

Kris Wernstedt, Professor (he/him/his)
Urban Affairs and Planning, School of Public & International Affairs, Virginia Tech
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<https://Risk-Kris.org>

Areas of Expertise

International Development: informal settlements, household solid waste, drinking water, and sanitation (sub-Saharan Africa)

Decision-Making under Uncertainty: decision heuristics, risk, behavioral economics

Resilience Policy and Planning: natural hazard mitigation, urban transformations, adaptation to climate change and variability, solid waste management, interdependent infrastructures

Contamination and Redevelopment: regulatory reform, institutional controls

Methods: statistical analysis, survey design, geographic information systems

Academic Qualifications

Ph.D., *City and Regional Planning*, Cornell University, 1991

M.R.P., *City and Regional Planning*, Cornell University, 1989

M.S., *Water Resources Management*, University of Wisconsin, 1983

B.S., *Geography*, Western Michigan University, 1980

Professional Experience

2018-present, *Professor*, Urban Affairs & Planning, Virginia Tech

2016-2018, *U.S. Fulbright Scholar*, Institute of Human Settlements Studies, Ardhi University

2013-2016, *Co-Director*, Urban Affairs & Planning, Virginia Tech

2006-2018, *Associate Professor*, Urban Affairs & Planning, Virginia Tech

1990-2006, *Fellow*, Resources for the Future, Washington, DC

Refereed Journal Articles

Wernstedt, Kris, Jacob Kihila, and Mengiseny Kaseva. Forthcoming. "Biases and Environmental Risks in Urban Africa: Household Solid Waste Decision-Making." *Journal of Environmental Planning and Management*.

Kaseva, Mengiseny, Kris **Wernstedt**, and Jacob Kihila. Forthcoming. "Measurement and Quantification of Residential Solid Waste in a Metropolitan City of a Developing Country: Case Study in Four Selected Informal Settlements in Dar Es Salaam City, Tanzania." *Journal of Solid Waste Technology and Management*.

Murray-Tuite, Pamela, Elham Hajhashemi, Susan Hotle, and Kris **Wernstedt**. Forthcoming. "Using Agent-Based Modeling to Evaluate the Effects of Hurricane Sandy's Recovery Timeline on the Ability to Work." *Transportation Research Part D: Transport and Environment*.

Wernstedt, Kris, Patrick S. Roberts, Joseph Arvai, *et al.* 2019. "How Emergency Managers (Mis?) Interpret Forecasts." *Disasters* 43(1), 88-109.

<https://doi.org/10.1111/disa.12293>.

Refereed Journal Articles (continued)

- Roberts, Patrick and Kris **Wernstedt**. 2019. "Decision Biases and Heuristics Among Emergency Managers: Just Like the Public They Manage For?" *The American Review of Public Administration* 49(3), 292–308. <https://doi.org/10.1177/0275074018799490>.
- Roberts, Patrick S., and Kris **Wernstedt**. 2018. "Herbert Simon's Forgotten Legacy for Improving Decision Processes." *International Public Management Journal*:1-26. <https://doi.org/10.1080/10967494.2018.1502223>.
- Kontou, Eleftheria, Pamela Murray-Tuite, and Kris **Wernstedt**. 2017: "Duration of Commute Travel Changes in the Aftermath of Hurricane Sandy using Accelerated Failure Time Modeling." *Transportation Research Part A: Policy and Practice*. 100:170-181. <https://doi.org/10.1016/j.tra.2017.04.015>.
- Lyon, Thomas P., Haitao Yin, Allen Blackman, and Kris **Wernstedt**. 2017: "Voluntary Cleanup Programs for Brownfield Sites: A Theoretical Analysis." *Environmental and Resource Economics*. 1-26. <https://doi.org/10.1007/s10640-017-0121-z>.
- Kontou, Eleftheria, Pamela Murray-Tuite, and Kris **Wernstedt**. 2016: "Commuter Adaptation in Response to Hurricane Sandy's Damage." *Natural Hazards Review*, [https://doi.org/10.1061/\(ASCE\)NH.1527-6996.0000231](https://doi.org/10.1061/(ASCE)NH.1527-6996.0000231).
- Roberts, Patrick and Kris **Wernstedt**. 2016: "Using Climate Forecasts Across a State's Emergency Management Network." *Natural Hazards Review*, [https://doi.org/10.1061/\(ASCE\)NH.1527-6996.0000222](https://doi.org/10.1061/(ASCE)NH.1527-6996.0000222).
- Wernstedt**, Kris and Pamela Murray-Tuite. 2015: "The Dynamic Nature of Risk Perceptions after a Fatal Transit Accident." *Risk Analysis*, 35(3), 536-552. <https://doi.org/10.1111/risa.12284>.
- Wernstedt**, Kris and Fanny Carlet. 2014: "Climate Change, Urban Development, and Stormwater: Perspectives from the Field." *Journal of Water Resources Planning and Management*, 140(4), 543-552. [https://doi.org/10.1061/\(ASCE\)WR.1943-5452.0000308](https://doi.org/10.1061/(ASCE)WR.1943-5452.0000308).
- Murray-Tuite, Pamela, Kris **Wernstedt**, and Weihao Yin. 2014: "Behavioral Shifts after a Fatal Rapid Transit Accident: A Multinomial Logit Model." *Transportation Research Part F: Traffic Psychology and Behaviour*, 24(0), 218-230. <https://doi.org/10.1016/j.trf.2014.04.014>.
- Wernstedt**, Kris, Allen Blackman, Thomas P. Lyon, and Kelly Novak. 2013: "Revitalizing Underperforming and Contaminated Land through Voluntary Action: Perspectives from U.S. Voluntary Cleanup Programs." *Land Use Policy*, 31(0), 545-556.
- Yin, Weihao, Pamela Murray-Tuite, and Kris **Wernstedt**. 2012: "Incident-Induced Diversion Behavior: Existence, Magnitude, and Contributing Factors." *Journal of Transportation Engineering*, 138(10), 1239-1249.
- Wernstedt**, Kris and Robert Hersh. 2010: "Abandoned Hard Rock Mines in the United States: Escape from a Regulatory Impasse?" *William & Mary Policy Review*, 1(1), 25-50.
- Blackman, Allen, Sarah Darley, Thomas P. Lyon, and Kris **Wernstedt**. 2010: "What Drives Participation in State Voluntary Cleanup Programs? Evidence from Oregon." *Land Economics*, 86(4), 785-799.

Refereed Journal Articles (continued)

- Dull, Mathew and Kris **Wernstedt**. 2010: "Land Recycling, Community Revitalization, and Distributive Politics: An Analysis of EPA Brownfields Program Support." *Policy Studies Journal*, 38(1), 119-141.
- Wernstedt**, Kris. 2010: "Gauging the Outcomes of US Brownfields Revitalisation: A Review of the Impacts." *Journal of Urban Regeneration and Renewal*, 3(3), 216-232.
- Wernstedt**, Kris and Jennifer Hanson. 2009: "Community Revitalization through Areawide Brownfield Regeneration, Community Land Trusts, and Progressive Finance." *Environmental Practice*, 11(3), 134-143.
- Wernstedt**, Kris, Patrick Roberts, and Mathew Dull. 2009: "Can Climate Signals Inform Emergency Management? Preliminary Evidence." *Journal of Homeland Security and Emergency Management*, 6(1), Article 54.
- Wernstedt**, Kris. 2009: "Integrated Transport and Urban Design Choices to Reduce Carbon Emissions: Public Attitudes in the Washington, DC USA Metropolitan Area. *World Transport Policy & Practice*, 14(4), 36-47.
- Siiikamäki, Juha and Kris **Wernstedt**. 2008: "Turning Brownfields into Greenspaces: Examining Incentives and Barriers to Revitalization." *J. of Health Politics, Policy, and Law*, 33(3), 559-593.
- Wernstedt**, Kris, Peter B. Meyer, and Anna Alberini. 2006: "Attracting Private Investment to Contaminated Properties: The Value of Public Interventions." *J. of Policy Analysis & Management*, 25(2), 347-369.
- Wernstedt**, Kris and Robert Hersh. 2006: "Brownfields Regulatory Reform and Policy Innovation in Practice." *Progress in Planning*, 65(1), 2-74.
- Wernstedt**, Kris, Peter B. Meyer, Anna Alberini, and Lauren Heberle. 2006: "Incentives for Private Residential Brownfields Development in US Urban Areas." *Journal of Environmental Planning and Management*, 49(1), 101-119.
- Heberle, Lauren and Kris **Wernstedt**. 2006: "Understanding Brownfields Regeneration in the U.S." *Local Environment*, 11(5), 479-497.
- Wernstedt**, Kris and Robert Hersh. 2004: "Climate Forecasts and Flood Planning Under the Reign of ENSO." *Natural Hazards Review*, 5(2), 97-105.
- Wernstedt**, Kris, Peter B. Meyer, and Kristen R. Yount. 2003: "Insuring Redevelopment at Contaminated Urban Properties." *Public Works Management & Policy*, 8(2), 85-98.
- Wernstedt**, Kris and Robert Hersh. 2002: "Climate Forecasts in Flood Planning: Promise and Ambiguity." *Journal of the American Water Resources Association*, 38(6), 1703-1714.
- Wernstedt**, Kris. 2002: "Environmental Protection in the Russian Federation: Lessons and Opportunities." *Journal of Environmental Planning and Management*, 45(4), 493-516.
- Hersh, Robert and Kris **Wernstedt**. 2002: "Gauging the Vulnerability of Local Water Utilities to Extreme Weather Events." *Journal of Environmental Planning and Management*, 45(3), 341-361.
- Wernstedt**, Kris. 2001: "Devolving Superfund to Main Street: Avenues for Local Community Involvement." *Journal of the American Planning Association*, 67(3), 293-313.

Refereed Journal Articles (continued)

- Wernstedt**, Kris. 2000: "Plans, Planners, and Aggregates Mining: Constructing an Understanding." *Journal of Planning Education and Research*, 20(1), 80-90.
- Wernstedt**, Kris. 2000: "Terra Firma or Terra Incognita? Western Land Use, Hazardous Waste and the Devolution of U.S. Federal Environmental Programs." *Natural Resources Journal*, 40(1), 157-183.
- Hersh, Robert and Kris **Wernstedt**. 1999: "Land Use, Risk, and Superfund Cleanups: At the Nexus of Policy and Practice." *Public Works Management & Policy*, 4(1), 31-40.
- Wernstedt**, Kris, Robert Hersh, and Katherine Probst. 1999: "Grounding Hazardous Waste Cleanups: A Promising Remedy?" *Land Use Policy*, 16(1), 45-55.
- Wernstedt**, Kris and Robert Hersh. 1998: "Urban Land Use and Superfund Cleanups." *Journal of Urban Affairs*, 20(4), 459-474.
- Wernstedt**, Kris and Robert Hersh. 1998: "Through a Lens Darkly: Superfund Spectacles on Public Participation at Brownfields Sites." *Risk: Health, Safety & Environment*, 9(2), 153-173.
- Wernstedt**, Kris. 1995: "Regional Environmental Policy and the Distribution of Economic Impacts among Rural Households." *Environment and Planning A*, 27(4), 645-662.
- Paulsen, Charles M. and Kris **Wernstedt**. 1995: "Cost-Effectiveness Analysis for Complex Managed Hydrosystems: An Application to the Columbia River Basin." *Journal of Environmental Economics and Management*, 28(3), 388-400.
- Wernstedt**, Kris and Charles M. Paulsen. 1995: "Economic and Biological Analysis to Aid System Planning for Salmon Recovery in the Columbia River Basin." *Journal of Environmental Management*, 43(4), 313-331.
- Hyman, Jeffrey B. and Kris **Wernstedt**. 1995: "A Value-Informed Framework for Interdisciplinary Analysis: Application to Recovery Planning for Snake River Salmon." *Conservation Biology*, 9(3), 625-635.

Book Chapters and Other Non-Refereed Publications

- Roberts, Patrick S., Kris **Wernstedt**, Joe Arvai, Kelly Redmond. 2019: "The Emergency Manager as Risk Manager," in *Disaster Research and the Second Environmental Crisis* editors James Kendra, Scott Knowles, and Tricia Wachtendorf. Cham: Springer Nature Switzerland. 261-275.
- Wernstedt**, Kris, Jacob Kihila, and Mengiseny Kaseva. 2018: "Residential Solid Waste in Dar es Salaam: Survey and Measurement Evidence from Four Informal Settlements." SPIA Working Paper 18-72.
- Catney, Philip, Tiziana Cianflone, and Kris **Wernstedt**. 2012: "Revitalizing Contaminated Land in Italy, the United Kingdom and the United States: A Comparative Perspective." In *Reclaiming Brownfields: A Comparative Analysis of Adaptive Reuse of Contaminated Properties*, Richard C. Hula, Laura A. Reese and Cynthia Jackson-Elmoore, eds. Farnham, Surrey, UK: Ashgate. 65-88.
- Wernstedt**, Kris, Patrick Roberts, and Mathew Dull. 2009: "Do Long-Term Climate Forecasts Have a Role in Local Emergency Management?" In *Ideas from an Emerging Field: Teaching Emergency Management in Higher Education*, Jessica A. Hubbard, ed. Fairfax, VA: Public Entity Risk Institute. 169-195.

Book Chapters and Other Publications (continued)

- Cianflone, Tiziana, and Kris **Wernstedt**. 2009: "Reducing Uncertainty in the Monetary Assessment of Environmental Liabilities from Waste Landfilling." In *Waste and Environmental Policy*, M. Mazzanti and A. Montini, eds. Milton Park, UK: Routledge. 161-189.
- Dewar, Margaret and Kris **Wernstedt**. 2009: "Challenges in Reusing Vacant, Abandoned, and Contaminated Properties." *Land Lines*, 21(2), 2-7.
- Wernstedt**, Kris and Juha Siikamäki. 2007: "Active Living through Converting Brownfields to Greenspaces." *Planning*, 73(2), A6.
- Wernstedt**, Kris and Peter B. Meyer. 2005: "What Do Developers Want?" *Brownfield News*, June, 12.
- Wernstedt**, Kris and Robert Hersh. 2004: "Reseeding the Turf." *Brownfield News & Regional Report*, May, 6-7.
- Meyer, Peter, Kris **Wernstedt**, and Anna Alberini. 2004: "All Incentives for Infill Development on Contaminated Land Are Not Equal: Developers' Ratings of Different Forms of Support." *Urban Land*, July, 28-31.
- Wernstedt**, Kris. 2004: "A Broader View of Brownfield Revitalization." In *New Approaches on Energy and the Environment*, R.D. Morgenstern and P.R. Portney, eds. Washington, DC: Resources for the Future. 82-86.
- Hersh, Robert and Kris **Wernstedt**. 2001: "Out of Site, Out of Mind: The Problem of Institutional Controls." *Race, Poverty & the Environment*, 8(1), 15-16.
- Hersh, Robert, Katherine Probst, Kris **Wernstedt**, and Jan Mazurek. 1997: *Linking Land Use and Superfund Cleanups: Uncharted Territory*. Washington, DC: RFF.

Other Professional Responsibilities and Accomplishments

- Reviewer for American Association for the Advancement of Science, Barclay Gibbs Jones Award for Best Dissertation in Planning, Island Press, National Science Foundation, U.S. Environmental Protection Agency, U.S. Fulbright Scholar Program, U.S. Global Change Research Program, U.S. National Oceanic and Atmospheric Administration, U.S. Office of Technology Assessment, U. of Pittsburgh Press, *AIMS Environmental Science*, *American J. of Agricultural Economics*, *Climate Policy*, *Climatic Change*, *Contemporary Economic Policy*, *Disasters*, *Environmental and Resource Economics*, *Environment and Planning C*, *Habitat International*, *Housing Policy Debate*, *Italian J. of Regional Science*, *J. of the American Planning Association*, *J. of the American Water Resources Association*, *J. of Environmental Planning & Management*, *J. of Environment & Development*, *J. of Photogrammetric Engineering & Remote Sensing*, *J. of Planning Education & Research*, *J. of Urban Affairs*, *J. of Water Resources Planning and Management*, *Local Environment*, *Marine Technology*, *Planning Practice & Research*, *Population & Environment*, *Public Works Management & Policy*, *Risk Analysis*, *Socio-Economic Planning Sciences*, *Sustainability*, *Water Policy*, and *Weather, Climate, and Society*
- Editorial Advisory Board, *Journal of Environmental Planning and Management*, 2008-present

Other Accomplishments *(continued)*

- Steering Committee, International Association of People-Environment Studies Conference, Tanzania, 2017
- Alumni Achievement Award, College of Arts and Sciences, Western Michigan University, 2013
- Track Co-Chair, Knowledge and Technology in Urban Development, *City Futures Conference*, European Urban Research Association and Urban Affairs Association, Spain, 2009
- Consultation, *Designing Brownfield Subsidies for Maximum Public Benefits*. Urban Land Institute and Center for Public Environmental Oversight, 2007
- Co-Organizer, *Workshop on Estimating Community Economic Impacts from the Reuse of Contaminated Properties*, Industrial Economics, USEPA, and Resources for the Future, 2004
- Co-Organizer, *Workshop on Interest Group Participation in Environmental Protection*, Resources for the Future and the Center for Russian Environmental Policy, 1999

University Service *(all at Virginia Tech)*

- Member, Promotion and Tenure Committee, College of Architecture & Urban Studies, 2014-2016, 2018-present
- Member, Urban Affairs and Planning Curriculum Committee, 2019-present
- Co-Director, Urban Affairs & Planning Program, 2013-2016
- Member, School of Public & International Affairs Executive Committee, 2012-2016
- Assistant Director, Urban Affairs & Planning Program, National Capital Region, 2012-2016
- Member, Masters of Urban and Regional Planning Admissions Committee, Urban Affairs and Planning, 2012-2016
- Member, Sponsored Research Group, School of Public & International Affairs, 2012-2016
- Institutional Representative, School of Public & International Affairs and Association of Public Policy Analysis and Management, 2009-2016
- Member, Faculty Search Committee, Urban Affairs & Planning, 2007, 2011-2014
- Member, Planning, Governance, and Globalization PhD Admissions Committee, School of Public & International Affairs, 2007-2011, 2015-2016

Teaching *(at Virginia Tech, unless otherwise indicated)*

- Advanced Quantitative Techniques Used In Urban Analysis*
- Computer Applications in Planning (GIS)*
- Environmental Planning for Open Space (studio)*
- Leadership in Global Sustainability: Negotiation and Climate Change*
- Measuring the Benefits of Brownfields Redevelopment (studio)*
- Planning Theory and Practice*
- Public Administration and Policy Inquiry*
- Quantitative Techniques in Planning (with Public Administration and Policy Inquiry)*
- Urban Environmental Policy, Planning, and Management Analysis in Developing and Transitioning Countries*
- Environmental Economics (Ardhi University)*

Teaching (continued)

Public Policy Analysis (Ardhi University)

Analysis and Governance of Sustainable Development (Venice International University)

Contemporary Europe Environmental Policy and Planning (Virginia Tech, Switzerland)

Completed Student Dissertations and Master's Capstone Projects (Committee Chair)

PhD Students:

A Transport Justice Evaluation of Employer-Based Transit Subsidies

Adoption of Green Stormwater Infrastructure

Master's Students

Adapting to Sea Level Rise in the US and Germany

Assessing the Washington DC Food Environment

Calvert County Growth Management

Carsharing Success Factors

Collaborative Public Planning in the U.S. Department of Interior

Equity of Park Provision: A GIS Analysis

Food Desert Mapping in Baltimore

Geospatial Analysis of Baltimore Food Access

Green Infrastructure Planning

Local Sustainability Initiatives

Neighborhood Conservation Planning

Operation Abandoned Housing

Prioritizing Open Space Conservation with GIS

Quenching Community Thirst

Regional Coast Climate Change Adaptation

Residential Property Values and Proximity to Parks

Safe Routes to (High) Schools

Skyscrapers and Sustainable Urban Building

State Forestry Program for Chesapeake Bay Health

Streetcar Stations and Property Values

Suburban Light Rail Transit

Sustainability in Shrinking Cities

Tourism Carrying Capacity

Urban Ecosystem Forest Classification

Vegetation Mapping for Wildlife Habitat Management

Washington, DC Park Equity

Externally Funded Projects

Caution: Heavy Load Ahead, National Science Foundation, Principal Investigator, 2017-2019

Urban Missing Data, UK Department for International Development, Coalition for Urban Transitions, and World Resources Institute, Investigator, 2017-2018

Coordinated, Behaviorally-Aware Recovery for Transportation and Power Disruptions, National Science Foundation, Co-Principal Investigator, 2017-2020

Externally Funded Projects (continued)

- Emergency Management in Rural America: Decision-Makers Use of Climate Science in Flood Planning and Management*, National Science Foundation, Principal Investigator, 2011-2017
- Seasonal Climate Signals: Developing a Community of Practice*, National Oceanic and Atmospheric Administration, Principal Investigator, 2013-2016
- Commuter Adaptation to Transportation Disruption in Hurricane Sandy's Aftermath*, National Science Foundation, Co-Principal Investigator, 2012-2013
- Green Infrastructure Assessment: Mapping and Evaluating the Support System for Green Infrastructure Planning*, U.S. Forest Service, Investigator, 2011-2013
- Commuter Risk Perceptions after the Washington DC Metrorail Collision*, National Science Foundation, Co-Principal Investigator, 2009-2010
- Research on Barriers and Facilitators for CBOs' Use of Vacant, Abandoned, and Contaminated Land*, Lincoln Institute of Land Policy, Co-Lead Investigator, 2006-2007
- Research Papers to Support Development of NCEE's Handbook on Benefits, Costs, and Impacts of Land Reuse*, U.S. Environmental Protection Agency, Investigator, 2006
- Active Living through Brownfield-to-Greenfield Conversions*, Robert Wood Johnson Foundation, Principal Investigator, 2005-2006
- Volunteering for State Cleanup Programs*, U.S. Environmental Protection Agency, Principal Investigator, 2005-2009
- Areawide Brownfield Regeneration through Business-Based Land Trusts and Progressive Finance*, Lincoln Institute of Land Policy, Principal Investigator, 2004-2005
- Regulating Abandoned Hardrock Mines: State Responses to a Federal Impasse*, Andrew W. Mellon Foundation, Co-Principal Investigator, 2004-2006
- Estimating Community Economic Impacts from the Reuse of Contaminated Properties*, U.S. Environmental Protection Agency, Investigator, 2003-2004
- Urban Regeneration through Environmental Remediation: Valuing Market-Based Incentives for Brownfields Development*, U.S. Environmental Protection Agency, Co-Principal Investigator, 2002-2005
- Brownfield Redevelopers' Perceptions of Environmental Insurance*, Lincoln Institute of Land Policy, Co-Investigator, 2001-2002
- Negotiating the Currents of Brownfields Regulation*, Andrew W. Mellon Foundation, Principal Investigator, 2000-2002
- La Niña Forecasts and Flood Management in the Pacific Northwest*, U.S. National Oceanic and Atmospheric Administration, Principal Investigator, 1999-2002
- Interest Group Participation in Environmental Protection*, U.S. Environmental Protection Agency, Co-Principal Investigator, 1999-2000
- Mid-Atlantic Geology and Infrastructure Case Study: Land Planning and Issue Analysis*, U.S. Geological Survey, Lead Investigator, 1997
- The Vulnerability of Low-Income Households to Hydrologic Responses to Climate Change*, U.S. Environmental Protection Agency, Principal Investigator, 1995-1998