

YOLANDA J. MCDONALD, Ph.D.
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CURRENT APPOINTMENT:

Aug 2017 Assistant Professor, Human & Organizational Development, Peabody College,
Vanderbilt University

Lead Investigator, Vanderbilt Drinking Water Justice Lab

Faculty Affiliate, Program in Climate and Environmental Studies, Vanderbilt
University

AREAS OF SPECIALIZATION:

Health Geography, Drinking Water Justice, Environmental Justice, Health Disparities, Health
Inequalities, HealthGIS, Social Determinants of Health, Spatial Epidemiology

EDUCATION:

2017 **Ph.D. Texas A&M University, College Station, Texas, Geography**
Dissertation: *An Intersectionality Approach to Assessing the Landscape Across
the Cervical Cancer Continuum of Cancer: Geographic and Sociodemographic
Inequalities in New Mexico* (Advisor: Daniel W. Goldberg)

2012 **M.A. The University of Texas at El Paso, El Paso, Texas, Sociology**
Thesis: *Lacking a connection to a community water system: Water quality and
human health impacts in El Paso Colonias* (Advisor: Sara E. Grineski)

2009 **B.A. The University of Texas at El Paso, El Paso, Texas, Multidisciplinary
Studies**

PROFESSIONAL EXPERIENCE:

July – Aug 2016 Lecturer, Department of Sociology & Anthropology, The University of Texas at
El Paso

Jan – Aug 2015 Research Assistant, Department of Geography, Texas A&M University

Aug – Dec 2014 Lab Instructor, Department of Geography, Texas A&M University

Jan – Aug 2014 Research Assistant, Department of Geography, Texas A&M University

Aug – Dec 2013 Lab Instructor, Department of Geography, Texas A&M University

June – July 2013 Visiting Scholar, Department of Sociology & Anthropology, The University of
Texas at El Paso

May – June 2013 Research Assistant, Department of Geography, Texas A&M University

Jan – May 2013	Teaching Assistant/Field Workshop Coordinator, Department of Geography, Texas A&M University
Aug – Dec 2012	Lab Instructor & Teaching Assistant, Department of Geography, Texas A&M University
June 2011 – Aug 2012	Research Assistant, Department of Sociology & Anthropology, The University of Texas at El Paso
Jan – Dec 2011	Research Consultant, Pan American Health Organization/World Health Organization's <i>Colonias Initiatives Program</i>

HONORS:

Health Disparities Research Institute Scholar, National Institutes of Health (NIH) National Institute on Minority Health and Health Disparities (2018)

Junior Faculty Teaching Fellowship, Vanderbilt University (2018-2019)

Southeastern Conference (SEC) Faculty Travel Grant. \$1,800. (2018-2019).

Ford Foundation Dissertation Fellowship Award (2016 – 2017)

American Association of University Women Dissertation Fellowship Award (*Declined*) (2016 – 2017)

Alliance for Graduate Education and the Professoriate Ambassador Award, Office of Graduate and Professional Studies, Texas A&M University (2016)

University of New Mexico Cancer Center Graduate Fellowship Award, University of New Mexico (sponsor), National Institutes of Health (prime sponsor) (2015 – 2016)

Doctoral Graduate Diversity Fellowship Award, College of Geosciences, Texas A&M University (2012 – 2015)

Outstanding Graduate Student in Sociology, The University of Texas at El Paso Honors Convocation Award (2011-2012)

Certifications

Center for the Integration of Research, Teaching, and Learning of the College Classroom Teaching: Integration of Research, Teaching and Learning Course. Office of Graduate and Professional Studies, Texas A&M University, College Station, TX. (2016)

AFFILIATIONS:

Membership in Professional Societies

AcademyHealth (2018 - present)

American Association for the Advancement of Science (2016 - present)

American Association of Geographers (2011 - present)

American Public Health Association (2013 - present)

American Water Resources Association (2020 – present)

American Water Works Association (2011 - present)

Council of State and Territorial Epidemiologists (2013 - present)

Gamma Theta Upsilon (2015 - present)

Water Environment Federation (2020 - present)

PUBLICATIONS:

Articles in Refereed Journal

McDonald, Y.J., Anderson, K.M.,¹ Caballero, M.D.,¹ Ding, K.J., Fisher, D., Morkel, C.,² and Hill, E. (2022). A systematic review of geospatial representation of United States drinking community water system service areas. *AWWA Water Science*, <https://doi.org/10.1002/aws2.1266>.

Landy, R., Mathews, C., Robertson, M., Wiggins, C., **McDonald, Y.J.**, Goldberg, D.W., Scarinci, I.C., Cuzick, J., Sasieni, P.D., Wheeler, C.W. for the New Mexico HPV Pap Registry Steering Committee (2020). A state-wide population-based evaluation of cervical cancers arising during opportunistic screening in the United States. *Gynecologic Oncology* (159), 343-353.

Landy, R., Sasieni, P.D., Matthews, C., Wiggins, C.L., C., Robertson, M., **McDonald, Y.J.**, Goldberg, D.W., Scarinci, I.C., Cuzick, J., and Wheeler, C.M. for the New Mexico HPV Pap Registry Steering Committee (2019). Impact of screening on cervical cancer incidence. A population-based case-control study in the United States. *International Journal of Cancer* 147 (3), 887-896.

McDonald, Y.J. and Jones, N.E. (2018). Drinking water violations and environmental justice in the United States, 2011-2015. *American Journal of Public Health* 108(10), 1401-1407.

McDonald, Y.J., Schwind, M., Goldberg, D.W., Lampley, A., and Wheeler, C.M. (2017). An Analysis of the Process and Results of Manual Geocode Correction. *Geospatial Health: Health Applications in Geospatial Science* 12 (526), 84-89.

McDonald, Y.J., Goldberg, D.W., Scarinci, I.C., Castle, P.E., Cuzick, J., Robertson, M., and Wheeler, C.M. on behalf of the New Mexico HPV Pap Registry Steering Committee. (2017). Health service accessibility and risk in cervical cancer prevention: Comparing rural versus non-rural residence in New Mexico. *The Journal of Rural Health* 33 (4), 382-392.

McDonald, Y.J., Grineski, S.E., Collins, T.W., and Kim, Y.A. (2015). A scalable climate health justice assessment model. *Social Science & Medicine* 133, 242-252.

Grineski, S.E., Collins, T.W., **McDonald, Y.J.**, Aldouri, R., Aboargob, F., Eldeb, A., Romo, L., and Velázquez-Angulo, G. (2015). Double exposure and the climate gap: Changing demographics and extreme heat in Ciudad Juárez, Mexico. *Local Environment: The International Journal of Justice and Sustainability* 20 (2), 180-201.

Grineski, S.E., Chakraborty, J., Collins, T. W. and **McDonald, Y.J.** (2013). Environmental health injustice: Exposure to air toxics and children's respiratory hospital admissions. *The Professional Geographer* 65 (1), 31-46.

McDonald, Y.J. and Grineski, S.E. (2012). Disparities in access to residential plumbing: A bi-national comparison of environmental injustice in El Paso and Ciudad Juárez. *Population and Environment* 32 (4), 376-387.

Collins, T.W., Grineski, S.E, Chakraborty, J., and **McDonald, Y.J.** (2011). Understanding environmental health inequalities through comparative intracategorical analysis: Racial/ethnic disparities in cancer risks from air toxics in El Paso County, Texas. *Health & Place* 17 (1), 335-344.

Grineski, S.E and **McDonald, Y.J.** (2011). Mapping the uninsured using secondary data: An environmental justice application in Dallas. *Population and Environment* 32 (4), 376-387.

Revise and Resubmit

Paxton, C.,⁴ Anderson, K.,¹ and **McDonald, Y.J.** A quantitative analysis of workforce retention factors among water professionals in Tennessee. *Utilities Policy*.

Caballero, M.D.,¹ Gunda, T., Gilligan, J., and **McDonald, Y.J.** Pollution in the Press: Employing Text Analytics to Understand Regional Water Quality Narratives. *Frontiers*.

Public Scholarship

Paxton, C.,⁴ Anderson, K.M.,¹ and **McDonald, Y.J.** on behalf of the Vanderbilt University Drinking Water Justice Lab (Spring 2021) The Tennessee Public Water Operator Survey. *Tennessee Utility News; Technology Issue* (35), 36-39.

Allison, K., Anderson, K.M.,¹ Caballero, M.,¹ and **McDonald, Y.J.** (July 21, 2020). Professionals who keep our water safe deserve recognition. *The Tennessean, Opinion Section*.

¹Ph.D. student at Vanderbilt University; ²MPH Vanderbilt School of Medicine; ³Ph.D. student at the University of Missouri, ⁴Undergraduate student at Vanderbilt University

Book Chapters

Lachica, J., Castenada, E., and **Y.J. McDonald.** (2013). Poverty, place, and health along the US-Mexico Border. In K. Fitzpatrick (Ed.) *Poverty and health: crisis among America's Most Vulnerable*, (pp. 87-104). Goleta, CA: ABC-CLIO.

Velázquez-Angulo, G., Aldouri, R., Collins, T.W., Grineski, S.E., Romo, L., M., Aboargob, F., Eldeb, A., **McDonald, Y.J.**, and F. Poblano-Amparán. (2012). Characterizing climate change risks and informing adaptation strategies in the Ciudad Juárez-El Paso metropolitan region based on spatial analyses of extreme heat–vegetation abundance–population vulnerability relationships. In E. Sánchez Flores and R.E. Díaz Caravantes (Eds.) *Dinámicas locales del cambio ambiental global: Aplicaciones de percepción remota y análisis espacial en la evaluación del territorio* (pp. 155-178). Ciudad Juárez, Chihuahua, México: Universidad Autónoma de Ciudad Juárez Press.

SELECTED CONFERENCE PRESENTATIONS:

- 2021 Anderson, K.M.,¹ Gasteyer, S., Lander, P., Manners, J., and VanDerslice, J. *Utilizing Collaboration to Address the Complexities of Drinking Water* (Panel Discussion); Moderated by **McDonald, Y.J.** Organized by McDonald, Y.J. and Anderson, K.M.¹; American Association of Geographers Annual Virtual Conference.
- 2021 Anderson, K.M.¹ and **McDonald, Y.J.** *Operators Know Best: Utilizing Public Water System Operators to Understand Technical, Managerial, and Financial Challenges Facing Community Water Systems in Tennessee* (oral); Organized by Anderson, K.M.¹ and McDonald, Y.J.; Discussant: VanDerslice, J.; American Association of Geographers Annual Virtual Conference.
- 2021 Kim, A.,⁴ Manapat, A.,⁴ Caballero, M.,¹ Semenov, D.,⁴ **McDonald, Y.J.** *So Exactly Where Are Community Water Systems Located?* (oral); Organized by Anderson, K.M.¹ and McDonald, Y.J.; Discussant: VanDerslice, J.; American Association of Geographers Annual Virtual Conference.
- 2021 Caballero, M.D.,¹ Gunda, T., **McDonald, Y.J.**, and Gilligan, J.M. *Pollution in the Press: Employing Text Analytics to Understand Regional Water Quality Narratives* (oral); Organized by Anderson, K.M.¹ and McDonald, Y.J.; Discussant: VanDerslice, J.; American Association of Geographers Annual Virtual Conference.
- 2021 **McDonald, Y.J.**, Murray, E.,³ Preetam, C., Allison, K., McKane, R., and Hill, E. *Health-Based Drinking Water Violations: A Human Body Systems Framework to Understanding Human Health* (oral); Organized by Anderson, K.M.¹ and McDonald, Y.J.; Discussant: VanDerslice, J.; American Association of Geographers Annual Virtual Conference.
- *2020 Caballero, M.,¹ Gunda, T., **McDonald, Y.J.**, Gilligan, J.M. *Pollution in the Press: Employing Text Analysis to Understand Regional Water Quality Metrics* (poster), American Geophysical Union Virtual Annual Conference.
- *2020 **McDonald, Y.J.** *Demystifying Community Water Systems Location: A Case Study in Tennessee* (oral), American Water Resources Association Virtual Annual Conference.
- *2020 Anderson, K.M.¹ and **McDonald, Y.J.** *Unmasking Differences: How Using the Correct Unit of Analysis in Geospatial Drinking Water Research Has the Potential to Reveal Community-Level Differences* (oral: co-presenter), Applied Geography Virtual Annual Conference.
- *2019 **McDonald, Y.J.** and Anderson, K.M.⁵ *A Community-Based Participatory Research Approach: Collaborating with Key Tennessee Drinking Water Stakeholders to Understand Community Water Systems* (oral: co-presenter), Applied Geography Annual Conference, Charlotte, NC.

- 2019 **McDonald, Y.J.** *Tennessee Community Water Systems Operators Insights on the Infrastructure Challenges of Ensuring a Safe Drinking Water Supply*, (oral: presenter), Section on Doing Critical Community Geography to Inform Policy: Approaches and Outcomes, American Association of Geographers Annual Conference, Washington D.C.
- *2018 **McDonald, Y.J.** and Jones, N.E. *Environmental justice: Drinking water violations in the US, 2011-2015*, (poster presenter), AcademyHealth, Seattle, WA.
- 2018 **McDonald, Y.J.** and Jones, N.E. *Drinking water violations and environmental justice in the United States, 2011-2015*, (oral: invited presenter), Conference of Ford Foundation Fellows, Washington DC.
- 2018 **McDonald, Y.J.** and Jones, N.E. *An environmental justice review of drinking water quality in the United States, 2011-2015*, (oral: invited presenter), Section on Environmental Racism, American Association of Geographers Annual Conference, New Orleans, LA.
- 2016 **McDonald, Y.J.**, Goldberg, D.W., Scarinci, I., Castle, P.E., Cuzik, J., Powell, A., Roberston, M., and Wheeler, C.M. *Health service accessibility and risk in cervical cancer prevention: Comparing rural versus non-rural residence in New Mexico*, (oral: presenter), Section on Accessibility to Health Services, National Institutes of Health/National Cancer Institute Conference on Geospatial Approaches to Cancer Control and Population Sciences, Bethesda, MD.
- 2015 **McDonald, Y.J.**, Schwind, M., Goldberg, D.W., Scarinci, I., Castle, P., Cuzik, J., Powell, A., Roberston, M., and Wheeler, C.M. *Landscape of cervical cancer screening, diagnosis and pre-cancerous treatment services in New Mexico, USA*, (oral: presenter), Section on Health Disparities: Contemporary and Emerging Methods (co-organizer of session), American Association of Geographers Annual Conference, Chicago, IL.
- 2014 **McDonald, Y.J.**, Grineski, S.E., Collins, T., and Kim, Y.A. *A scalable climate health justice assessment model*, (oral: presenter), Section on Environmental Justice Research: Contemporary Issues and Emerging Topics II, American Association of Geographers Annual Conference, Tampa, FL.
- 2013 **McDonald, Y.J.**, Grineski, S.E., Collins, T., and Kim, Y.A. *The incidence of diseases associated with climate change in Texas, 2008-2010: An examination of economic impacts and socio-spatial disparities*, (oral: presenter), XVth International Medical Geography Symposium, East Lansing, MI.
- 2013 **McDonald, Y.J.** *Lacking a Connection to a Community Water System: Water Quality and Human Health Impacts in El Paso Colonias*, (oral: presenter), Section on Environmental Justice Research: Contemporary Issues and Emerging Topics II, American Association of Geographers Annual Conference, Los Angeles, CA.
- 2012 **McDonald, Y.J.** *Lacking a connection to a municipal water supply: A case study of an environmental and health hazards in El Paso County Colonias*, (oral), Section on Jeanne X. Kasperson Hazards Specialty Group session, American Association of Geographers Annual Conference, New York, NY.

- 2011 **McDonald, Y.J.** and Grineski, S.E. *Lack of plumbing: A bi-national comparison of environmental injustice in El Paso and Ciudad Juárez* (poster: presenter), BienESTAR: Building a Research Agenda on Water, Sanitation, Toxic Chemicals, and Public Health in the *Colonias* Conference, El Paso, TX.
- 2011 **McDonald, Y.J.** and Grineski, S.E. *Social determinants of health risk due to lack of plumbing: The case of El Paso-Ciudad Juárez*, (oral: presenter), Section on Geospatial and Environmental Health session, American Association of Geographers Annual Conference, Seattle, WA.

*Peer-reviewed, ¹Ph.D student at Vanderbilt University, ⁵M.Ed. at Vanderbilt University

Invited Presentations:

- 2021 **McDonald, Y.J.**, Anderson, K.M.,¹ and Caballero, M.D.¹ on behalf of the Vanderbilt Drinking Water Justice Lab. *U.S. Comprehensive Drinking Water Database: Why Does It Matter?* CS3891: Special Topics: Computing and the Environment, Department of Computer Science, School of Engineering, Vanderbilt University, Nashville, TN.
- 2021 **McDonald, Y.J.** on behalf of the Vanderbilt Drinking Water Justice Lab. *Building a framework to inform equitable drinking water health policy*. Health Policy Virtual Grand Rounds, Department of Health Policy, School of Medicine, Vanderbilt University, Nashville, TN.
- 2021 **McDonald, Y.J.**, Anderson, K.M., Caballero, M.D., Ding, K.J., Fisher, D., Hill, E., and Morkel, C. on behalf of the Vanderbilt University Drinking Water Justice Lab, *Where are the community water systems? A systematic review of geospatial representation of United States community water system service areas*. 2021. University of Illinois at Urbana-Champaign Geography & GIS Virtual Colloquium.
- 2021 Anderson, K.M.¹ and **McDonald, Y.J.** on behalf of the Vanderbilt Drinking Water Justice Lab. *Partnering with Tennessee Water Professionals: Mapping Community Water Systems and Operator Survey Key Findings*. Annual Tennessee Association of Utility Districts Technology Virtual Conference.
- 2020 McDonald, Y.J. *Access to Water Infrastructure: Colonias*. National Academies of Sciences, Engineering, and Medicine, Water Science and Technology Board Meeting, Virtual Public Session.
- 2020 **McDonald, Y.J.** *Measuring Space and Place, Geographic Information Systems and Water as the Exposure*. EPI 8331: Quantitative Methods & Measurement, Institute for Medicine and Public Health, School of Medicine, Vanderbilt University Medical Center, Nashville, TN.
- 2020 **McDonald, Y.J.** *Submitting Successful National Dissertation Fellowship Applications*, Summer 2020 Fellowship Application Virtual Writing Boot Camp Office of Graduate and Professional Studies & G.R.A.D. AGGIES, Texas A&M University, College Station, TX.

- 2019 **McDonald, Y.J.** *Measuring Space and Place, Geographic Information Systems and Water as the Exposure*. EPI 8331: Quantitative Methods & Measurement, Institute for Medicine and Public Health, School of Medicine, Vanderbilt University Medical Center, Nashville, TN.
- 2019 **McDonald, Y.J.** *Environmental Justice*. HOD 8130 Public Policy and Advocacy, Peabody College, Vanderbilt University, Nashville, TN.
- 2019 **McDonald, Y.J.** *Geographic Information Systems (GIS) and Public Health*. IDIS 5614: Community Healthcare: Patients, Populations, and Systems, School of Medicine, Vanderbilt University Medical Center, Nashville, TN.
- 2019 **McDonald, Y.J.** *Geographic Information Systems (GIS) and Public Health*. IDIS 5614: Community Healthcare: Patients, Populations, and Systems, School of Medicine, Vanderbilt University, Nashville, TN.
- 2018 **McDonald, Y.J.** *Applications of Geographic Information Systems (GIS) in Health Research*. HOD 8810 Community Inquiry, Peabody College, Vanderbilt University, Nashville, TN.
- 2018 **McDonald, Y.J.** *My Professional Journey: Graduate Student to Junior Faculty*. HOD 8000 Community Research and Action Proseminar, Peabody College, Vanderbilt University, Nashville, TN.
- 2018 **McDonald, Y.J.** *Health & Place: Applications of Geographic Information Systems in Climate Change, Drinking Water, and Accessibility to Healthcare Services*. HOD 7400 Community Intervention and Change, Peabody College, Vanderbilt University, Nashville, TN.
- 2017 Hotez, P.J., **McDonald, Y.J.**, Parker, G.W., Tesh, R.T., and Wooton, S.H. *Neglected Infections Emerging in the Epoch of the Anthropocene* (panel), The Academy of Medicine, Engineering and Science of Texas Annual Conference, San Antonio, TX.
- 2015 **McDonald, Y.J.** *How Spatial Epidemiology Influenced My Research: A Geographer's Perspective*. Graduate course in Spatial Epidemiology, Texas A&M School of Public Health, College Station, TX.

Interviews:

- 2018 Reuters Health (Shereen Lehman). Commentary on “Drinking water violations and environmental justice in the United States, 2011-2015” article published in the *American Journal of Public Health*.

RESEARCH GRANTS:

Extramural Gants and Contracts

Sandia National Laboratories, Department of Energy (prime), “*Gaps Analysis for Marine Energy Impacts*.” PI: Dr. Thushara Gunda, Sandia National Laboratories Role: Site PI: McDonald, Y.J. Contract Agreement# 1953605, \$77,890 to support one Ph.D. student supervised by McDonald, Y.J. The objective is to evaluate gaps in social, engineering, and environmental impacts within marine energy and preliminary identification of datasets to address gaps within marine energy. (2021-2022)

National Environmental Health Association, Centers for Disease Control and Prevention (prime), CDC-RFA-EH15-1507 “*Private Wells Project.*” PI: Mary-Margaret Fill, Tennessee Department of Health. Role: Collaborative Partner: **McDonald, Y.J.** PO# 34301-0000185855, \$10,100 to support two graduate student technical assistants supervised by McDonald, Y.J. (2021)

National Center for Environmental Health, Centers for Disease Control (prime), CDC-RFA-EJ20-2025 “*Strengthening environmental health capacity (EHC) to detect, prevent, and control environmental health hazards through data-driven, evidence-based approaches.*” PI: Mary-Margaret Fill, Tennessee Department of Health. Role: Collaborative Partner: **McDonald, Y.J.** PO# 34301-0000185855, \$31,360 to support undergraduate student technical assistants supervised by McDonald, Y.J. (2021-2023)

CDC Safe Water for Community Health (prime), CDC-RFA-EH15-1507 “*Environmental Health Services Support for Public Health Drinking Water Programs to Reduce Drinking Water Exposures.*” PI: Mary-Margaret Fill, Tennessee Department of Health. Role: Collaborative Partner: **McDonald, Y.J.** PO# 34301-0000185855, \$15,000 to support undergraduate technical assistants supervised by McDonald, Y.J. (2018 - 2020)

Sub-award on Award Number P20MD002287-05 from The Hispanic Health Disparities Research Center (HHDRC), National Institutes of Health: National Institute on Minority Health and Health Disparities (prime), The University of Texas at El Paso and The University of Texas, Health Science Center at Houston, School of Public Health. “*The Impacts of Lack of Plumbing on Water Quality and Self-Reported Health in El Paso Colonias.*” Role: Co-Principal Investigator: **McDonald, Y.J.** (PI: Sara E. Grineski/advisor). Graduate Student Research Grant. \$5,000. (2011 – 2012)

Sub-award on Award Number P20MD002287-04 from The HHDRC, National Institutes of Health: National Institute on Minority Health and Health Disparities (prime), The University of Texas at El Paso and The University of Texas, Health Science Center at Houston, School of Public Health. Role: Co-Principal Investigator: **McDonald, Y.J.** (PI: Sara E. Grineski/advisor). “*Socio-spatial and Temporal Disparities: Water-borne Diseases and Risk in El Paso and Juárez.*” Graduate Student Research Grant. \$5,000. (2010 – 2011)

Unfunded

National Institutes of Health Investigator-Initiated Application (R01). “*Birth Outcomes and Contaminant Mixtures in Community Water Systems.*” Lead PI: Hill, E.L., University of Rochester Medical Center (URMC). Vanderbilt University (VU) Role: Site PI: **McDonald, Y.J.** Co-Is: Tanzy Love (URMC), George Hornberger (VU), Jonathan Gilligan (VU), and William Hawkins (VUMC). Consultants: Chris Gennings (Mount Sinai) and James Salzman (UCLA and University of Santa Barbara). \$1,928,655. (Submitted October 5, 2019; Infectious Disease, Reproductive Health, and Asthma/Pulmonary Conditions (IRAP) study section on 02/27/-28/2020) Dr. Hill and I co-led the development of this proposal.

A Geospatial Approach to Understanding Health Inequities and Environmental Injustice in U.S. Drinking Water Quality. Robert Wood Johnson Foundation, Evidence for Action: Investigator-Initiated Research to Build a Culture of Health Letter of Intent. Role: PI: **McDonald, Y.J.** Co-PI Elaine L. Hill.

Intramural Grants

Interdisciplinary Discovery Grant. *"Water, water everywhere: what drops are safe to drink?"* Lead Faculty: George Hornberger, Role: Co-lead Faculty: **McDonald, Y.J.**, and Faculty Collaborators: Jonathan Gilligan, William Hawkins, Patrick Greiner, Doug Fisher, Michelle Marcus, and Janey Camp. \$98,374. (2019 – 2021)

Meharry-Vanderbilt Community Engaged Research Core Mini-Grant. Center for Advancing Translational Sciences (CTSA) award number UL1TR000445 from the National Center for Advancing Translational Sciences. *"Behind the Pipes: Tennessee Public Water Systems Operators Insights on the Challenges of Ensuring a Safe Drinking Water Supply."* Role: Faculty PI: **McDonald, Y.J.** Community partner: Bob Freudenthal, Tennessee Utility Education Corporation (TUEC). \$10,000 from CTSA and TUEC committed \$12,900. (2019-2021)

Schwab Faculty Development & Support Award. National Institutes of Health (NIH) Environmental Health Matters Initiative (EHMI) workshop: Quality Water from Every Tap. \$795. (2019)

Schwab Faculty Development & Support Award. National Institutes of Health (NIH) Regional Seminar on Program Funding & Grants Administration. \$1,000. (2019)

Schwab Faculty Development & Support Award. ICPSR "R:Learning by Example" workshop. \$1,000. (2018)

Center for Environmental Research and Management Seed Research Grant, The University of Texas at El Paso. \$500. (2010)

Undergraduate Funding

Vanderbilt University Summer Research Program. Littlejohn Summer Research Scholar. *"'Forever chemicals' in Tennessee? Potential Public health consequences of PFAS."* Undergraduate Student Researcher: Manapat, A.⁴ Faculty Advisors: **McDonald, Y.J.** and Ding, K.J. \$6,000 awarded to student. (2021).

Vanderbilt University Summer Research Program. Littlejohn Summer Research Scholar. *"Association between Fluoride Levels in Tennessee Community Water Drinking Water Systems and Caries."* Undergraduate Student Researcher: Kim, A.⁴ Faculty Advisors: **McDonald, Y.J.** and Ding, K.J. \$6,000 awarded to student. (2021).

⁴Undergraduate student at Vanderbilt University

Unfunded

Meharry-Vanderbilt Community Engaged Research Core Mini-Grant. *Protecting our Health: Tennessee Public Water Systems Operators Insights on the Challenges of Ensuring a Safe Drinking Water Supply.* Role: Faculty PI: **McDonald, Y.J.** Community partner: Bob Freudenthal, Tennessee Utility Education Corporation (TUEC). (Submitted October 2018)

Scholarships

Office of Graduate and Professional Studies, Texas A&M University. \$4,200. (2016- 2017)

Unocal Graduate Scholarship in Geoscience. College of Geosciences Scholarship Committee, Texas A&M University. \$1,500. (2016 – 2017)

Cary N Smith '34 Memorial Scholarship, Academic Excellence Award. University Scholarship Committee, Texas A&M University. \$1,000 (*Declined*). (2016-2017)

Diversity Scholarship in Geoscience. College of Geosciences Scholarship Committee, Texas A&M University. \$1,500. (2015- 2016)

Desert Mountain Chapter, American Water Works Association Scholarship. \$1,500. (2013 – 2014)

Desert Mountain Chapter, American Water Works Association Scholarship. \$1,500. (2011-2012)

Texas Section, American Water Works Association Scholarship. \$2,000. (2011-2012)

Allien and Paul C. Davidson Graduate Student Scholarship, The University of Texas at El Paso Graduate School. \$2,000. (2011-2012)

Enterprising and Professional Women Paso del Norte Scholarship. \$1,000. (2010-2011)

TEACHING:

Position	Course Title	Course #	Semester(s)	# of Students	University
Assistant Professor (co-instructor)	Independent Study Scientific Computing	SC3850	Fall 2021	1	Vanderbilt University
Assistant Professor	HOD Capstone	HOD 4950/4951/4592/4953	Spring 2021	10	Vanderbilt University
Assistant Professor	Social Determinants of Health	HOD 3650 01	Fall 2020	18	Vanderbilt University
Assistant Professor	HOD Capstone	HOD 4950/4951/4592/4953	Fall 2020	11	Vanderbilt University
Assistant Professor	Environmental Health	HOD 3650 02	Spring 2020	18	Vanderbilt University
Assistant Professor	HOD Capstone	HOD 4950/4951/4592/4953	Spring 2020	11	Vanderbilt University
Position	Course Title	Course #	Semester(s)	# of Students	University
Assistant Professor	HOD Capstone	HOD 4950/4951/4592/4953	Fall 2019	11	Vanderbilt University
Assistant Professor	Environmental Health	HOD 3650 01	Spring 2019	20	Vanderbilt University
Assistant Professor	HOD Capstone	HOD 4950/4951/4592/4953	Spring 2019	11	Vanderbilt University
Assistant Professor	Special Topics: Systematic Literature Review	HOD 7500 02	Fall 2018	6	Vanderbilt University
Assistant Professor	HOD Capstone	HOD 4950/4951/4592/4953	Fall 2018	11	Vanderbilt University
Assistant Professor	HOD Capstone	HOD 4950/4951/4592/4953	Spring 2018	10	Vanderbilt University

MENTORING/ADVISING:

Research Assistant Student Supervision:

Drinking Water Justice Lab. I am the Lead Investigator and Co-founder. I currently mentor an interdisciplinary lab of 12 students actively engaged in the research: one postdoctoral research scientist (Iowa State), two Ph.D. candidates (Community Research and Action); two MS (Data Science and Earth and Environmental Sciences); one M.Ed. (Community Development and Action); and six undergraduates (two HOD, one Chemistry, one Computer Science and Mathematics, one Political Science and Cognitive Studies, one Sociology). (2017 – present)

Drinking Water Justice Lab Alumni. Two graduate students (One Ph.D. Sociology and one M.Ed. Community Development and Action) and five undergraduate students (three Human and Organizational Development and two Medicine Health and Society).

Current Graduate Student Committees:

Kayla Anderson and Mariah Caballero (Ph.D. students, Community Research and Action Program – 2020 Cohort). Role: Primary Advisor and Dissertation Committee Chair

Austin Fernandez (M.Ed. 2020 cohort). Thesis Title: *Tennessee Private Wells Drinking Water Risk Model*. Role: Chair

Jennifer Dodd (Ph.D. Candidate, Vanderbilt Center for Environmental Management and Policy) Dissertation Proposal Title: “*A Framework for Evaluating Watershed Recovery Potential and Engaging Communities to Reduce Nutrient Loadings to Water: Tools and Approaches for State and Local Planners.*” Role: Committee Member (Fall 2023, anticipated graduation)

Current Program of Studies Community Research and Action Program Committee Member:

Emily Barrett (2020 Cohort) and Shadi Omidvar Tehrani (2020 Cohort)

Current M.Ed. Student Advisees:

Amy Correia (2021 cohort), Dylan DePriest (2021 cohort), Lauren Scarborough (2021 cohort), Katherine Rule (2020 cohort)

Current Undergraduate Student Advising: 25 students.

Previous M.Ed. Student Thesis Committees:

Kayla Anderson: Thesis Title: “*Understanding the Impact of Technical, Financial, and Managerial Challenges as Expressed by Public Water Operators on Monitoring and Reporting Violations in the State of Tennessee.*” Role: Chair (2018 cohort, conferred degree 2020)

Katherine Allison: Thesis Project Title: “*Sumner County Climate Resiliency.*” Role: Chair (2018 cohort, conferred degree 2020)

Previous M.Ed. Student Advisees: Devin Irish (2019 cohort) and Krishanna Prince (2019 cohort)

Previous Undergraduate Honors Thesis Advisor

Catherine Paxton. Research topic: *Retaining an essential workforce: A quantitative analysis of workforce retention factors among water operators in Tennessee* (2019 – 2020)

Natalie Singer. Research topic: *A geospatial temporal approach to fatal and non-fatal opioid overdoses in Massachusetts.* (2018-2019)

SERVICE:

Professional Service

Student Representative for Spatial Analysis and Modeling Specialty Group of the American Association of Geographers. (2014 – 2017)

Journal Reviewer

Exceptional Reviewer for *The Journal of Rural Health* (2016-2017)

Environmental Justice; Healthcare; International Journal of Environmental Research and Public Health; Journal of Health Care for the Poor and Underserved; Journal of Hydrology; Journal of Medical Systems; Journal of Policy Analysis and Management; The Journal of Rural Health; Nature Communications; PLOS ONE; Proceedings of the National Academy of Sciences of the United States of America; Public Health; Social Science & Medicine; Society and Natural Resources; Sustainability; Systematic Reviews; The Journal of Rural Health; The Professional Geographer; Water

Community Service

Head Middle Magnet Prep School (invited speaker – 6th grade assembly). *Topic: In Your backyard: Environmental Justice and Climate Change in Tennessee.* Nashville, TN. (February 18, 2020)

Tennessee Drinking Water Stakeholders Committee. Role: Chair. Monthly meeting to prioritize and monitor progress of collaborative drinking water research agenda. Group members comprise representatives from Tennessee Department of Health (TDH), Tennessee Department of Environment & Conservation (TDEC), Tennessee Association of Utility Districts (TAUD), Vanderbilt University, and community water systems operators. (2018 – present)

University Service

- Vanderbilt University Climate, Environment, and Energy Futures Working Group (2021 – 2022)
- Vanderbilt University Trans-Institutional Major in Climate Studies Planning Committee (2021-2022)
- Vanderbilt University Sustainability Advisory Council (2020- 2021)
- Vanderbilt Research IT, Faculty Advisory Committee (2018 – 2021)
- Dr. Robert Bullard Day: Raising Awareness of Environmental and Climate Justice, Committee Chair (2019)
- Vanderbilt Initiative for Interdisciplinary Geospatial Research, Advisory Committee (2018 – 2020)
- GIS Day(s) Planning Committee (2018): Keynote speaker coordinator: Mei-Po Kwan
- Judge for 3MT Competition (2018)
- Data Science Champion for Department of Human & Organizational Development to support Data Science Visions Working Group (2017 – present)
- Vanderbilt Initiative for Smart City Operations Research (VISOR) Trans-Institutional Initiative. Planning Committee for Gentrification/Equitable Development Workshop (2017 – 2018)

College

- Peabody Research Spotlight, *Building a Place-Based Framework to Inform Equitable Drinking Water Health Policy*, Peabody College, Vanderbilt University (invited panelists, November 2021)
- *Faculty Face Time*, Peabody College, Vanderbilt University (invited faculty, a dialogue with Kayla Anderson, 2nd year Ph.D. student/advisee, Community Research and Action, October 2021)
- *Using Geographic Information Systems to Improve Decision-Making: A Peabody Research Methods and Strategies Seminar*, Peabody College, Vanderbilt University (invited panelists, 2020)
- Peabody Faculty Research Presentation (oral). The Campaign Cabinet for Vanderbilt, Peabody College, Vanderbilt University, Nashville, TN (2018)

Department

- Co-Chair, CRA Recruitment Committee (2018 - 2019)
- Member, HOD Strategic Planning Committee (2019)
- Teaching Observations for tenure review (2019)
- First Year Student Advisor (2018)
- Member, CRA Ad Hoc CRA Health Track Committee on Curriculum/Program Studies (2017 – present)
- Chair, CRA Recruitment Committee (2017)
- Co-organizer HOD schedule for Ph.D. Pre-VU Recruitment Event (2017)