

CURRICULUM VITAE

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Urban Studies Institute | Andrew Young School of Policy Studies
Georgia State University, Atlanta, GA 30303

RESEARCH INTERESTS

Sustainable Urban Systems: Anticipatory Governance, Climate Adaptation and Mitigation, Co-Production Research, Participatory Modeling, Scenario Development, Social-Ecological-Technological Systems, Transformative Resilience, Transitions Research, Urban Ecology

EDUCATION AND PROFESSIONAL CREDENTIALS

EDUCATION

- 2013 Doctorate of Philosophy, Sustainability, Arizona State University
- 2008 Master of Science, Biological Sciences, Florida International University
- 2002 Bachelor of Science, Biological Sciences, Florida International University

PROFESSIONAL POSITIONS

- 2021– Associate Professor, Urban Studies Institute, Andrew Young School of Policy Studies, GSU, Atlanta, GA
- 2021– Affiliate Global Futures Scholar: Global Futures Laboratory, ASU, Tempe, AZ
- 2020– Faculty Affiliate: Department of Sociology, College of Arts and Sciences, GSU, Atlanta, GA
- 2018– Faculty Affiliate: Department of Geosciences, College of Arts and Sciences, GSU, Atlanta, GA
- 2017–2021 Assistant Professor, Urban Studies Institute, Andrew Young School of Policy Studies, GSU, Atlanta, GA
- 2016– Senior Sustainability Scientist, Julie Ann Wrigley Global Institute of Sustainability, ASU, Tempe, AZ
- 2016–2017 Research Assistant Professor, School of Sustainability, ASU, Tempe, AZ
- 2014–2015 Postdoctoral Researcher, Julie Ann Wrigley Global Institute of Sustainability, NSF Central Arizona–Phoenix Long Term Ecological Research (CAP LTER), ASU, Tempe, AZ
- 2012–2013 Research Technician, NSF Division of Information and Intelligent Systems, School of Computing, Informatics and Decision Systems Engineering, ASU, Tempe, AZ

2009 Visiting Instructor, Graduate Program in Sustainability Science - Global Leadership Initiative, University of Tokyo (UT), Kashiwa, Japan

FELLOWSHIP AND AWARDS

2022 Mercator Fellow, DFG Mercator programme, German Research Foundation

2020 Dean's Early Career Award, Andrew Young School of Policy Studies, GSU

2018 Signature Experience Course Development Award, GSU

2016 Sustainability Scientists and Scholars Award, ASU

2011 President's Award for Sustainability, ASU

2008 NSF Integrative Graduate Education and Research Traineeship (IGERT) Urban Ecology Fellow

2003 U.S. Environmental Protection Agency (EPA) STAR Fellow

SCHOLARSHIP

EXTERNALLY FUNDED RESEARCH PROJECTS

2022–2028* NSF Long Term Ecological Research. CAP V: Investigating how relationships between urban ecological infrastructure and human-environment interactions shape the structure and function of urban ecosystems (Leadership Team, sub-awardee PI; \$7,650,000, *in review)

2022–2025 NSF GERMINATION. Center for Urban Transformations at Georgia State University (Director, PI; \$499,976)

2022–2024 NSF Supplement. Growing Convergence Research (Co-PI, Executive Management Team; \$53,765)

2021–2024 NSF Supplement. Growing Convergence Research (Co-PI, Executive Management Team, sub-awardee PI; \$390,000)

2019–2024 NSF Growing Convergence Research. SETS Convergence GCR: Social, Ecological, and Technological Infrastructure Systems for Urban Resilience (Co-Director, Co-PI, Executive Management Team, sub-awardee PI; \$3,699,349)

2019–2020 Ray C. Anderson Foundation. Drawdown Georgia (Co-I, sub-awardee PI; \$1,000,000)

2018–2022 NSF Long Term Ecological Research. CAP LTER IV: Investigating urban ecology and sustainability in Phoenix through the lens of urban ecological infrastructure (Leadership Team, sub-awardee PI)

2018–2019 Food Well Alliance. Mapping Atlanta's Local Food Network (Co-I; \$35,000)

- 2017–2020 NSF International Research Experience for Students. IRES: Interdisciplinary student research on urban resilience in Latin America (Co-I; \$249,705)
- 2017–2019 NSF Smart and Connected Communities. S&CC-Planning: Building resilient coastal cities through smart and connected communities (Co-I; \$99,867)
- 2016–2019 NSF Long Term Ecological Research. CAP LTER: "Design with nature" infrastructure in Phoenix: A research framework for exploring urban ecology and sustainability (Leadership Team, sub-awardee PI; \$2,254,000)
- 2015–2022 NSF Sustainability Research Network. UREx SRN: Urban resilience to climate change-driven extreme events (Executive Management Team, sub-awardee PI; \$11,999,692)
- 2014–2015 International Social Science Council (ISSC) Transformations to Sustainability Programme. Future urban transformations of under-governed resources by engaging stakeholders (P-FUTURES) (Co-Director, Co-PI; \$38,105)
- 2010–2011 NSF LTER Network. Identifying the benefits and barriers to cross-site social-ecological research in urban systems (PI; \$8,100)
- 2010–2011 Frontiers in Life Science Conference Series, ASU. Phosphorus, food, & our future—An international summit about closing the human phosphorus cycle (Co-PI; \$30,000)
- 2008–2012 NSF Integrative Graduate Education and Research Traineeship (IGERT). Urban Ecology (Fellowship; \$133,000)
- 2005–2006 National Center for Ecological Analysis and Synthesis (NCEAS). Quantifying success in environmental management using ecosystem services valuation techniques—A joint session between the Ecosystem-based Management and Ecosystem Services NCEAS working groups (Co-PI; \$9,800)
- 2003-2005 U.S. Environmental Protection Agency (EPA) STAR. Regulation of structure and function of periphyton from the Florida Everglades, USA (PI; \$87,452)

PUBLICATIONS: REFEREED SCHOLARLY

McPhearson, T., E.M. Cook, M. Barbés-Blázquez, C. Cheng, N.B. Grimm, E. Andersson, O. Barbosa, D.G Chandler, H. Chang, M. Chester, D.L. Childers, S. Elser, N. Frantzeskaki, Z. Grabowski, P. Groffman, R.L. Hale, D.M. Iwaniec, et al. (2022) A Social-Ecological-Technological Systems Framework for Urban Ecosystem Services. *One Earth*, 5(5):505–518

Sauer J., O. Barbosa, E.M. Cook, N.B. Grimm, C. Lamarca, J. Maira, A. Schueftan, D.M. Iwaniec (2022) Envisioning future scenarios to manage pluvial flooding in social-ecological-technological systems. In: Shandas V. and D. Hellman (Eds.) *Collaborating for Climate Equity: Researcher–Practitioner Partnerships in the Americas*. Routledge

Iwaniec, D.M., M. Gooseff, K. Suding, D. Johnson, D. Reed, D. Peters, B. Adams, J. Barrett, B. Bestelmeyer, M. Castorani, E.M. Cook, M.J. Davidson, P. Groffman, N. Hanan, L. Huenneke, P. Johnson, D. McKnight, R. Miller, G. Okin, D. Preston, A. Rassweiler, C. Ray, O. Sala, R. Schooley, T. Seastedt, M. Spasojevic, E. Vivoni. (2021) Future trajectories for ecosystems of the U.S. Long Term Ecological Research Network: The importance of connectivity. *Ecosphere*, 12(5):e03432

Muñoz-Erickson, T.A., S. Meerow, R. Hobbins, E.M. Cook, D.M. Iwaniec, M. Berbés-Blázquez, N.B. Grimm, A. Barnett, J. Cordero, G. Changdeok, T.R. Miller, F. Tandazo-Bustamante, A. Robles-Morúa. (2021) Beyond bouncing back? Comparing and contesting urban resilience frames in US and Latin American contexts. *Landscape and Urban Planning*, 214:104173

Iwaniec, D.M., N.B. Grimm, M. Berbés-Blázquez, E.M. Cook, Z. Hamstead, T. McPhearson, T.A. Muñoz-Erickson (2021) A framework for resilient urban futures: Linking the past, present, and future. In Hamstead, Z., D.M. Iwaniec, T. McPhearson, M. Berbés-Blázquez, E.M. Cook, T.A. Muñoz-Erickson. (Eds.) *Resilient Urban Futures*. Springer-Nature

Kim, Y, L. Mannetti, D.M. Iwaniec, N.B. Grimm, M. Berbés-Blázquez, S. Markolf. (2021) Social, ecological, and technological strategies for climate adaptation. In Hamstead, Z., D.M. Iwaniec, T. McPhearson, M. Berbés-Blázquez, E.M. Cook, T.A. Muñoz-Erickson. (Eds.) *Resilient Urban Futures*. Springer-Nature

Iwaniec, D.M., M. Berbés-Blázquez, E.M. Cook, N.B. Grimm, L. Mannetti, T. McPhearson, T.A. Muñoz-Erickson (2021). Positive futures. In Hamstead, Z., D.M. Iwaniec, T. McPhearson, M. Berbés-Blázquez, E.M. Cook, T.A. Muñoz-Erickson. (Eds.) *Resilient Urban Futures*. Springer-Nature

Cook, E.M., M. Berbés-Blázquez, N.B. Grimm, D.M. Iwaniec, L. Mannetti, T.A. Muñoz-Erickson. (2021) Setting the stage for meaningful co-production. In Hamstead, Z., D.M. Iwaniec, T. McPhearson, M. Berbés-Blázquez, E.M. Cook, T.A. Muñoz-Erickson. (Eds.) *Resilient Urban Futures*. Springer-Nature

Berbés-Blázquez, M., N.B. Grimm, E.M. Cook, D.M. Iwaniec, T.A. Muñoz-Erickson, V. Verduzco, D. Wahl. (2021) Assessing future resilience, equity, and sustainability in scenario planning. In Hamstead, Z., D.M. Iwaniec, T. McPhearson, M. Berbés-Blázquez, E.M. Cook, T.A. Muñoz-Erickson. (Eds.) *Resilient Urban Futures*. Springer-Nature

Muñoz-Erickson, T.A., K. Selkirk, R.J. Hobbins, C. Miller, M. Feagan, D.M. Iwaniec, T.R. Miller, E.M. Cook. (2021) Anticipatory resilience: Bringing back the future into urban planning and knowledge systems. In Hamstead, Z., D.M. Iwaniec, T. McPhearson, M. Berbés-Blázquez, E.M. Cook, T.A. Muñoz-Erickson. (Eds.) *Resilient Urban Futures*. Springer-Nature

McPhearson, T., D.M. Iwaniec, Z. Hamstead, M. Berbés-Blázquez, E.M. Cook, T.A. Muñoz-Erickson, L. Mannetti, N.B. Grimm. (2021) A vision for resilient urban futures. In Hamstead, Z., D.M. Iwaniec, T. McPhearson, M. Berbés-Blázquez, E.M. Cook, T.A. Muñoz-Erickson. (Eds.) *Resilient Urban Futures*. Springer-Nature

Chang, H., A. Pallathadka, J. Sauer, N.B. Grimm, R. Zimmerman, C. Cheng, D.M. Iwaniec, Y. Kim, R. Lloyd, T. McPhearson, B. Rosenzweig, T. Troxler, C. Welty, R. Brenner, P. Herreros-Cantis. (2021) Assessment of urban flood vulnerability using the social-ecological-technological systems framework in six US cities. *Sustainable Cities and Society*, 102786

Brown, M.A., B. Beasley, F. Atalay, K.M. Cobb, P. Dwivedi, J. Hubbs, D.M. Iwaniec, S. Mani, D. Matisoff, J. Mohan, M. Oxman, D. Rochberg, M. Rodgers, M. Shepherd, R. Simmons, L. Taylor, L.B. Toktay, J. Mullen. (2021) Translating a global emissions reduction framework for sub-national climate action: a case study from the state of Georgia. *Environmental Management*

Iwaniec, D.M. (2021) The present tense of long-term thinking. In Derrible S. and M. Chester. (Eds.) *Urban Infrastructure: Reflections for 2100*. RIL, ISBN 979-8695826524

Sampson, D., E.M. Cook, M.J. Davidson, N.B. Grimm, D.M. Iwaniec. (2020) Simulating sustainable urban water futures. *Sustainability Science*, 15(4):1199–1210

Iwaniec, D.M., E.M. Cook, M.J. Davidson, M. Berbés-Blázquez, N.B. Grimm. (2020) Integrating existing climate adaptation planning into future visions: A strategic scenario for the central Arizona–Phoenix region. *Landscape and Urban Planning*, 200:103820

Iwaniec, D.M., E.M. Cook, M.J. Davidson, N.B. M. Berbés-Blázquez, M. Georgescu, E.S. Krayenhoff, X. Li, A. Middel, D.A. Sampson, N.B. Grimm. (2020) The co-production of sustainable future scenarios. *Landscape and Urban Planning*, 197:103744s

Raudsepp-Hearne C., G. Peterson, E. Bennett, O. Biggs, A. Norstrom, L. Pereira, J. Vervoort, D.M. Iwaniec, T. McPhearson, T. Hichert. (2019) Seeds of good Anthropocenes: Developing sustainability scenarios for Northern Europe. *Sustainability Science*, 15:605–617

Iwaniec, D.M., E.M. Cook, O. Barbosa, N.B. Grimm. (2019) The framing of urban sustainability transformations. *Sustainability*, 11(3):573

Markolf, S.A., M.V. Chester, D.A. Eisenberg, D.M. Iwaniec, C.I. Davidson, R. Zimmerman, T.R. Miller, B.L. Ruddell, H. Chang. (2018) Interdependent infrastructure as linked social, ecological, and technological systems (SETSs) to address lock-in and improve resilience. *Earth's Future*, 6(12):1638–1659

Rosenzweig, B.R., L. McPhillips, H. Chang, C. Cheng, C. Welty, M. Matsler, D.M. Iwaniec, C.I. Davidson. (2018) Pluvial flood risk and opportunities for resilience. *WIREs Waters*, 5(6):e1302

McPhearson, T., D.M. Iwaniec, B. Xuemei. (2017) Positives visions for guiding transformations toward desirable urban futures. *Current Opinion in Environmental Sustainability*, 22:1–8

van Riper, C.J., A.C. Landon, S. Kidd, P. Bitterman, L.A. Fitzgerald, E.F. Granek, S. Ibarra, D.M. Iwaniec, C.M. Raymond, D. Toledo. (2017) Incorporating sociocultural phenomena into ecosystem-service valuation: The importance of critical pluralism. *BioScience*, 67(3):233–244

Iwaniec, D.M., G.S. Metson, D. Cordell. (2016) Towards urban food and water security through collaborative design and impact. *Current Opinion in Environmental Sustainability*, 20:1–7

- Muñoz-Erickson, T.A., L. Campbell, D.L. Childers, M. Grove, D.M. Iwaniec, E. Svenden, S.T.A. Pickett, M. Romolini. (2016) Demystifying governance and its role for transitions in urban social-ecological systems. *Ecosphere*, 7(11):1–11
- Cordell, D., G.S. Metson, D.M. Iwaniec. (2016) Transforming cities: Securing food and clean waterways through phosphorus governance. In Fam, D., J. Palmer, C. Mitchell, C. Riedy (Eds.) *Transdisciplinary Research and Practice for Sustainable Outcomes*. Taylor & Francis
- Grimm, N.B., E.M. Cook, R.L. Hale, D.M. Iwaniec. (2015) A broader framing of ecosystem services in cities: benefits and challenges of built, natural, or hybrid system function. In Seto, K.C., W.D. Solecki, C.A. Griffith (Eds.) *The Routledge Handbook on Urbanization and Global Environmental Change*. Taylor & Francis
- McHale, M.R., S.T.A. Pickett, O. Barbosa, D.N. Bunn, M.L. Cadenasso, D.L. Childers, M. Gartin, G. Hess, D.M. Iwaniec, T. McPhearson, M.N. Peterson, A.K. Poole, L. Rivers III, S.T. Shuttles. (2015) The new global urban realm: Complex, connected, diffuse, and diverse social-ecological systems. *Sustainability*, 7(5):5211–5240
- Turner, K., K. Benessaiah, S. Warren, D.M. Iwaniec. (2015) Essential tensions in interdisciplinary scholarship: Navigating challenges in affect, epistemologies, and structure in environment-society research centers. *Journal of Higher Education*, 70(4):649–665
- Metson, G.S., D.M. Iwaniec, L. Baker, E.M. Bennett, D.L. Childers, D. Cordell, N.B. Grimm, J.M. Grove, D. Nidzgorski, S. White. (2015) Urban phosphorus sustainability: Systemically incorporating social, ecological, and technological factors into phosphorus flow analysis. *Environmental Science & Policy*, 47:1–11
- Iwaniec, D.M., A. Wiek. (2014) Advancing sustainability visioning practice in planning—the General Plan Update in Phoenix, AZ. *Planning Practice and Research*, 29(5):543–568
- Iwaniec, D.M., D.L. Childers, K. VanLehn, A. Wiek. (2014) Studying, teaching, and applying sustainability visions using systems modeling. *Sustainability*, 6(7):4452–4469
- Wiek, A., D.M. Iwaniec. (2014) Quality criteria for visions and visioning in sustainability science. *Sustainability Science*, 9(4):497–512
- Childers, D.L., Z. Caple, C. Carlielle-Marquet, D. Cordell, V. Gerhart, D.M. Iwaniec, S. White. (2013) Future scenarios for the global sustainable use of P. In Elser, J., K. Wyant, J. Corman (Eds.) *Phosphorus, Food, Our Futures*. Oxford Press
- Metson, G.S., R.L. Hale, D.M. Iwaniec, E.M. Cook, J. Corman, C. Galletti, D.L. Childers. (2012) Phosphorus in Phoenix: A budget and spatial representation of phosphorus in an urban ecosystem. *Ecological Applications*, 22(2):705–721
- Grimm, N.B., R.L. Hale, E.M. Cook, D.M. Iwaniec. (2011) Urban biogeochemical flux analysis. In Douglass, I., D. Goode, M.C. Houck, R. Wang (Eds.) *The Routledge Handbook of Urban Ecology*. Taylor & Francis

Iwaniec, D.M., D.L. Childers, D. Rondeau, C.J. Madden. (2006) Effects of hydrologic and water quality drivers on periphyton dynamics in the southern Everglades. *Hydrobiologia*, 569(1):223–235

Childers, D.L., D.M. Iwaniec, D. Rondeau, G. Rubio, E. Verdon C.J. Madden. (2006) Responses of sawgrass and spikerush to variation in hydrologic drivers and salinity in Southern Everglades marshes. *Hydrobiologia*, 569(1):273–292

Ewe, S.M.L., E.E. Gaiser, D.L. Childers, V.H. Rivera-Monroy, D.M. Iwaniec, R.R. Twilley. (2006) Spatial and temporal patterns of aboveground net primary productivity along two freshwater-estuarine transects in the Florida Coastal Everglades. *Hydrobiologia*, 569(1):459–474

BOOKS

Hamstead, Z., D.M. Iwaniec, T. McPhearson, M. Berbés-Blázquez, E.M. Cook, T.A. Muñoz-Erickson. (2021) *Resilient Urban Futures*. Springer-Nature, ISBN 978-3-030-63131-4

SELECTED SERVICE ACTIVITIES

- 2022– Member: Building Resilience to Known Threats and Unknown Unknowns, Moving Teams Forward, Georgia Institute of Technology (transdisciplinary research team)
- 2022– Member: Stewardship Community of Practice, U.S. Forest Service (transdisciplinary research team)
- 2022– Director: Center for Urban Transformations at Georgia State University; Member: Leadership Management Team, NSF GERMINATION (transdisciplinary research team)
- 2021– Vice Chair: US-NSF LTER Representative to the International Long Term Ecological Research (ILTER) Network (international research team)
- 2021– Track Chair: International Sustainable Research Society. Urban and Regional Transformations (international research team)
- 2020– Member: Urban Multisector Dynamics, National Renewable Energy Laboratory (NREL), U.S. Department of Energy (DOE) (interdisciplinary research team)
- 2020– Research Program Co-Lead: Nature-based Pathways, Nature-based Solutions for Urban Resilience in the Anthropocene (NSF NATURA) Network (international, transdisciplinary research team)
- 2019– Research Program Lead: Beyond Carbon Working Group, Drawdown Georgia (transdisciplinary research team)
- 2019– Member: NSF NATURA Network and NATURA North America Regional Node (international, transdisciplinary research team)

- 2019– Co-Director: SETS Convergence Network; Member: Executive Management Team, NSF SETS Convergence (international, transdisciplinary research team)
- 2019 Review Panelist: 2019 Stories of The Nature of Cities Prize, The Nature of Cities
- 2019 Member: Positive Futures Task Force, Stockholm Resilience Centre/ Wallenberg, Stanford University (international, transdisciplinary research team)
- 2018– Member: US-NSF LTER Representative to ILTER Network (international, interdisciplinary research team)
- 2018– University Representative and Strand Lead: Building Smart Resilient Cities, Coalition of Urban Serving Universities, GSU
- 2018– University Representative and Member: Research Committee, United Nations University Regional Centres of Expertise: Greater Atlanta (interdisciplinary research team)
- 2018–2020 Member: City of Atlanta Urban Ecology Framework Technical Advisory Committee, Atlanta, GA
- 2018–2022 Research Program Co-Lead: Governance Working Group, NSF UREx SRN (international, transdisciplinary research team)
- 2018–2021 Member: Conference Organizing Committee, NSF SRN Urban Resilience to Extreme Events All-Hands Meeting (international conference)
- 2018 Session Chair: Co-producing Urban Resilience to Extreme Events, IFoU: Reframing Urban Resilience Implementation: Aligning Sustainability and Resilience, Barcelona, Spain (international conference)
- 2018 Workshop Co-lead: Understanding and responding to extreme weather events in ecosystems and social-ecological-technological systems, NSF LTER All Scientists Meeting, Asilomar, CA
- 2018 Workshop Co-lead: LTER scenarios, NSF LTER All Scientists Meeting, Asilomar, CA
- 2018 Panelist: Scholars Philanthropy Program, Community Foundation, Atlanta, GA
- 2017– Member: Seeds of a Good Anthropocene, Stockholm Resilience Centre, Stockholm, Sweden (international research team)
- 2017–2022 Research Program Lead: Futures and Scenarios Interdisciplinary Research Theme, NSF CAP LTER, ASU, Tempe, AZ (transdisciplinary research team)
- 2017–2018 Member: Conference Organizing Committee, NSF SRN Urban Resilience to Extreme Events All-Hands Meeting (international conference)
- 2017 Session Chair: Visioning Urban Transformations, Cities and Climate, Potsdam, Germany (international conference)

- 2016–2017 Member: Transdisciplinary Food-Energy-Water Design Team, Advancing NSF-Belmont Forum’s collaborative research action on urbanization and the food-energy-water nexus, Boulder, CO (international research team)
- 2016 Delegate: ASU Science Diplomacy Delegation to Cuba, Havana, Cuba (international, transdisciplinary research team)
- 2015– Member: Leadership Team, NSF CAP LTER (interdisciplinary research team)
- 2015–2022 Research Program Lead: Scenarios Working Group, NSF UREx SRN (international, transdisciplinary research team)
- 2015– Member: Executive Management Team, NSF UREx SRN (international, transdisciplinary research team)
- 2015–2017 Research Program Co-Lead: Synthesis Interdisciplinary Research Theme (IRT), NSF CAP LTER, ASU, Tempe, AZ (transdisciplinary research team)
- 2014– Research Program Lead: Sustainable Futures Scenarios, Global Institute of Sustainability, ASU, Tempe, AZ (transdisciplinary research team)
- 2014–2017 Co-Director: P-FUTURES, ISSC Transformations to Sustainability Programme (international, interdisciplinary research team)
- 2014–2017 Research Program Lead: Urban Futures Working Group, NSF Urban Sustainability Research Coordination Network (international, interdisciplinary research team)
- 2014–2015 Member: Transformative Knowledge Network, ISSC (international, interdisciplinary research team)
- 2013–2014 Research Program Co-Lead: Urban Flux and Flows Working Group, NSF Urban Sustainability Research Coordination Network (international, interdisciplinary research team)