

YOLANDA J. MCDONALD, Ph.D.

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CURRENT ACADEMIC APPOINTMENT

2017 – Present Assistant Professor of Human & Organizational Development, Vanderbilt University, Peabody College of Education & Human Development

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

RESEARCH AND TEACHING INTERESTS

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|------------------------|---------------------|-------------------------------|
| Drinking Water Justice | Health Disparities | Medical Geography |
| Energy Justice | Health Geography | Social Determinants of Health |
| Environmental Health | HealthGIS | Spatial Epidemiology |
| Environmental Justice | Health Inequalities | |

EDUCATION & CERTIFICATIONS

Ph.D. in Geography, Texas A&M University, 2017

- **Dissertation Title:** *An Intersectionality Approach to Assessing the Landscape Across the Cervical Cancer Continuum of Cancer: Geographic and Sociodemographic Inequalities in New Mexico*
 - **Committee:** Daniel W. Goldberg (Chair), Christian Brannstrom, Mark Fossett, and Daikwon Han
- 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.

MA in Sociology, The University of Texas at El Paso, 2011

- **Thesis Title:** *Lacking a connection to a community water system: Water quality and human health impacts in El Paso Colonias*
 - **Committee:** Sara E. Grineski (Chair), Timothy W. Collins, and Kristina D. Mena

BA in Multidisciplinary Studies, The University of Texas at El Paso, 2009

PRIOR PROFESSIONAL EXPERIENCE

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

2013 – 2015 Research Assistant, Department of Geography, Texas A&M University

- 2012 – 2014 Lab Instructor, Department of Geography, Texas A&M University
- 2013 – 2013 Visiting Scholar, Department of Sociology & Anthropology, The University of Texas at El Paso
- 2013 – 2013 Teaching Assistant/Field Workshop Coordinator, Department of Geography, Texas A&M University
- 2012 – 2012 Teaching Assistant, Department of Geography, Texas A&M University
- 2011 – 2012 Research Assistant, Department of Sociology & Anthropology, The University of Texas at El Paso
- 2011 – 2011 Research Consultant, Pan American Health Organization/World Health Organization's *Colonias* Initiatives Program

AWARDS & HONORS

- 2019 Junior Faculty Teaching Fellowship, Vanderbilt University
- 2018 Health Disparities Research Institute Scholar, National Institutes of Health (NIH) National Institute on Minority Health and Health Disparities
- 2016 Ford Foundation Dissertation Fellowship Award
- 2016 American Association of University Women Dissertation Fellowship Award (*Declined*)
- 2016 Alliance for Graduate Education and the Professoriate Ambassador Award, Office of Graduate and Professional Studies, Texas A&M University
- 2015 University of New Mexico Cancer Center Graduate Fellowship Award, University of New Mexico (sponsor), National Institutes of Health (prime sponsor)
- 2012 Doctoral Graduate Diversity Fellowship Award, College of Geosciences, Texas A&M University
- 2012 Outstanding Graduate Student in Sociology, The University of Texas at El Paso Honors Convocation Award

PUBLICATIONS

Articles in Refereed Journals:

(*** = Ph.D. student; ** = master's student; * = undergraduate student)

1. ***Ding, K.J., Hornberger, G.M., Hill, E., and **McDonald, Y.J.** (2022). Where You Drink Water: An Assessment of the Tennessee, USA Public Water Supply. *Water*. 14(16), 2562; <https://doi.org/10.3390/w14162562>
2. ***Caballero, M.D., Gunda, T., and **McDonald, Y.J.** (2022). Pollution in the Press: Employing Text Analytics to Understand Regional Water Quality Narratives. *Frontiers in Environmental Science*. <https://www.frontiersin.org/articles/10.3389/fenvs.2022.770812/full>
3. *Paxton, C., ***Anderson, K., and **McDonald, Y.J.** (2022). A quantitative analysis of workforce retention factors among water professionals in Tennessee. *Utilities Policy*. <https://doi.org/10.1016/j.jup.2022.101356>
4. **McDonald, Y.J.**, ***Anderson, K.M., ***Caballero, M.D., ***Ding, K.J., Fisher, D., **Morkel, C., 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>
5. 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. [DOI: 10.1016/j.ygyno.2020.08.033](https://doi.org/10.1016/j.ygyno.2020.08.033)
6. 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*. <https://doi.org/10.1002/ijc.32826>
7. **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. [DOI: 10.2105/AJPH.2018.304621](https://doi.org/10.2105/AJPH.2018.304621)
8. **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. <https://doi.org/10.4081/gh.2017.526>
9. **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.
<https://doi.org/10.1111/jrh.12202>

10. **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.
<https://doi.org/10.1016/j.socscimed.2014.10.032>
11. 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.
<https://doi.org/10.1080/13549839.2013.839644>
12. 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. <https://doi.org/10.1080/00330124.2011.639625>
13. **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. <https://doi.org/10.1007/s11111-011-0154-0>
14. 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. <https://doi.org/10.1016/j.healthplace.2010.11.011>
15. 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.
<https://doi.org/10.1007/s11111-010-0129-6>

Articles Under Review:

1. ***Caballero, M.D., Gunda, T., and McDonald, Y.J. (under review). Energy justice & coastal communities: The case for meaningful marine renewable energy development. Submitted to *Renewable and Sustainable Energy Reviews*.

Invited Articles (Editorial Review) In Press:

(*** = Ph.D. student; ** = master's student; * = undergraduate student)

1. **McDonald, Y.J.** (In-Press). Uneven benefits infrastructure spending among ethnorracial groups. *News & Views, Nature Water*. January 2023 inaugural issue.

Refereed Book Chapters:

1. Lachica, J., Castenada, E., and **McDonald, Y.J.** (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.
2. 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.

Public Scholarship:

(*** = Ph.D. student; ** = master's student; * = undergraduate student)

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

MEDIA COVERAGE OF RESEARCH

1. Lehman, S. (2018, September 25). *Drinking water violations more common in impoverished counties*. Health (Shereen Lehman). Reuters Health. Retrieved from <https://www.reuters.com/article/us-health-water-violations-idINKCN1M52GB>.

Podcasts:

1. Dillion, Mia. (2022, February 17). Health our Earth, Drinking Water Justice with Dr. Yolanda J. McDonald (Episode 4). Retrieved from <https://open.spotify.com/show/3OuAippSlw3tPxxv30xArCX>.
2. Dillion, Mia. (2022, February 8). Health our Earth, Community Power and Environmental Justice with Dr. Yolanda J. McDonald (Episode 4). Retrieved from <https://open.spotify.com/show/3OuAippSlw3tPxxv30xArCX>.

RESEARCH GRANTS & CONTRACTS

Extramural Grants and Contracts:

- 2022 – 2023 Gunda, T. & **McDonald, Y.J.** (\$96,564). *Consent-based Siting of Nuclear Waste*. Sandia National Laboratories (SNL), Department of Energy (prime). Contract Agreement# 1953605 to support one Ph.D. student and course buyout. SNL PI: Dr. Thushara Gunda. VU PI: McDonald, Y.J.
- 2022 – 2023 **McDonald, Y.J.** (\$16,500). *Tennessee Community Water Systems Estimated Service Area Boundary Project*. Tennessee Department of Environment & Conservation. Contract Agreement # (need to insert) to support GIS Analyst.
- 2021 – 2023 Fill, MM & **McDonald, Y.J.** (\$44,040). *Strengthening environmental health capacity (EHC) to detect, prevent, and control environmental health hazards through data-driven, evidence-based approaches*. Tennessee Department of Health (TDH), National Center for Environmental Health, Centers for Disease Control (prime), CDC-RFA-EJ20-2025. TDH PI: Mary-Margaret Fill. VU PI: McDonald, Y.J. PO # 34301-0000185855 to support up to three undergraduate student technical assistants.
- 2021 – 2022 Gunda, T. & **McDonald, Y.J.** (\$77,890). *Gaps Analysis for Marine Energy Impacts*. Sandia National Laboratories (SNL), Department of Energy (prime). Contract Agreement# 1953605 to support one Ph.D. student and course buyout. SNL PI: Dr. Thushara Gunda. VU PI: McDonald, Y.J.
- 2021 – 2021 Fill, MM & **McDonald, Y.J.** (\$10,100). *Private Wells Project*. Tennessee Department of Health (TDH), National Environmental Health Association, Centers for Disease Control and Prevention (prime), CDC-RFA-EH15-1507. TDH PI: Mary-Margaret Fill. VU PI: McDonald, Y.J. PO # 34301-0000185855 to support two graduate student technical assistants.
- 2018 – 2020 Fill, MM & **McDonald, Y.J.** (\$15,000). *Environmental Health Services Support for Public Health Drinking Water Programs to Reduce Drinking Water Exposures*. Tennessee Department of Health (TDH), CDC Safe Water for Community Health (prime), CDC-RFA-EH15-1507. TDH PI: Mary-Margaret Fill. VU PI: McDonald, Y.J. PO # 34301-0000185855 to support up to three undergraduate student technical assistants.
- 2011 – 2012 Grineski, S.E. & **McDonald, Y.J.** (\$5,000). *The Impacts of Lack of Plumbing on Water Quality and Self-Reported Health in El Paso Colonias*. Sub-award on Award Number P20MD002287-05 from The Hispanic Health Disparities Research Center (HHDRS), 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. PI: Sara E. Grineski. Co-PI: McDonald, Y.J. (Graduate Student Research Grant).

2010 – 2011 Grineski, S.E. & **McDonald, Y.J.** (\$5,000). *Socio-spatial and Temporal Disparities: Water-borne Diseases and Risk in El Paso and Juárez*. Sub-award on Award Number P20MD002287-04 from The Hispanic Health Disparities Research Center (HHDRRC), 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. PI: Sara E. Grineski. Co-PI: McDonald, Y.J. (Graduate Student Research Grant).

Intramural Grants:

2022 McDonald, Y.J. (\$8,100). *Leveraging Bloom's Taxonomy and Geographic Information Science to Assess Drinking Water Justice in the United States*. Peabody Small Grants 2021-2022 Instructional Innovation and Improvement Grant.

2022 **McDonald, Y.J.** (\$1,000). *The Columbia University Sharp Training Program Skills For Health and Research Professionals: Environmental Justice Boot Camp: Theory and Methods to Study Environmental Health Disparities*. Schwab Faculty Development & Support Award.

2019 – 2021 Hornberger, G.M. & **McDonald, Y.J.** (\$98,374). *Water, water everywhere: what drops are safe to drink?* Interdisciplinary Discovery Grant. Lead Faculty: George Hornberger, Role: Co-lead Faculty: McDonald, Y.J., and Faculty Collaborators: Gilligan, J., Hawkins, W., Greiner, P., Fisher, D., Marcus, M., Camp, J.

2019 – 2021 **McDonald, Y.J.** (\$12,900). *Behind the Pipes: Tennessee Public Water Systems Operators Insights on the Challenges of Ensuring a Safe Drinking Water Supply*. 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. Faculty PI: McDonald, Y.J. Community partner: Bob Freudenthal, Tennessee Utility Education Corporation (TUEC).

2021 **McDonald, Y.J.** (\$1,000). *A Review of Best Practices for Interdisciplinary Lab Websites: Development of the Vanderbilt University Drinking Water Justice Lab Website*. Schwab Faculty Development & Support Award.

2019 – 2021 **McDonald, Y.J.** (\$1,800). Southeastern Conference (SEC) Faculty Travel Grant.

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

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

SCHOLARSHIPS

2016 – 2017 **McDonald, Y.J.** (\$4,200). Office of Graduate and Professional Studies, Texas A&M University.

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

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

2015 – 2016 **McDonald, Y.J.** (\$1,500). Diversity Scholarship in Geoscience. College of Geosciences Scholarship Committee, Texas A&M University.

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

2011 – 2012 **McDonald, Y.J.** (\$1,500). Desert Mountain Chapter, American Water Works Association Scholarship.

2011 – 2012 **McDonald, Y.J.** (\$2,000). Texas Section, American Water Works Association Scholarship.

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

2010 – 2011 **McDonald, Y.J.** (\$1,000). Enterprising and Professional Women Paso del Norte Scholarship.

PRESENTATIONS

Invited Talks:

(*** = Ph.D. student; ** = master's student; * = undergraduate student)

1. ***Caballero, M., **Fernandez, A., **McDonald, Y.J.**, and Judy Manners. (2022). National Environmental Health Association in collaboration with Rural Community Assistance Program 2022 Surveillance, Treatment, and Well Testing Approaches for Safe Groundwater and Private Wells Webinar Series: Tennessee DOH's Approaches to Estimating Private Wells, Private Well Users, and Risk Estimations. Virtual.

2. **McDonald, Y.J.** on behalf of the Vanderbilt Drinking Water Justice Lab. (2021). 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.
3. **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. (2021). Where are the community water systems? A systematic review of geospatial representation of United States community water system service areas. The University of Illinois at Urbana-Champaign Geography & GIS Virtual Colloquium.
4. ***Anderson, K.M. and **McDonald, Y.J.** on behalf of the Vanderbilt Drinking Water Justice Lab. (2021). Partnering with Tennessee Water Professionals: Mapping Community Water Systems and Operator Survey Key Findings. Annual Tennessee Association of Utility Districts Technology Virtual Conference.
5. **McDonald, Y.J.** (2020). Access to Water Infrastructure: *Colonias*. **National Academies of Sciences, Engineering, and Medicine, Water Science and Technology Board Meeting, Virtual Public Session.**
6. Hotez, P.J., **McDonald, Y.J.**, Parker, G.W., Tesh, R.T., and Wooton, S.H. (2017). Neglected Infections Emerging in the Epoch of the Anthropocene (panel). **The Academy of Medicine, Engineering, and Science of Texas Annual Conference, San Antonio, Texas.**

Refereed Conference Presentations:

(*** = Ph.D. student; ** = master's student; * = undergraduate student)

1. ***Caballero, M., Gunda, T., **McDonald, Y.J.**, Gilligan, J.M. (2020). Pollution in the Press: Employing Text Analysis to Understand Regional Water Quality Metrics (poster), American Geophysical Union Virtual Annual Conference.
2. **McDonald, Y.J.** (2020). Demystifying Community Water Systems Location: A Case Study in Tennessee (oral: presenter), American Water Resources Association Virtual Annual Conference.
3. ***Anderson, K.M. and **McDonald, Y.J.** (2020). 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.
4. **McDonald, Y.J.** and **Anderson, K.M. (2019). 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.

5. **McDonald, Y.J.** and Jones, N.E. (2018). Drinking water violations and environmental justice in the United States, 2011-2015, (oral: presenter), Conference of Ford Foundation Fellows, Washington DC.
6. **McDonald, Y.J.** and Jones, N.E. (2018). Environmental justice: Drinking water violations in the US, 2011-2015, (poster: presenter), Academy Health, Seattle, WA.
7. **McDonald, Y.J.** (2012). Lacking a connection to a municipal water supply: A case study of environmental and health hazards in El Paso County Colonias, (oral: presenter), Section on Jeanne X. Kasperson Hazards Specialty Group session, American Association of Geographers Annual Conference, New York, NY.

Conference Presentations:

(*** = Ph.D. student; ** = master's student; * = undergraduate student)

1. **McDonald, Y.J.**, ***Anderson, K.M., ***Caballero, M.D., Ding, K.J., Fisher, D., **Morkel, C., and Hill, E. on behalf of the Drinking Water Justice Lab. (2022). Geospatial representation of United States community water system estimated service area boundaries: A crucial step to assessing water justice at the community level (oral: presenter); American Association of Geographers Annual Virtual Conference.
2. ***Caballero, M.D., ***Anderson, K.M., and **McDonald, Y.J.** on behalf of the Drinking Water Justice Lab. Crude oil production and regulation of BTEX in drinking water (oral: co-presenter); American Association of Geographers Annual Virtual Conference.
3. Manners, J., ***Caballero, M., **Fernandez, A., and **McDonald, Y.J.** (2022). Tennessee Private Well Project (oral: co-presenter); National Environmental Health Association in collaboration with Centers for Disease Control and Prevention Grantee Project Virtual Presentations.
4. ***Anderson, K.M., Gasteyer, S., Lander, P., Manners, J., and VanDerslice, J. (2021). 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.; American Association of Geographers Annual Virtual Conference.
5. ***Anderson, K.M. and **McDonald, Y.J.** (2021). Operators Know Best: Utilizing Public Water System Operators to Understand Technical, Managerial, and Financial Challenges Facing Community Water Systems in Tennessee (oral: co-presenter); Organized by ***Anderson, K.M. and McDonald, Y.J.; Discussant: VanDerslice, J.; American Association of Geographers Annual Virtual Conference.
6. *Kim, A., *Manapat, A., ***Caballero, M., *Semenov, D., **McDonald, YJ** (2021). So Exactly Where Are Community Water Systems Located? (oral: co-presenter); Organized by ***Anderson, K.M. and McDonald, Y.J.; Discussant: VanDerslice, J.; American Association of Geographers Annual Virtual Conference.

7. ***Caballero, M.D., Gunda, T., **McDonald, Y.J.**, and Gilligan, J.M. (2021). Pollution in the Press: Employing Text Analytics to Understand Regional Water Quality Narratives (oral: co-presenter); Organized by ***Anderson, K.M. and McDonald, Y.J.; Discussant: VanDerslice, J.; American Association of Geographers Annual Virtual Conference.
8. **McDonald, Y.J.**, ***Murray, E., Preetam, C., **Allison, K., ***McKane, R., and Hill, E. (2021). Health-Based Drinking Water Violations: A Human Body Systems Framework to Understanding Human Health (oral: presenter); Organized by ***Anderson, K.M. and McDonald, Y.J.; Discussant: VanDerslice, J.; American Association of Geographers Annual Virtual Conference.
9. **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 DC.
10. **McDonald, Y.J.** and Jones, N.E. (2018). An environmental justice review of drinking water quality in the United States, 2011-2015, (oral: presenter), Section on Environmental Racism, American Association of Geographers Annual Conference, New Orleans, LA.
11. **McDonald, Y.J.**, Goldberg, D.W., Scarinci, I., Castle, P.E., Cuzick, J., Powell, A., Roberston, M., and Wheeler, C.M. (2016). 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.
12. **McDonald, Y.J.**, Schwind, M., Goldberg, D.W., Scarinci, I., Castle, P., Cuzick, J., Powell, A., Roberston, M., and Wheeler, C.M. (2015). 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.
13. **McDonald, Y.J.**, Grineski, S.E., Collins, T., and Kim, Y.A. (2014). 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.
14. **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.
15. **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.

16. **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.

17. **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.

TEACHING EXPERIENCE

[* denotes courses taught in a hybrid (both in-person and online) format, ** denotes courses taught online]

Graduate Courses:

Vanderbilt University (2017-Present)

- HOD 7960 01 Independent Study
 - Critical Applied Geospatial Analysis
 - Drinking Water Justice in the US.
- HOD 7500 02 Special Topics: Systematic Literature Review
- DS-5999 Data Science Capstone Development

Undergraduate Courses:

Vanderbilt University (2017-Present)

- HOD 3650 01 Health & Human Services Seminar: Environmental Health: Through the Lens of Water Justice
- HOD 3650 01** Health & Human Services Seminar: Social Determinants of Health
- HOD 3650 02*, ** Health & Human Services Seminar: Environmental Health
- HOD 4950/4951/4952/4953*, ** HOD Capstone
- HOD 3860 01 Independent Study
 - Human Body Organ Systems Contaminants Framework
- SC3850 01 Independent Study Scientific Computing

Invited Course Presentations:

2022 GSS 8301 Gender and Sexuality: Feminist Approaches: *Women, Families, and the Environment*. (Dr. Brooke Ackerly, Department of Political Science, Vanderbilt University).

- 2021 HOD 6210 Community Inquiry: *Building a Place-Based Framework to Inform Equitable Drinking Water Health Policy*. (Dr. Doug Perkins, Department of Human & Organizational Development, Vanderbilt University).
- 2021 CS3891: Special Topics: Computing and the Environment: *US Comprehensive Drinking Water Database: Why Does It Matter?* (Dr. Doug Fisher, Department of Computer Science, School of Engineering, Vanderbilt University).
- 2020 EPI 8331 Quantitative Methods & Measurement: *Measuring Space and Place, Geographic Information Systems and Water as the Exposure*. (Dr. Stephen Deppen, Institute for Medicine and Public Health, School of Medicine, Vanderbilt University Medical Center.)
- 2020 EES 4961: EES Senior Seminar: *Cayce Homes: Community-engaged Research* (Dr. Jessica Oster, Department of Earth and Environmental Sciences, Vanderbilt University.)
- 2019 EPI 8331 Quantitative Methods & Measurement: *Measuring Space and Place, Geographic Information Systems and Water as the Exposure*. (Dr. Stephen Deppen, Institute for Medicine and Public Health, School of Medicine, Vanderbilt University Medical Center.)
- 2019 HOD 8130 Public Policy: *Environmental Justice*. (Dr. Beth Shinn, Department of Human & Organizational Development, Vanderbilt University.)
- 2019 IDIS 5614 Community Healthcare: Patients, Populations, and Systems: *Geographic Information Systems (GIS) and Public*. (Dr. Jule West, Department of Medicine, Vanderbilt University Medical Center.)
- 2018 HOD 7400 Community Intervention and Change: *Health & Place: Applications of Geographic Information Systems in Climate Change, Drinking Water, and Accessibility to Healthcare Services*. (Dr. Doug Perkins, Department of Human & Organizational Development, Vanderbilt University).
- 2018 HOD 8810/6210 Community Inquiry: *Applications of Geographic Information Systems (GIS) in Health Research*. (Dr. Doug Perkins, Department of Human & Organizational Development, Vanderbilt University).
- 2018 HOD 8000 Community Research and Action Proseminar: *My Professional Journey: Graduate Student to Junior Faculty*. (Dr. Velma McBride Murry, Department of Human & Organizational Development, Vanderbilt University).

SUPERVISED RESEARCH & MENTORSHIP

Doctoral Students (Vanderbilt University Primary Advisor):

1. Kayla M. Anderson, Community Research & Action Ph.D. program (2020 – Present)
 - 2022 Emerging Scholars Program: Healthy Neighborhood Study, Robert Wood Johnson Foundation
 - 2020 – 2025 University Graduate Fellowship, Vanderbilt University
 - 2020 - 2022 HASTAC Scholar with Nashville Sites, Vanderbilt University
2. Mariah D. Caballero, Community Research & Action Ph.D. program (2020 – Present)
 - 2022 Finalist, Three Minute Thesis Competition, Vanderbilt University
 - 2021 Semi-Finalist, Health Policy Research Fellowship, Robert Wood Johnson Foundation
 - 2021 Honorable Mention, Pre-Doctoral Fellowship, Ford Foundation
 - 2020 University Provost's Graduate Fellowship, Vanderbilt University
 - 2020 Semi-Finalist Agents of Change
3. Amy N. Podraza, Community Research & Action Ph.D. program (2022 – Present)

Doctoral Students (Vanderbilt University Dissertation Committee Member):

1. Jennifer Dodd, Vanderbilt Center for Environmental Management and Policy (2020 – 2022)

Doctoral Students (Vanderbilt University Program of Studies Committee Member):

1. Emily Barrett, Community Research & Action Ph.D. program (2020 – Present)
2. Shadi Omidvar Tehrani, Community Research & Action Ph.D. program (2020 – Present)

Doctoral Students (Vanderbilt University):

1. Ke Jack Ding, Department of Environmental Engineering (2018 – 2020)
2. Rachel McKane, Department of Sociology (2018-2020)

Professional Students (Vanderbilt University Primary Advisor):

1. Austin Fernandez, Community Development & Action M.Ed. program (2020 – 2022)
CDA Final Project: The Tennessee Private Wells Project: Estimating Alternative Water Sources, Reliant Populations, & Contaminant Risk in Rural Tennessee
2. Kayla M. Anderson, Community Development & Action M.Ed. program (2018 – 2020)
Thesis: 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.
 - 2019 - 2020 Peabody Honors Scholarship, Vanderbilt University
 - 2019 - 2020 Jere Phillips Honors Scholarship, Vanderbilt University
 - 2019 Russell G. Hamilton Student-Faculty Summer Research Grant, Vanderbilt University

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3. Katherine Allison, Community Development & Action M.Ed. program (2018 – 2020)
CDA Final Project: Sumner County Climate Resiliency.

Professional Students (Primary Mentor for MPH Thesis Project):

1. Ryan W. Dalforno, Global Health, Vanderbilt University School of Medicine (2022 – present)

Professional Students (Mentoring committee member):

1. Caroline Morkel (Public Health-Health Policy, Vanderbilt University School of Medicine, 2021 - present).

Masters/Professional Students:

1. Meena Muthusubramanian, Data Science Institute (DSI), Vanderbilt University (2020-2022)
2. Juan C. Martinez, Environmental Science, Engineering and Computer Science, Vanderbilt University (2020 – 2021)

Undergraduate Students (Vanderbilt University Honors Thesis/Scholars Primary Advisor)

1. Chris Bozorgmehr, SyBBURE Searle Undergraduate Research Program, \$6,000. (2022)
Project Title: Conducting Toxicological Profile of Regulated Drinking Water Contaminants
2. Chris Bozorgmehr, HOD Honors Program (2021-2023)
Working Honors Thesis: A Comparison of Toxicological Evidence of Drinking Water Contaminants
3. Ritvik Singh, Vanderbilt University Summer Honors Scholar, \$5,000. (2022)
Project Title: Building a Comprehensive Drinking Water Database
4. Aakash Manapat, Vanderbilt University Summer Research Program. Littlejohn Summer Research Scholar, \$6,000. (2021)
Project Title: Forever chemicals in Tennessee? Potential Public health consequences of PFAS
5. Ashley Kim, Vanderbilt University Summer Research Program. Littlejohn Summer Research Scholar, \$6,000. (2021)
Project Title: Association between Fluoride Levels in Tennessee Community Water Drinking Water Systems and Caries
6. Catherine Paxton, HOD Honors Program (2019-2020)
Honors Thesis: Retaining an essential workforce: A quantitative analysis of workforce retention factors among water operators in Tennessee
7. Natalie Singer, HOD Honors Program (2018-2019)
Honors Thesis: A geospatial temporal approach to fatal and non-fatal opioid overdoses in Massachusetts

Undergraduate Students:

1. Emily Doehring, Human and Organizational Development and Computer Science (2023 – present)
2. Bianca Castillo, Medicine, Health, & Society, and Spanish (2023- present)
3. Eleanor Crone, Public Policy and Climate Studies (2022 – present)
4. Meiyun (Shirley) Wu, Computer Science and Business (2022 - present)
5. Samantha Wyman, Environmental Sociology (2022 – 2023)
6. Chris Bozorgmehr, Human and Organizational Development and Neuroscience (2021-present)
7. Marie A. Caiola, Law, History & Society, Cognitive Studies, and Data Science (2020 – present)
8. Minoli G. Fernando, Environmental Sociology (2021-present)
9. Kaitlin E. Spiridellis, Human and Organizational Development, Spanish, and Sustainability (2021-present)
10. Aakash Manapat, Chemistry and Physics (2020 – present)
11. Ashley Kim, Human and Organizational Development & Medicine, Health, & Society Sociology (2019 -2022)
12. Ritvik Singh, Mathematics and Computer Science (2021-2022)
13. Cate M. Paxton, Human & Organizational Development and Art History (2019-2021)
14. Mia Dillon, Political Science, Vanderbilt University (2019-2021)
15. Ujjwal Jain, Computer Science and Mathematics (2020-2021)
16. Adrienne Parks, Medical, Health, & Society and Spanish (2019-2020)
17. Rachel Flores, Human and Organizational Development & Environmental Sociology (2019)
18. Dmitry P. Semenov, Human and Organizational Development and Computer Science (2018-2020)

ACADEMIC ADVISING

Professional Students Advising:

Omayya Horton (2022 cohort)
Amy Correia (2021 cohort)
Dylan DePriest (2021 cohort)
Lauren Scarborough (2021 cohort)
Katherine Rule (2020 cohort)
Devin Irish (2019 cohort)
Krishanna Prince (2019 cohort)

Undergraduate Advising: 23 – 29 students per semester

SERVICE

Professional Field

Editorial Leadership:

2023 Editorial Board Member, *Frontiers in Environmental Health* (Effective June 2023)

Committee/Conference Leadership:

2022 – 2024 *Planning Committee Member*, International Medical Geography Symposium (2024), Atlanta, GA, United States

2022 – 2024 *Secretary/Treasurer*, American Association of Geographers, Water Resources Specialty Group

2022 – 2023 *Mentor*, Mentoring Future Geographers, American Association of Geographers Annual Virtual Conference, Health and Medical Geography Specialty Group

2020 – 2022 *Invited Speaker*, Summer 2021 Fellowship Application Writing Boot Camp, Graduate and Professional School and Texas A&M University System (Louis Stokes Alliance for Minority Participation program)

2014 – 2017 *Student Representative*, American Association of Geographers, Spatial Analysis and Modeling Specialty Group

Journal Reviewer:

Environmental Justice
Environmental Research
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
Journal of Public Affairs
Nature Communications
Nature Water
PLOS ONE
Proceedings of the National Academy of Sciences of the United States of America
Public Health
Social Science & Medicine
Society & Natural Resources

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Sustainability

Systematic Reviews

The Journal of Rural Health

- Exceptional Reviewer (2016-2017)

The Professional Geographer

Water

Community/Industry

- 2018 – present *Chair*, Tennessee Drinking Water Stakeholders Committee
Members Organizations: Tennessee Department of Health (TDH),
Tennessee Department of Environment & Conservation (TDEC),
Tennessee Association of Utility Districts (TAUD), Vanderbilt University,
and Community Water Systems Operators
- 2020 *Invited Speaker*, Head Middle Magnet Prep School (6th-grade assembly).
Topic: In Your backyard: Environmental Justice and Climate Change in
Tennessee. Nashville, TN. (February 18, 2020)

Vanderbilt University

University-wide:

- 2022 *Invited Panelist*, Vanderbilt Reunion Weekend, Climate Change on the
Global Stage, and at Vanderbilt – Research, Response and Hope for The
Future
- 2022 – present *Member*, Green Fund Faculty Advisory Committee
- 2021 – present *Member*, Climate, Environment, and Energy Futures ([CEEF](#)) Working
Group, Office of the Provost
- 2021 – present *Member (Peabody College Representative)*, Trans-Institutional Major in
Climate Studies Planning Committee
- 2018 –2021 *Member*, Research IT, Faculty Advisory Committee
- 2020 –2021 *Member*, Sustainability Advisory Council
- 2018 –2019 *Chair*, Dr. Robert Bullard Day: Raising Awareness of Environmental and
Climate Justice Planning Committee
- 2018 –2020 *Member*, Vanderbilt Initiative for Interdisciplinary Geospatial Research
Advisory Committee

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- 2018 *Member, GIS Day(s) Planning Committee (coordinated keynote speaker, Mei-Po Kwan)*
- 2018 *Judge, 3MT Competition*
- 2018 *Invited Presenter, The Campaign Cabinet for Vanderbilt, Peabody Faculty Research Presentation*
- 2017 –2020 *Member, Data Science Champion for the Department of Human & Organizational Development to support Data Science Visions Working Group*
- 2017 –2018 *Member, Vanderbilt Initiative for Smart City Operations Research (VISOR) Trans-Institutional Initiative, Gentrification/Equitable Development Workshop Data Science Planning Committee*

Peabody College:

- 2021 *Invited Presenter, Peabody Research Spotlight*
- 2021 *Invited Presenter, Faculty FaceTime Fridays (Office of Equity, Diversity & Inclusion)*
- 2020 *Invited Presenter, Peabody Research Methods and Strategies Seminar*

Department of Human and Organizational Development:

- 2019 –2020 *Member, Strategic Planning Committee*
- 2018 –2019 *Co-Chair, CRA Recruitment Committee*
- 2019 *Member, Teaching Observations for Tenure Review Committee*
- 2018 *Advisor, First-Year Student Advisor Program*
- 2018 –2019 *Member, CRA Ad Hoc CRA Health Track Committee on Curriculum/Program Studies*
- 2017 *Chair, CRA Recruitment Committee*
- 2017 *Co-Organizer, HOD schedule for Ph.D. Pre-VU Recruitment Event*