

Mary E. Davis, Assistant Professor

Dept. Urban and Env. Policy and Planning
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School of Economics
University of Maine
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Education

Harvard School of Public Health

*Post-Doctoral Research Fellow
Environmental Health*

Boston, Massachusetts
Oct. 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

American University of Paris

Study abroad: Economics/French

Paris, France
Spring 1997

Universidad de Granada

Study abroad: Economics/Spanish

Granada, Spain
Fall 1995

Academic Experience

Tufts University

*Assistant Professor,
Dept of Urban and Env Policy & Planning*

Medford, Massachusetts
Aug. 2008 – Present

University of Maine

*Adjunct Assistant Professor,
School of Economics*

Orono, Maine
Aug. 2008 – Present

Harvard School of Public Health

*Visiting Scientist,
Environmental Health*

Boston, Massachusetts
Sept. 2004 – Present

University of Maine

*Assistant Professor,
School of Economics*

Orono, Maine
Aug. 2006 – Aug. 2008

University of Massachusetts Boston

*Assistant Professor,
Environmental Earth and Ocean Sciences*

Boston, Massachusetts
Sept. 2004 – August 2006

Peer-Reviewed Publications

Garshick, E, Laden, F, Hart, JE, Rosner, B, **Davis, ME**, Eisen EA, Smith, TJ. “Lung Cancer and Vehicle Exhaust in Trucking Industry Workers” *Environmental Health Perspectives*, Vol 116(10): 1327-1332.

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): 848-54 (November 2007).

Davis, ME, Blicharz, AP, Hart, JE, Laden, F, Garshick, E and Smith, TJ. “Occupational Exposure to Volatile Organic Compounds and Aldehydes in the US Trucking Industry”, *Environmental Science and Technology*, Vol. 41(20): 7152-58 (October 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):1192-6 (August 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 (June 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 (January 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, No. 7, 711-720 (2006).

Davis ME, Smith TJ, Laden F, Hart JE, Ryan L, and E Garshick. “Modeling Particulate Exposure in the US Trucking Industry” *Environmental Science and Technology*, Vol. 40, No. 13, 4226 -4232 (June 2006).

Bowen B, **Davis ME**, and A Frankic. “Coastal Impacts, Marine Resources and Human Health” *Oceanography*, Vol. 19, No. 2 (June 2006).

Davis ME. “Environmental Politics in the US: A Study of State Sulfur Dioxide Standards” *Journal of Environmental Assessment Policy and Management*, Vol. 7, No. 3, 331-354 (September 2005).

Davis, ME, Laden, F, Hart, JE, Garshick, E, Blicharz, AP, and Smith, TJ. “Predicting Changes in PM Exposure over Time using Structural Equation Modeling Techniques”, **accepted pending minor revisions** *Journal of Occupational and Environmental Hygiene* (December 2008).

Smith, TJ, Hart, JE, Laden, F, **Davis, ME**, and E Garshick. “Diesel Exhaust Exposure and Lung Cancer – An Exposure Biology Analysis”, **submitted** to *Journal of Occupational and Environmental Hygiene* (December 2008).

Davis, ME, Laden, F, Hart, JE, Garshick, E, and TJ Smith. “Using the Business Cycle to Reconstruct Historical Exposure to Vehicle Exhaust”, **submitted** to *Environmental Science and Technology* (October 2008).

Other Publications

Davis ME. “An Economic Cost Assessment of Environmentally-Related Childhood Diseases in Maine”, University of Maine, School of Economics Staff Paper, released on January 30, 2009.

Davis ME. “The Economic Burden of Childhood Exposure to Secondhand Smoke in Maine”, University of Maine, School of Economics Staff Paper 570, released October 22, 2007.

Smith TJ, **Davis ME**, Hart JE, Blicharz A, Laden F, Garshick E. “Air Toxics Hot Spots in Industrial Parks and Traffic”. Report to the Health Effects Institute for work under grant contract HEI 4705-RFA03-1/04-1, August 7, 2007.

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).

Popular Press References

- Maine in the Morning FM Radio 103.9, “Interview on the Cost of Secondhand Smoke in Maine Children”, with George Hale and Ric Tyler, October 26, 2007.
- Boston Globe, “Efforts to outlaw smoking shift from public to private spaces”, by Jodie Huang, October 21, 2007.
- Portland Press Herald, “No-smoking efforts hit cars, residences”, by Jodie Huang, October 21, 2007.
- Bangor Daily News, “Secondhand smoke costs Mainers plenty, study finds”, by Meg Haskell, October 24, 2007.
- Maine Public Radio, “Smoking in Cars Bill Set for Legislative Debate”, by Murray Carpenter, January 21, 2008.
- UMaine Today Magazine, “Safety in Numbers”, by Tom Weber, May 2008.

Research Grants

R01 NIH/NCI PA-07-070 Laden (PI) 7/1/08-6/30/12
Biomarkers of Exposure and Effect in a Traffic Exposed Population
Role: Co-Investigator (Total award ~\$3,000,000)

NOAA Sea Grant Davis (PI) 2/1/08-1/31/10
Safety and Compliance in the Maine Commercial Fishing Industry
Role: PI (Total Award ~\$200,000)

UMB Proposal Development Davis (PI) 5/1/05-4/30/06
Risk Assessment of Quincy Bay Seafood
Role: PI (Total Award \$10,000)

NIH/NCI CA90792 Garshick (PI) 4/1/01-12/31/07
Diesel Particle Exposure and Lung Cancer
Role: Senior Data Analyst (2003-2007)

4705-RFA03-1/04-1 HEI Smith (PI) 1/1/04-7/31/07
Assessing Exposure to Air Toxics
Role: Senior Data Analyst (2003-2007)

Other Working Papers and Projects

- Estimating historical exposure to diesel exhaust particulate in the US Trucking Industry 1950-2000. Collaborators: Harvard School of Public Health.
- Measuring the effect of economic trends on historical pollution exposure. Collaborators: Harvard School of Public Health.

- Health effects of exposure to residential wood smoke in rural Maine. Collaborators: Maine Dept of Environmental Protection Air Bureau; Maine Lung Association; University of Southern Maine.

Professional Memberships

- Member, Project Panel “Quantifying Contribution to Local Air Quality Impacts from Airport-Related Emissions”, Transportation Research Board of the National Academy of Sciences
- Member, Scientific Advisory Board, National Children's Campaign for Smoke-Free Cars
- Member, Scientific Advisory Panel, Maine Air Toxics Board
- Editorial Board Member, International Journal of Applied Environmental Sciences
- Member, Sigma Xi Scientific Research Society
- Member, American Economic Association
- Member, Association of Environmental and Resource Economists
- Member, International Society of Exposure Analysis

Teaching Experience

Tufts University

Fall 2008: Economics for Planning and Policy Analysis, UEP 251

Spring 2009: Quantitative Reasoning for Policy and Planning, UEP 254

University of Maine Orono (5 is highest evaluation)

Spring 2008: Senior Seminar, REP 489 (undergrad) eval. 4.43/5

Spring 2008: Advanced Resource Economics, REP 571 (grad); eval. 4.67/5

Fall 2006: Advanced Resource Economics, REP 571 (grad.); eval. 4.75/5

University of Massachusetts Boston (5 is highest evaluation)

Spring 2006: Risk Analysis and Environmental Health, ECOS 697 (grad.); eval. 4.48/5

Fall 2005: Introduction to Applied Statistics, ECOS 601 (grad.); eval. 4.88/5

Spring 2005: Introduction to Oceanography, E&GS 226 (undergrad.); eval. 4.13/5

University of Florida (5 is highest evaluation)

Summer 2003: Managerial Economics, ECP 3703 (undergrad.); eval. 4.52/5

Summer 2002: Managerial Economics, ECP 3703 (undergrad.); eval. 4.79/5

Teaching Assistant 1999-2003: Managerial Economics (MBA)

Ph.D. Field Specializations

Econometrics

Public Economics

Psychology

Advising Experience

Holly Elwell, MA student, UEP, Tufts, thesis committee chair

Samuel Anderson, MA student, UEP, Tufts, thesis committee chair

Eleanor Bacani, MS student, REP, UMaine, thesis committee member (graduated)

Joel Johnson, MS student, REP, UMaine, thesis committee member (graduated)

Tim Olesniewicz, MS student, REP, UMaine, thesis committee member (graduated)

Shelly Edmunson, MS student, EEOS, UMass Boston, thesis committee member (graduated)

Related Skills

Software: STATA, SPSS, ArcGIS; Languages: Spanish, French