

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, urban infrastructure

Contamination and Redevelopment: regulatory reform, institutional controls, mining

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

Kihila, Jacob, **Wernstedt**, Kris, & Mengiseny Kaseva. 2021. Waste Segregation and Potential for Recycling -A Case Study in Dar es Salaam City, Tanzania." *Sustainable Environment* 7 (1):1935532. doi: 10.1080/27658511.2021.1935532.

Mwanyoka, Iddi, Makarius Mdemu, and Kris **Wernstedt**. 2021. "The Reality of Local Community Participation in the Natural Gas Sector in Southeastern Tanzania." *The Extractive Industries and Society* 8(1), 303-315. doi.org/10.1016/j.exis.2020.12.003.

Roberts, Patrick S., Lucia Velotti, and Kris **Wernstedt**. 2020. "How Public Managers Make Tradeoffs Regarding Lives: Evidence from a Flood Planning Survey Experiment." *Administration & Society* July 2020. <https://doi.org/10.1177/0095399720944811>.

Wernstedt, Kris, Jacob Kihila, & Mengiseny Kaseva. 2020. "Biases and Environmental Risks in Urban Africa: Household Solid Waste Decision-Making." *Journal of Environmental Planning & Management* 63(11), 1946-1964. doi: 10.1080/09640568.2019.1691510.

Refereed Journal Articles (continued)

- Kaseva, Mengiseny, Kris **Wernstedt**, & Jacob Kihila. 2019. "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 & Management* 45(4), 485-495. doi.org/10.5276/JSWTM/2019.485.
- Murray-Tuite, Pamela, Elham Hajhashemi, Susan Hotle, & Kris **Wernstedt**. 2019. "Using Agent-Based Modeling to Evaluate the Effects of Hurricane Sandy's Recovery Timeline on the Ability to Work." *Transportation Research Part D: Transport & Environment* 77, 506-524. <https://doi.org/10.1016/j.trd.2019.08.011>.
- Wernstedt**, Kris, Patrick S. Roberts, Joseph Arvai, & Kelly Redmond. 2019. "How Emergency Managers (Mis?) Interpret Forecasts." *Disasters* 43(1), 88-109. <https://doi.org/10.1111/disa.12293>.
- Roberts, Patrick & 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., & 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, & Kris **Wernstedt**. 2017: "Duration of Commute Travel Changes in the Aftermath of Hurricane Sandy using Accelerated Failure Time Modeling." *Transportation Research Part A: Policy & Practice*. 100:170-181. <https://doi.org/10.1016/j.tra.2017.04.015>.
- Lyon, Thomas P., Haitao Yin, Allen Blackman, & Kris **Wernstedt**. 2017: "Voluntary Cleanup Programs for Brownfield Sites: A Theoretical Analysis." *Environmental & Resource Economics*. 1-26. <https://doi.org/10.1007/s10640-017-0121-z>.
- Kontou, Eleftheria, Pamela Murray-Tuite, & 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 & 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 & 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 & Fanny Carlet. 2014: "Climate Change, Urban Development, and Stormwater: Perspectives from the Field." *Journal of Water Resources Planning & 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**, & Weihao Yin. 2014: "Behavioral Shifts after a Fatal Rapid Transit Accident: A Multinomial Logit Model." *Transportation Research Part F: Traffic Psychology & Behaviour*, 24(0), 218-230. <https://doi.org/10.1016/j.trf.2014.04.014>.

Refereed Journal Articles (continued)

- Wernstedt**, Kris, Allen Blackman, Thomas P. Lyon, & 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, & Kris **Wernstedt**. 2012: "Incident-Induced Diversion Behavior: Existence, Magnitude, and Contributing Factors." *Journal of Transportation Engineering*, 138(10), 1239-1249.
- Wernstedt**, Kris & 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, & Kris **Wernstedt**. 2010: "What Drives Participation in State Voluntary Cleanup Programs? Evidence from Oregon." *Land Economics*, 86(4), 785-799.
- Dull, Mathew & 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 & Renewal*, 3(3), 216-232.
- Wernstedt**, Kris & 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, & Mathew Dull. 2009: "Can Climate Signals Inform Emergency Management? Preliminary Evidence." *Journal of Homeland Security & 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.
- Siikamäki, Juha & Kris **Wernstedt**. 2008: "Turning Brownfields into Greenspaces: Examining Incentives and Barriers to Revitalization." *J. of Health Politics, Policy, & Law*, 33(3), 559-593.
- Wernstedt**, Kris, Peter B. Meyer, & 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 & 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, & Lauren Heberle. 2006: "Incentives for Private Residential Brownfields Development in US Urban Areas." *Journal of Environmental Planning & Management*, 49(1), 101-119.
- Heberle, Lauren & Kris **Wernstedt**. 2006: "Understanding Brownfields Regeneration in the U.S." *Local Environment*, 11(5), 479-497.
- Wernstedt**, Kris & 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, & Kristen R. Yount. 2003: "Insuring Redevelopment at Contaminated Urban Properties." *Public Works Management & Policy*, 8(2), 85-98.

Refereed Journal Articles (continued)

- Wernstedt**, Kris & 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 & Management*, 45(4), 493-516.
- Hersh, Robert & Kris **Wernstedt**. 2002: "Gauging the Vulnerability of Local Water Utilities to Extreme Weather Events." *Journal of Environmental Planning & 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.
- Wernstedt**, Kris. 2000: "Plans, Planners, and Aggregates Mining: Constructing an Understanding." *Journal of Planning Education & 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 & 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, & Katherine Probst. 1999: "Grounding Hazardous Waste Cleanups: A Promising Remedy?" *Land Use Policy*, 16(1), 45-55.
- Wernstedt**, Kris & Robert Hersh. 1998: "Urban Land Use and Superfund Cleanups." *Journal of Urban Affairs*, 20(4), 459-474.
- Wernstedt**, Kris & 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 & Planning A*, 27(4), 645-662.
- Paulsen, Charles M. & Kris **Wernstedt**. 1995: "Cost-Effectiveness Analysis for Complex Managed Hydrosystems: An Application to the Columbia River Basin." *Journal of Environmental Economics & Management*, 28(3), 388-400.
- Wernstedt**, Kris & 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. & 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, & Tricia Wachtendorf. Cham: Springer Nature Switzerland. 261-275.
- Catney, Philip, Tiziana Cianflone, & 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 & Cynthia Jackson-Elmoore, eds. Farnham, Surrey, UK: Ashgate. 65-88.
- Wernstedt**, Kris, Patrick Roberts, & 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.
- Cianflone, Tiziana, & Kris **Wernstedt**. 2009: "Reducing Uncertainty in the Monetary Assessment of Environmental Liabilities from Waste Landfilling." In *Waste and Environmental Policy*, M. Mazzanti & A. Montini, eds. Milton Park, UK: Routledge. 161-189.
- Dewar, Margaret & Kris **Wernstedt**. 2009: "Challenges in Reusing Vacant, Abandoned, and Contaminated Properties." *Land Lines*, 21(2), 2-7.
- Wernstedt**, Kris & Juha Siikamäki. 2007: "Active Living through Converting Brownfields to Greenspaces." *Planning*, 73(2), A6.
- Wernstedt**, Kris & Peter B. Meyer. 2005: "What Do Developers Want?" *Brownfield News*, June, 12.
- Wernstedt**, Kris & Robert Hersh. 2004: "Reseeding the Turf." *Brownfield News & Regional Report*, May, 6-7.
- Meyer, Peter, Kris **Wernstedt**, & 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 & P.R. Portney, eds. Washington, DC: Resources for the Future. 82-86.
- Hersh, Robert & 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**, & 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*; *Ecological Economics*, *Environmental and Resource Economics*; *Environment and Planning C*; *Habitat International*; *Housing Policy Debate*; *Int. J. of Disaster Risk Reduction*, *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 Contingencies and Crisis Management*; *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*; *Transportation Research Part A*; *Water Policy*; and *Weather, Climate, and Society*

Editorial Advisory Board, *Journal of Environmental Planning and Management*, 2008-present

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, 2018-2020

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

University Service (continued)

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-present
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)
Knowledge, Theory, & Planning
Leadership in Global Sustainability: Negotiation and Climate Change
Measuring the Benefits of Brownfields Redevelopment (studio)
Planning Theory and Practice
Policy, Planning, and Management in Developing Countries
Public Administration and Policy Inquiry
Quantitative Techniques in Planning (with Public Administration and Policy Inquiry)
Survey Research Tools for Metropolitan Resilience
Urban Environmental Policy, Planning, and Management Analysis in Developing and Transitioning Countries
Environmental Economics (Ardhi University)
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

Master's Students' Capstones (continued)

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

EAGER: SAI: SmarTrail: An Infrastructure Services Framework for Sustainable Trail Management, National Science Foundation, Principal Investigator, 2021-2023
RAPID: Distancing & Digital Information in the Face of COVID-19, National Science Foundation, Investigator, 2020-2021
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
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

Externally Funded Projects (continued)

- 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