

JULIA CARDWELL

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CURRENT POSITION

University of North Carolina at Chapel Hill, Department of Geography and Environment

Teaching Assistant Professor, Spatial Data Science

Jan 2025 -

EDUCATION

University of North Carolina at Chapel Hill

Ph.D. Geography and Environment

Dec 2024

Dissertation Title: Weather-Related Disruptions to North Carolina's Road Networks

Committee: Dr. Charles Konrad (co-advisor), Dr. Paul Delamater (co-advisor),

Dr. Conge Song, Dr. Nikhil Kaza, Dr. Chris Fuhrmann

University of North Carolina at Chapel Hill

M.A. Geography

Dec 2021

Thesis Title: Trends in Recovery Aid Concentration after Hurricane Florence in North Carolina

Committee: Dr. Charles Konrad (advisor), Dr. Paul Delamater, Dr. Conge Song

Davidson College

B.A. Environmental Studies with Honors, *Magna Cum Laude*

May 2019

Data Science Minor

Thesis Title: Flooding and Floodplain Management as Part of the Waterscape: Flows of Water and Power in Charlotte, North Carolina

Advisor: Dr. Fuji Lozada

TEACHING EXPERIENCE

2024-2025

GEOG 491 (Spring): Introduction to Geographic Information Systems

GEOG 115 (Spring): Maps: Geographic Information from Babylon to Google

2023-2024

GEOG 215 (Summer): Introduction to Spatial Data Science

2022-2023

GEOG 215 (Summer): Introduction to Spatial Data Science

RESEARCH EXPERIENCE

Graduate Research Assistant

Aug 2020 - Dec 2024

Southeast Regional Climate Center

Graduate Research Assistant

May 2023 - Dec 2024

Dr. Paul Delamater

Graduate Research Assistant

Jan 2024 - Aug 2024

Dr. Nikhil Kaza

Data Verification Specialist

May 2023 - Dec 2024

The Odum Institute for Research in Social Science

Graduate Research Assistant

Jan 2021 - Dec 2021

Data-Driven EnviroLab, Department of Public Policy

PEER REVIEWED PAPERS

Cardwell, J., Delamater, P. L., Konrad, C. E. (2024). Impacts of weather-related road closures on daily habitual travel in North Carolina. *Journal of Transport Geography*, 121, 104043.

Cardwell, J., & Cowan, K. N. (2023). Local news sentiment towards FEMA recovery efforts after Hurricane Florence in North Carolina. *Disasters*, 47(4),1025-1046.

Cardwell, J. (2023). Community perceptions of a floodplain buyout program in Charlotte, North Carolina. *Natural Hazards*, 115(3),2141-2160.

Cardwell, J., & Konrad, C. E. (2023). Trends in recovery aid concentration following Hurricane Florence in North Carolina: Exploring the role of physical damage, community vulnerability, and Hurricane Matthew. *Environmental Hazards*, 22(2), 177-199.

Cardwell, J. (2022). Disruption to EMS service during flood scenarios in Western North Carolina. *Journal of Rural Social Science*, 37(3), 6.

Cardwell, J. (2022). Examining the shifting role of the human in disaster studies. *Journal of the Bulgarian Geographical Society*, 46, 51-55.

Cardwell, J. (2021). Trends in flood insurance behavior following hurricanes in North Carolina. *North Carolina Geographer*, 20, 2-12.

OTHER PUBLICATIONS

Martin, A., **Cardwell, J.**, Mundt, J., Kramer, R., & Beckham, T. (2020). Climate justice. In *North Carolina climate risk assessment and resilience plan* (Chapter 4). State of North Carolina.

SUBMITTED PAPERS

Wang, X. Johnson, E. Many, D. **Cardwell, J.**, Hsu, A., One Belt, Many Roads: Investigating China's Foreign Investment and Land-use Impacts in Southeast Asia, Under Review

Cardwell, J., Kaza, N., Densification, Dispersion Or Stagnation: Assessing the Changes in Urban Spatial Patterns in Metropolitan United States, Under Review

CONFERENCES AND TALKS

2024

Konrad, C., **Cardwell, J.**, & Fuhrmann, C. The development of an impacts-based high wind climatology that is tailored to social vulnerability, presented at Southern Appalachian Weather and Climate Workshop III, Roanoke, VA

Sheridan, S., Kalkstein, A., Fuhrmann, C., Silva, A., **Cardwell, J.**, & Konrad, C.
 Assessing the Wet-Bulb Globe Temperature as a predictor of overall mortality in summer,
 presented at American Association of Geographers, Honolulu, Hawaii
 Brooks, C.D. & **Cardwell, J.** Poop in the air, should we care? Estimating the educational
 impacts of hog farm pollution in North Carolina, presented at the annual meeting of the
 Association of Education Finance and Policy, Baltimore, MD
Cardwell, J. Weather-related Impacts to Local Travel in North Carolina, presented at
 American Association of Geographers, Virtual

2023

Brooks, C.D. & **Cardwell, J.** Poop in the air, should we care? Estimating the educational
 impacts of hog farm pollution in North Carolina, presented at the annual meeting of the
 Association of Public Policy Analysis & Management, Atlanta, GA
Cardwell, J. Methods to Analyze Disruption of EMS Service During Flood Scenarios,
 presented at American Association of Geographers, Denver, Colorado
Cardwell, J. Exploring the Impacts of Weather-Related Road Closures in North Carolina,
 presented at Highway Safety Research Center, Chapel Hill, North Carolina
Cardwell, J. Impacts to Local Travel During Weather-Related Road Closures in North
 Carolina, presented at Southeastern Division of the American Association of Geography,
 Norfolk, Virginia
 Brooks, C.D. & **Cardwell, J.** Poop in the air, should we care? Estimating the educational
 impacts of hog farm pollution in North Carolina, presented at the annual meeting of the
 Association of Education Finance and Policy, Denver, CO

2022

Cardwell, J. Analyzing Recovery Aid Concentration in North Carolina Following
 Hurricane Florence, presented at American Association of Geographers, Virtual

2021

Cardwell, J. Trends in NFIP (National Flood Insurance Program) Participation after
 Major Hurricanes in North Carolina, presented at Annual Meeting of the North Carolina
 Geographical Society, Virtual

AWARDS AND HONORS

Graduate Research Fellowship Program, National Science Foundation *2022*
 Honorable Mention
Phi Beta Kappa, Davidson College *2019*

GRANTS, FUNDING, AND FELLOWSHIPS

Summer Research Grant, UNC Chapel Hill , \$1,500 *2021*
Graduate Merit Fellow, UNC Chapel Hill, \$20,000 *2020-2021*
Weiss Urban Livability Fellow, UNC Chapel Hill, \$4,000 *2020-2021*

PEDAGOGICAL TRAINING

Associate Level, Center for the Integration of Teaching and Learning *Spring 2024-Present*
Introduction to Evidence-Based Undergraduate STEM Teaching *Jun-Aug 2024*
UNC Institute on College Teaching *Aug 2024*

DIVERSITY AND INCLUSION TRAINING

UNC Digital Accessibility Training *May 2024*
SafeZone (LGBTQ+ Awareness Training) *May 2024*
Mental Health First Aid Training *Aug 2024*

SKILLS

Languages: R, Python, VB.NET, JavaScript, Stata
Technologies: ArcGIS Pro, ArcMap, ArcGIS Online, QGIS, Google Earth Engine, SPSS, ENVI, cluster computing

UNIVERSITY SERVICE

Graduate Student Representative, Faculty Committee *2023-2024*
Co-President, Graduate Association of Geography Students *2022-2023*
Graduate Student Representative, Graduate Committee *2020-2022*

AFFILIATIONS

American Association of Geographers