the Environment in Maine,” *Maine Policy Review*, Vol. 19(1):36-45 (2010).

- Davis ME**, Laden F, Hart JE, Garshick E, Blicharz AP, and TJ Smith. “Predicting Changes in PM Exposure over Time using Structural Equation Modeling Techniques,” *Journal of Occupational and Environmental Hygiene*, Vol. 6(7):396-403 (2009).
- Garshick E, Laden F, Hart JE, Rosner B, **Davis ME**, Eisen EA, and TJ Smith. “Lung Cancer and Vehicle Exhaust in Trucking Industry Workers,” *Environ Health Perspectives*, Vol. 116(10):1327-32 (2008).
- Davis ME**, Smith TJ, Laden F, Hart JE, Reaser, P, and E Garshick. “Driver Exposure to Combustion Particles in the US Trucking Industry,” *Journal of Occupational and Environmental Hygiene*, Vol. 4(11): 848-854 (2007).
- Davis ME**, Blicharz AP, Hart JE, Laden F, Garshick E and TJ Smith. “Occupational Exposure to Volatile Organic Compounds and Aldehydes in the US Trucking Industry,” *Environmental Science and Technology*, Vol. 41(20):7152-7158 (2007).
- Laden F, Hart JE, Smith TJ, **Davis ME**, and E Garshick. “Cause Specific Mortality in the Unionized US Trucking Industry,” *Environmental Health Perspectives*, Vol. 115(8):1192-1196 (2007).
- Davis ME**. “U.S. Environmental Politics: A Study of State Toxic Metal Water Quality Standards,” *Journal of Environmental Policy and Planning*, Vol. 9(2):143-163 (2007).
- Garcia R, Hart JE, **Davis ME**, Reaser P, Natkin J, Laden F, Garshick E, and TJ Smith. “Effects of Wind on Background Particle Concentrations at Truck Freight Terminals,” *Journal of Occupational and Environmental Hygiene*, Vol. 4:36-38 (2007).
- Smith TJ, **Davis ME**, Reaser P, Hart JE, Laden F, Heff A, and E Garshick. “Overview of Particulate Exposures in the US Trucking Industry,” *Journal of Environmental Monitoring*, Vol. 8(7):711-720 (2006).
- Davis ME**, Smith TJ, Laden F, Hart JE, Ryan L, and E Garshick. “Modeling Particle Exposure in U.S. Trucking Terminals,” *Environmental Science and Technology*, Vol. 40(13):4226-4232 (2006).
- Bowen B, Frankic A, and **ME Davis**. “Coastal Impacts, Marine Resources and Human Health,” *Oceanography*, Vol. 19(2):28-37 (2006).
- Davis ME**. “Environmental Politics in the US: A Study of State Sulfur Dioxide Standards,” *Journal of Environmental Assessment Policy and Management*, Vol. 7(3):331-354 (2005).

Other Publications

- Davis ME**. ‘Piece Rate, Productivity, and Occupational Health in the Global Economy.’ International Labour Organization and Better Work, Discussion Paper 44, October 2021. Available at: <https://betterwork.org/our-impact/publications/>
- Davis ME**. ‘Best Practices in Management and Compensation: Initial Case Country Results for Cambodia’ International Labour Organization and Better Work, April 2020.
- Davis ME**. “Does Piece Rate Pay Impact Perceived Occupational Hazards in Garment Factories? Evidence from Vietnam.” International Labour Organization and Better Work, Discussion Paper 26, June 2018. Available at: <https://betterwork.org/our-impact/publications/>
- Davis ME**, Thomas A, McDonough J. “The Poetry of Economics,” 2016.
- With Brown D. et al. “The Impact of Better Work: A Joint Program of the International Labour Organization and the International Finance Corporation.” Report to the International Labour Organization and Better Work, Geneva, Switzerland, October 2016.
- Davis ME**. “Occupational Safety and Health in Haiti’s Apparel Sector: Fourth Year Follow-up.” Report to the International Labour Organization and Better Work, Geneva, Switzerland, October 2015.
- Davis ME**. “Occupational Safety and Health in Haiti’s Apparel Sector: Third Year Follow-up.” Report to the International Labour Organization and Better Work, Geneva, Switzerland, October 2013.
- Davis ME**. “Occupational Safety and Health in Haiti’s Apparel Sector: Second Year Follow-up.” Report to the International Labour Organization and Better Work, Geneva, Switzerland, August 2012.
- Davis ME**. “Fishing Vessel Safety and Fisheries Management: A Survey of Fishing Vessel Safety and Risk Taking Behaviors.” Report to the NOAA Cooperative Institute for the North Atlantic Region (CINAR) and The Fishing Partnership, August 2012.

- Backus A, and **ME Davis**. “Occupational Safety in the Maine Commercial Fishing Industry: Status Report and Policy Recommendations.” Report to the Maine Commercial Fishing Safety Council and US Coast Guard District 1 for work under Sea Grant project, July 2011.
- Davis ME**. “Case Study on Occupational Safety and Health in Haiti’s Apparel Sector.” Report to the International Labour Organization and Better Work, Geneva, Switzerland, March 2011.
- Davis ME**. “An Economic Cost Assessment of Environmentally-Related Childhood Diseases in Maine.” University of Maine, School of Economics Staff Paper 579, published online February 2009. Report was subjected to peer-review.
- Davis ME**. “The Economic Burden of Childhood Exposure to Secondhand Smoke in Maine,” University of Maine, School of Economics Staff Paper 570, published online October 2007. Report was subjected to peer-review.
- Davis ME**. “The Politics of the Environment: An Analysis of State Regulations and Special Interest Behavior,” Doctoral Dissertation, Department of Economics, University of Florida, August 2003.

Research Grants Awarded

International Labor Organization ILO-IFC Better Work Program and Better Factories Cambodia Role: PI (Total contract: \$6,600)	Davis (PI)	09/1/19-present
Department of Labor The Effect of Performance Pay on US Workers’ Physical and Emotional Health Role: PI (Total grant: \$110,994)	Davis (PI)	1/18/17-5/31/18
International Labor Organization ILO-IFC Better Work Program Impact Assessment Role: Co-PI (Total grant: \$164,709)	Brown (PI)	4/1/13-3/30/16
Northeast Sea Grant College Consortium Decision-Support for the Economic Analysis of Trade-offs in Coastal and Marine Spatial Planning (CMSP) for the US Northeast Region Role: Co-PI (Total grant: \$300,052)	Hoagland (PI)	2/1/12-1/31/14
NOAA Northeast Fisheries Science Center Fishing Vessel Safety and Fisheries Management Role: Co-PI (Total contract: \$60,000)	Davis/Jin (Co-PI)	8/1/11-7/31/12
International Labor Organization ILO-IFC Better Work Program Impact Assessment Role: Co-PI (Total grant: \$78,385)	Brown (PI)	5/1/11-6/30/12
International Labor Organization ILO-IFC Better Work Program Impact Assessment Role: Consultant (Total grant: \$163,131)	Brown (PI)	7/1/09-3/31/11
R01 NIH/NIEHS Biomarkers of Exposure and Effect in a Traffic Exposed Population Role: Co-Investigator (Total grant: ~\$1,750,000)	Laden (PI)	7/1/08-6/30/12
NOAA Sea Grant Safety and Compliance in the Maine Commercial Fishing Industry Role: Principal Investigator (Total grant: \$212,130)	Davis (PI)	2/1/08-4/31/12

Alliance for a Clean and Healthy Maine Davis (PI) 10/1/08-2/1/09
An Economic Cost Assessment of Environment-Related Childhood Diseases in Maine
Role: Principal Investigator (Total contract: \$13,000)

Internal Research Awards

Tufts Faculty Research Award, Awarded October 2018
Impact of Night Shift and Irregular Work Patterns on Health, Total award: \$5,000

Tufts Summer Faculty Fellowship, Awarded June 2015
Occupational Roots of Chronic Kidney Disease in Central America: A Study of Policy Interventions
Total award: \$7,000

Tufts Innovates Award, Awarded February 2015
Imagination Economics: Innovations in Creative Learning
Total award: \$19,500

Tufts Provost Open Access Funds, Awarded 2011, 2012, and 2015
Publications in *Environmental Health Perspectives*, *American Journal of Public Health*, and *International Review for Economics Education*

Tufts Faculty Research Award, Awarded October 2012
Air Pollution Monitoring in the Developing World: A Case Study in Haiti, Total award: \$5,000

Tufts Summer Faculty Fellowship, Awarded June 2010
The Relationship between Economic Trends and Air Pollution over Time
Total award: \$7,000

Tufts Faculty Research Award, Awarded October 2008
Safety and Compliance in the Commercial Fishing Industry
Total award: \$3,000

Teaching Experience

Tufts University (2008-present)
Public Health and the Built Environment, UEP 224
Economics for Policy and Planning, UEP 251
Active Transportation for Public Health (module), UEP 294
Advanced Quantitative Methods (module), UEP 294
Integrative Seminar, Master of Public Policy UEP 289
Environmental Health for Policy and Planning, UEP 294-16
Quantitative Reasoning for Policy and Planning, UEP 254
Intermediate Quantitative Reasoning, UEP 258

University of Maine (2006-2008)
Senior Seminar, REP 489
Advanced Resource Economics, REP 571

University of Massachusetts Boston (2004-2006)
Risk Analysis and Environmental Health, ECOS 697
Introduction to Applied Statistics, ECOS 601
Introduction to Oceanography, E&GS 226

University of Florida (2002-2003)
Managerial Economics, ECP 3703