

**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

*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**

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 M. Kihila, and Mengiseny Kaseva. 2020. "Biases and Environmental Risks in Urban Africa: Household Solid Waste Decision-Making." *Journal of Environmental Planning and Management* 63 (11):1946-1964.

<https://doi.org/10.1080/09640568.2019.1691510>.

Kaseva, Mengiseny, Kris **Wernstedt**, and Jacob M. 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." *The Journal of Solid Waste Technology and Management* 45(4):485-495.

<https://doi.org/10.5276/JSWTM/2019.485> .

**Refereed Journal Articles (continued)**

- 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>.
- 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.

**Refereed Journal Articles (continued)**

- 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.
- 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.

**Refereed Journal Articles (continued)**

- 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.

**Book Chapters and Other Publications (continued)**

- 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*;

**Other Accomplishments (continued)**

- 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  
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)*  
*Leadership in Global Sustainability: Negotiation and Climate Change*  
*Measuring the Benefits of Brownfields Redevelopment (studio)*  
*Planning Theory and Practice*

**Teaching (continued)**

*Policy, Planning, and Management in Developing Countries*  
*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)*

*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**

- 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
- 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



***Externally Funded Projects (continued)***

*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