

## **Mary E. Davis, Associate Professor**

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

#### **Bunker Hill Community College**

*A.D. Nursing*

Boston, Massachusetts

September 2022 – May 2024

#### **Harvard School of Public Health**

*Post-Doctoral Research Fellow*

Boston, Massachusetts

October 2003 – August 2004

#### **University of Florida**

*Ph.D. Economics*

Gainesville, Florida

Graduation, August 2003

#### **University of Miami**

*B.A. Economics and International Studies*

*Minors: Spanish and French*

Coral Gables, Florida

Graduation, May 1998

### **Academic Positions**

#### **Tufts University**

Dept of Urban and Environmental Policy & Planning

*Department Chair*

*Associate Professor*

*Assistant Professor*

Medford, Massachusetts

July 2016 – June 2021; August 2023 – June 2024

September 2012 – Present

August 2008 – August 2012

Department of Economics

*Secondary appointment*

March 2021 – Present

#### **Boston University School of Public Health**

*Visiting Fellow*

Boston, Massachusetts

Fall 2014

#### **Harvard School of Public Health**

*Visiting Scientist*

Boston, Massachusetts

September 2004 – August 2014

#### **Woods Hole Oceanographic Institution**

Marine Policy Center

*Senior Research Fellow*

Woods Hole, Massachusetts

August 2010 – July 2011

#### **University of Maine**

School of Economics

*Assistant Professor*

Orono, Maine

August 2006 – August 2008

#### **University of Massachusetts Boston**

Dept of Environmental Earth and Ocean Sciences

*Assistant Professor*

Boston, Massachusetts

September 2004 – August 2006

### **Other Positions**

- Chair, Executive Committee, Graduate School of Arts and Sciences, Tufts University (2019-present)
- 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. MIT Press. Forthcoming, August 2024.

**Davis, ME.** The Healthcare Labor Crisis: Challenges and Opportunities for the Nursing Profession. Manuscript in preparation, 2024.

### **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<sub>2.5</sub> 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)	09/1/19-21
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



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