AARON B. FLORES
School of Geographical Sciences & Urban Planning (SGSUP)
Arizona State University
Lattie F. Coor Hall, 5522 (5th floor)
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CURRENT APPOINTMENT

Arizona State University

2023- Assistant Professor, School of Geographical Sciences & Urban Planning

Affiliate Faculty, Institute of Social Science Research

Affiliate Faculty, Center for Latina/os and American Politics Research

Affiliate Faculty, Southwest Interdisciplinary Research Center

2022-2023 Presidential Postdoctoral Scholar, School of Geographical Sciences & Urban Planning

EDUCATION

2018-2022 **Ph.D.,** Department of Geography, University of Utah
Dissertation title: Geographical Assessment of Federally-Overlooked Flood Risk Inequities in the Conterminous United States

2016-2018 **M.S.,** Department of Geosciences, Texas Tech University
Thesis title: Measuring Vulnerability to Extreme Heat in Lubbock, Texas Using a Heat Vulnerability Index

2010-2015 **B.A.,** Department of Geosciences, Texas Tech University

PUBLICATIONS

Publications Notes:

- Undergraduate student coauthors are marked with * and graduate student coauthors are marked with **.

20. Best, K., He, Qian, **Flores, A.**, Gu, D., Howell, J., Johnson, D., Liao, Y., Reilly, A., Rumbach, A., Sheldon, T., Siders, A.R., Wong-Parodi, G., Young, R., Niemeier, D. (2026). Bridging Community Resilience and Local Planning for Climate Justice. *Climate Risk Management*, *51*, 100776.

19. **Molla, A., **Flores, A.**, Sailor, D. (2025). Addressing Data Gaps and Disparities in Access to Air Quality Information: A Case Study of Maricopa County, Arizona. *Population and Environment, 47*(27).

18. **Flores, A.**, Collins, T., Grineski, S., Amodeo, M., Porter, J., Sampson, C., Wing, O. (2025). Federally-Overlooked Flood Risk Inequities in the Conterminous United States. *Scientific Reports, 15*(1), 10678.

17. **Yu, Y., **Flores, A.**, Meerow, S., Connor, D., Braswell, A., Leyk, S. (2025). Flood Risk and the Built Environment: Big Property Data for Vulnerability and Environmental Justice Analysis. *Population and Environment, 47*(14).

16. Clark, A., Collins, T., Grineski, S., Brewer, S., **Flores, A.** (2025). Comparative Assessment of

Residential Property Values at Risk to Flooding: The Case of Utah, USA. *International Journal of Disaster Risk Reduction, 118*, 105247.

15. Lynch, V., Sullivan, J., **Flores, A.**, Xie, X., Aggarwal, S., Nethery, R., Kioumourtzoglou, M.A., Nigra, A., Parks, R. (2025). Large Floods Drive Changes in Cause-Specific Mortality in the United States. *Nature Medicine, 31*, 663-671.

    Featured: ABC15 Arizona, NIEHS Papers of the Month (February/March), ASU News.

14. **Molla, A., Sailor, D., **Flores, A.** (2025). Exploring Air Temperature Variability and Socio-Demographic Inequalities in Heat Exposure through Machine Learning: A Case Study of Maricopa County, Arizona. *Urban Climate, 59*, 102276.

13. **Flores, A.**, Sullivan, J., **Yu, Y., Friedrich, H. (2024). Health Disparities in the Aftermath of Flood Events: A Review of Physical and Mental Health Outcomes with Methodological Considerations in the United States. *Current Environmental Health Reports*, *11*, 238-254.

Appointment at ASU as Assistant Professor begins.

12. Mullen, C., Grineski, S., Collins, T., **Flores, A.** (2023). Air Quality Sensors and Distributional Environmental Justice: A Case Study of Salt Lake County, Utah. *Environmental Sociology*, *10*(2), 179-191.

11. **Flores, A.**, Collins, T., Grineski, S., Amodeo, M., Porter, J., Sampson, C., Wing, O. (2022). Federally-Overlooked Flood Risk Inequities in Houston, Texas: Novel Insights based on Dasymetric Mapping and State-of-the-Art Flood Modeling. *Annals of the American Association of Geographers*, *113*(1), 240-260

10. Shaker, Y., Grineski, S., Collins, T., **Flores, A.** (2022). Redlining, Racism, and Food Access in US Urban Cores. *Agriculture and Human Values*, *40*(1), 101-112.

Appointment at ASU as Presidential Postdoc begins. Any publication below this point was not published during my appointment at ASU.

9. Mullen, C., **Flores, A.**, Grineski, S., Collins, T. (2022). Exploring the Distributional Environmental Justice Implications of a Non-Governmental Network of Air Quality Monitoring Sensors in Los Angeles County. *Environmental Research*, *206*, 112612.

8. Renteria, R., Grineski, S., Collins, T., **Flores, A.**, *Trego, S. (2021). Social disparities in neighborhood heat in the Northeast United States. *Environmental Research*, *203*, 111805.

7. **Flores, A.**, Collins, T., Grineski, S., *Griego, A., Mullen, C., Nadybal, S., Renteria, R., Rubio, R., Shaker, Y., *Trego, S. (2020). Environmental Injustice in the Disaster Cycle: Hurricane Harvey and the Texas Gulf Coast. *Environmental Justice, 14*(2), 146-158.

6. **Flores, A.**, *Castor, A., Grineski, S., Collins, T., Mullen, C. (2020). Petrochemical releases disproportionately affected socially vulnerable populations along the Texas Gulf Coast after Hurricane Harvey. *Population and Environment, 42*(3), 279-301.

5. *Griego, A., **Flores, A.**, Collins, T., Grineski, S. (2020). Social vulnerability, disaster assistance, and recovery: A population-based study of Hurricane Harvey in Greater Houston, Texas. *International Journal of Disaster Risk Reduction, 51*, 101766.

4. **Flores, A.**, Collins, T., Grineski, S., Chakraborty, J. (2020). Disparities in Health Impacts and Access to Healthcare among Houston Area Residents after Hurricane Harvey. *Public Health Reports, 135*(4), 511–523.

3. **Flores, A.**, Collins, T., Grineski, S., Chakraborty, J. (2020). Social vulnerability to Hurricane Harvey: Unmet needs and adverse event experiences in Greater Houston, Texas. *International Journal of Disaster Risk Reduction, 46*, 101521.

2. Grineski, S., **Flores, A.**, Collins, T., Chakraborty, J. (2020). The impact of Hurricane Harvey on Greater Houston households: Comparing pre-event preparedness with post-event health effects, event exposures, and recovery. *Disasters, 44*(2), 408-432.

1. Collins, T., Grineski, S., Chakraborty, J., **Flores, A.** (2019). Environmental injustice and Hurricane Harvey: a household-level study of socially disparate flood exposures in Greater Houston, Texas, USA. *Environmental Research*, *179*, 108772.

BOOK CHAPTERS AND REVIEWS

4. Grineski, S., **Flores, A.**, Collins, T. (2024). Hurricane Harvey as a Natech Disaster (USA). In: Gill, D., Ritchie, L., Campbell N. (eds) *Encyclopedia of Technological Hazards and Disasters in the Social Sciences*. *Edward Elgar Publishing*.

3. Chakraborty, J., Collins, T., **Flores, A.**, Grineski, S. (2023). Hurricanes, Floods, and Environmental Inequality. In: Long, M., Lynch, M., Stretesky, P. (eds) *Handbook of Inequality and the Environment. Edward Elgar Publishing.*

Appointment at ASU as Assistant Professor begins.

2. **Flores, A.** 2022. Book Review–Flood Risk Management: Global Case Studies of Governance, Policy, and Communities. *Water Economics and Policy*, *8*(2), 2180004.

1. Nadybal, S., Grineski, S., Collins, T., *Castor, A., **Flores, A.**, *Griego, A., Mullen, C., Rubio, R. (2020). Environmental Justice in the US and Beyond: Frameworks, Evidence, and Social Action. In: Lersch, K., Chakraborty, J. (eds) *Geographies of Behavioural Health, Crime, and Disorder*. GeoJournal Library, vol 126. Springer, Cham.

SELECTED ARTICLES IN PROGRESS

9. **Flores, A.**, Collins, T., Wilson, B., Tate, E., Emrich, C. Redlines and Floodscapes: Historical Housing Discrimination and Contemporary Urban Flood Exposure in the United States. (Under Review).

8. **Flores, A.**, Larson, K., Meerow, S., **Gyanwali, S. Comparing Perceptions of Flood Risk in FEMA and Federally-Overlooked Flood Zones in Metropolitan Phoenix, Arizona. (Under Review).

7. **Song, T., **Flores, A.**, **Vogel, A., Sheehan, C., Ware, K., Gaucin, M. Measuring Changes in Spatial Inequality and Clustering of Food Insecurity During and After the Pandemic in Arizona. (Under Review).

6. **Yu, Y., **Flores, A.**, Meerow, S., Gupta, S., Lemar, S., Connor, D. A Multidimensional Building-level Assessment of Flood Vulnerability: A Trial Analysis for Harris County, Texas (Under Review).

5. **Shukla, R., **Flores, A.**, Hernandez-Cortes, D. Spatial Patterns of Access to Public EV Charging in Maricopa County, Arizona. (Under Review).

4. *Molla, A., **Flores, A.**, Sailor, D. Long-term Temperature Variation and Patterns in Heat Exposure Across U.S. Metropolitan Areas. (In progress).

3. **Karanja, J., **Flores, A.**, Vanos, J., Georgescu, M., Frazier, A., Hondula, D. Historical Redlining and Heat-Related 911 Calls in Phoenix, Arizona. (In Progress).

2. **Trego, S., **Flores, A.**, Meerow, S., Wright, M., Hondula, D. Spatial and Social Dimensions of Urban Greening: Assessing Plantable Areas in Phoenix, AZ. (In Progress).

1. **Trego, S., Meerow, S., **Flores, A.**, Larson, K. Heat Risk Perceptions in Phoenix, AZ: A Longitudinal Assessment. (In Progress).

TECHNICAL REPORTS/DASHBOARDS

5. Sheehan, C., Ngo, C., **Flores A.** (2026). Pet Adoption Outcomes Dashboard. Internal interactive report prepared for Lost Our Home Pet Rescue, Tempe, Arizona.

4. Sheehan, C., **Flores, A.**, Ngo, C. (2025). Current Population Survey Food Security Assessment Questions: Identifying Key Indicators for College Student Populations. Internal report prepared for ASU Counseling Services.

3. **Flores, A.**, Ngo, C., Sheehan, C. (2025). Access to SNAP and WIC Grocery Stores Near Arizona's Public Universities. Arizona Board of Regents and Arizona State University.

2. **Song, T., **Flores, A.**, **Vogel, A., Ngo, C., Sheehan, C. (2025). Mapping Food Insecurity: Spatial Dynamics and Social Determinants in Arizona During and After the Pandemic. St. Mary's Food Bank and Arizona State University.

1. **Vogel, A., **Flores, A.**, Song, T., Sheehan, C. (2024). An Interactive Geospatial Dashboard to View Food Insecurity in Arizona. [ArcGIS Dashboard]. St. Mary's Food Bank and Arizona State University.

Featured: Arizona Horizon, ASU News, Route Fifty, Government Technology, StateScoop, KJZZ

RESEARCH GRANTS

Awarded External Research Grants

2025-2029 PI. National Science Foundation, CHIRRPs. Research Coordination Network (RCN): Catalyzing Flood Justice in the USA. Co-PIs: Beth Tellman, Antonia Sebastian, Eric Tate, Marccus Hendricks. **Total award: $500,000.** *Grant terminated in April 2025 for not aligning with NSF priorities.*

2023-2024 PI. National Science Foundation, Analytics for Equity Initiative. Holistic spatial flood vulnerability assessment for historically underserved communities: A trial analysis for Houston, Texas. Co-PIs: Dylan Connor, Sara Meerow. **Total award: $74,561**

Awarded Internal Research Grants at ASU

2025-2026 Co-I. Office of University Affairs. ASU 100-level Modules: Principled Innovation and Social Embeddedness in the Social Sciences. Co-PI: Connor Sheehan. **Total award: $20,000.**

2024-2025 Co-I. Institute for Social Science Research (ISSR) Seed Grant. Heated Debate? Unpacking

US Public Opinion on Flooding and Extreme Heat in a Changing Climate. PI: Sara Meerow. **Total award: $8,000.**

2023-2024 PI. Institute for Social Science Research (ISSR) Seed Grant. Uncovering the Factors Driving Urbanization in Flood Zones: A Spatial and Qualitative Analysis. Co-PIs: Hallie Eakin, Beth Tellman, Dylan Connor. **Total award: $8,000.**

PRESENTATIONS

Presentation Notes:

- Undergraduate student coauthors are marked with * and graduate student coauthors are marked with **.

Invited

11. **Vogel, A., Gaucin, M., **Flores, A.**, Sheehan, C., Ngo, C. Data Partnerships That Create Actionable Insights: ASU and St. Mary's Food Bank Data Dashboards*. State Higher Education Executive Officers Association, Basic Needs Data Academy*. Phoenix, AZ. October 9, 2025. [Panel Discussion. Moderated by: Roxanne Murphy, Arizona Board of Regents].

10. **Flores, A.**, Clark, A., Collins, T., Grineski, S., Brewer, S. Assessing residential property values at risk to federally-overlooked flooding: The case of Utah, USA. *National Flood Association Annual Conference*. Scottsdale, AZ. April 8, 2025.

9. **Flores, A.** Panelist for Professional Development: Early PhDs Breakout Group. *Bill Anderson Fund 4th Fall Workshop*, Arizona State University. Tempe, AZ. October 14, 2024.

8. **Flores, A.** Exploring Environmental Injustice in Floods, Heat, and Air Quality. Southwest Interdisciplinary Research Center (SIRC) Health Equity Lecture Series. Arizona State University. Phoenix, AZ. February 15, 2024.

Appointment at ASU as Assistant Professor begins.

7. **Flores, A.** Environmental Justice and Federally-Overlooked Flood Risk. *Bill Anderson Fund 3rd Fall Workshop*. Arizona State University. Tempe, AZ. October 13, 2022.

6. **Flores, A.** Geographical Assessment of Federally-Overlooked Flood Risk Inequities in the Conterminous United States. *School of Geography, Development & Environment Colloquium*. University of Arizona. Tucson, AZ. September 23, 2022.

5. **Flores, A.** Environmental Justice and Flood Hazards: Future Research Directions. Research Incubator, *North American Alliance of Hazards and Disaster Research Institutes*. May 13, 2022.

Appointment at ASU as Presidential Postdoc begins. Any presentation below this point was not during my appointment at ASU.

4. **Flores, A.** Geographical Assessment of Flood Risk Inequities in the Conterminous United States. Interdisciplinary Studies Academic Exchange Session, *Conference of Ford Fellows*. October 9, 2020.

3. **Flores, A.**, Collins, T., Grineski, S., Chakraborty, J. Hurricane Harvey: Impacts on vulnerable populations. *HurriCon: Science at the Intersection of Hurricanes and the Populated Coast*. East Carolina University. Greenville, NC. February 27–28, 2020.

2. Grineski, S., Collins, T., **Flores, A.**, Mullen, C., Rubio, R., *Trego, S. Understanding Environmental

Justice. *Qualtrics event for Hispanic Heritage Month*. September 23, 2020.

1. Grineski, S., **Flores, A.**, Collins, T., Chakraborty, J. How Mitigation Helped Houston Households in Hurricane Harvey. *Natural Hazards Center: Making Mitigation Work Webinar Series*. University of Colorado-Boulder. February 11, 2020.

National

26. **Flores, A.**, **Gyanwali, S., **Shukla, R., Kato, A., Gurney, K. Unequal Emissions: Social and Built Environment Drivers of Fossil Fuel CO2 Across Arizona Neighborhoods. *American Association of Geographers Annual Meeting.* San Francisco, CA. March 20, 2026.

25. **Karanja, J., Vanos, J., Georgescu, M., Frazier, A., Hondula, D., **Flores, A.** Historical Redlining and Heat-Related 911 Calls in Phoenix, Arizona. *Natural Hazards Center Researchers Meeting* Broomfield, CO. July 16, 2025.

24. **Trego, S., **Flores, A.**, Meerow, S., Wright, M. Spatial and Social Dimensions of Urban Greening: Assessing Plantable Areas in Phoenix. *Natural Hazards Center Researchers Meeting*. University of Colorado-Boulder. Broomfield, CO. July 16, 2025.

23. **Flores, A.** Catalyzing Flood Justice in the USA. *Natural Hazards Center Workshop*. University of Colorado-Boulder. Broomfield, CO. July 14, 2025. [Panel Discussion].

22. **Gyanwali, S., **Flores, A.**, Connor, D., **Yu, Y., Cliff, A. Analyzing Urban Development in Federally-Overlooked and FEMA Flood Zones in Greater Houston, Texas. *Association of State Floodplain Managers Annual Meeting.* New Orleans, LA. May 22, 2025.

21. **Gyanwali, S., **Flores, A.**, Connor, D., **Yu, Y., Cliff, A. Analyzing Urban Development in Federally-Overlooked and FEMA Flood Zones in Greater Houston, Texas. *American Association of Geographers Annual Meeting.* Detroit, MI. March 28, 2025.

20. **Flores, A.**, **Gyanwali, S. Unmapped and Non-Digitized Flood Zones: Examining Gaps in U.S. Flood Risk. *American Association of Geographers Annual Meeting.* Detroit, MI. March 27, 2025.

19. **Molla, A., Sailor, D., **Flores, A.** A Machine Learning Approach to Predict Air Temperature and Explore Socio-Demographic Inequalities in Heat Exposure: A Case Study of Maricopa County, Arizona. *American Association of Geographers Annual Meeting.* Detroit, MI. March 27, 2025.

18. **Seong, T., **Flores, A.**, **Vogel, A., Sheehan, C. Spatiotemporal Shifts in Food Insecurity and Determinants in Post-Pandemic. *American Association of Geographers Annual Meeting.* Detroit, MI. March 27, 2025.

17. **Trego, S., Meerow, S., **Flores, A.** Spatial and Social Aspects of Urban Greening: Analyzing the Distribution of Plantable Areas and Tree Canopy Investments in Phoenix, AZ. *American Association of Geographers Annual Meeting.* Detroit, MI. March 26, 2025.

16. **Vogel, A., **Seong, T., **Flores, A.**, Sheehan, C., Ware, K., Gaucin, M. A Co-Produced GIS Dashboard Addressing Food Insecurity in Arizona. *American Association of Geographers Annual Meeting.* Detroit, MI. March 25, 2025.

15. **Shukla, R., **Flores, A.**, Hernandez-Cortes, D. Equity and Distributional Justice in Phoenix Metro Area's EV Charging Landscape. *American Association of Geographers Annual Meeting.* Detroit, MI.

March 24, 2025.

14. **Yu, Y., Connor, D., **Flores, A.**, Meerow, S. Spatial Assessment of Flood Vulnerability for Disadvantaged Communities in Harris County, TX. *American Geophysical Union Annual Meeting*, Washington D.C. December 11, 2024.

13. **Flores, A.**, Meerow, S., Larson, K. Inequities in Flood Exposure and Risk Perception between Residents in FEMA Flood Zones and Federally-Overlooked Flood Zones in Maricopa County, Arizona. *American Association of Geographers Annual Meeting.* Honolulu, HI. April 20, 2024.

12. **Yu, Y., Connor, D., **Flores, A.**, Meerow, S. Spatial Assessment of Flood Vulnerability for Disadvantaged Communities in Harris County, TX. *American Association of Geographers Annual Meeting.* Honolulu, HI. April 2024.

11. **Molla, A., **Flores, A.**, Sailor, D. Addressing Data Gaps and Disparities in Access to Air Quality Information: A Case Study of Maricopa County, Arizona. *American Association of Geographers Annual Meeting.* Honolulu, HI. April 2024.

10. Tellman, B., Giezendanner, J., Zhang, Z., Frame, J., Belury, L., Friedrich, H., Sullivan, J., Doyle, C., Laurel, A., Buxton, C., Nair, T., Popien, P., Chakrabarti, S., Islam, A., Sharma, P., **Flores. A.** Addressing and Understanding Compound Flood-Risk from Floodplain Development to Flood Injustice with Satellites and Machine Learning. *American Geophysical Union Annual Meeting*, San Francisco, CA. December 2023.

Appointment at ASU as Assistant Professor begins.

9. **Flores, A.**, Meerow, S., Larson, K. Inequities in Flood Exposure and Risk Perception between Residents in FEMA Flood Zones and Federally-Overlooked Flood Zones in Maricopa County, Arizona. *Natural Hazards Center Researchers Meeting*. University of Colorado-Boulder. Broomfield, CO. July 12, 2023.

8. **Yu, Y., Connor, D., **Flores, A.**, Meerow, S. Flood Risk and Urban Vulnerability in Misclassified FEMA Zones in Houston, Texas. *Natural Hazards Center Researchers Meeting*. University of Colorado-Boulder. Broomfield, CO. July 12, 2023.

7. **Flores, A.**, Collins, T., Grineski, S., Amodeo, M., Porter, J., Sampson, C., Wing, O. Federally-Overlooked Flood Risk Inequities in the Conterminous United States. *American Association of Geographers Annual Meeting*, Denver, CO. March 23, 2023.

Appointment at ASU as Presidential Postdoc begins. Any presentation below this point was not during my appointment at ASU.

6. **Flores, A.**, Collins, T., Grineski, S., Amodeo, M., Porter, J., Sampson, C., Wing, O. Flood Risk Inequities in Houston, Texas: Novel insights based on dasymetric mapping and state-of-the-art flood modeling. *American Association of Geographers Annual Meeting*, Seattle, WA. April 7–11, 2021.

5. **Flores, A.**, Collins, T., Grineski, S., Chakraborty, J. Social vulnerability to Hurricane Harvey: Unmet needs and adverse event experiences in Greater Houston, Texas. *American Association of Geographers Annual Meeting*, Denver, CO. [Conference cancelled]. April 6–10, 2020.

4. **Flores, A.**, Collins, T., Grineski, S., Chakraborty, J. Disparities in Health Impacts and Access to Care Among Houston Area Residents After Hurricane Harvey. *Natural Hazards Center Researchers*

Meeting. University of Colorado-Boulder. Broomfield, CO. July 17–18, 2019.

3. **Flores, A.**, Collins, T., Grineski, S., Chakraborty, J. Disparities in Health Impacts and Access to Care Among Houston Area Residents After Hurricane Harvey. *American Association of Geographers Annual Meeting*, Washington D.C. April 3–7, 2019.

2. **Flores, A.** Measuring Vulnerability to Extreme Heat in Lubbock, Texas Using a Heat Vulnerability Index. *American Association of Geographers Annual Meeting*, New Orleans, LA. April 10–14, 2018.

1. **Flores, A.** Creating a Heat Vulnerability Index for Lubbock, Texas. *American Association of Geographers Annual Meeting*, Boston, MA. [Poster presentation]. April 5–9, 2017.

Internal/Regional

8. *Rugar, S., Sheehan, C., **Flores, A.** (2026). Geolocating High Activity Rates and Low Licensing Rates of Dog Owners in Maricopa County." Presented to Maricopa County Animal Control. Presented online. February 2026.

7. **Flores, A.** Comparing Perceptions of Flood Risk in FEMA and Federally-Overlooked Flood Zones in a Semi-Arid Urban Environment. *Politics of Race, Immigration, and Ethnicity Consortium (PRIEC) Conference.* Arizona State University. Tempe, AZ. January 24, 2025.

6. **Flores, A.** SW-IFL: Equity and Social Vulnerability. *Urban Integrated Field Laboratory Principal Investigators Meeting*. U.S. Department of Energy, Earth and Environmental Systems Sciences Division. Washington D.C. October 29, 2024.

5. **Flores, A.**, **Molla, A., Sailor, D. Addressing Data Gaps and Disparities in Access to Air Quality Information: A Case Study of Maricopa County, Arizona. *Urban Integrated Field Laboratory Principal Investigators Meeting*. U.S. Department of Energy, Earth and Environmental Systems Sciences Division. Washington D.C. [Poster presentation]. October 28, 2024.

4. **Flores, A.** Examining Health Disparities and Healthcare Access among Houston Residents after Hurricane Harvey. *Spatial Analysis Research Center Workshop*. Arizona State University. Tempe, AZ. March 26, 2024.

Appointment at ASU begins.

3. **Flores, A.** Federally Overlooked Flood Risk in Houston, Texas: Environmental Justice Implications. *Student Research Day.* College of Social and Behavioral Science. University of Utah. Salt Lake City, UT. April 28, 2021.

2. **Flores, A.**, Collins, T., Grineski, S., Chakraborty, J. Social vulnerability to Hurricane Harvey: Unmet needs and adverse event experiences in Greater Houston, Texas. *Utah Disaster Resilience Symposium*. University of Utah. Salt Lake City, UT. [Poster presentation]. November 21, 2019.

1. **Flores, A.**, Collins, T., Grineski, S., Chakraborty, J. Disparities in Health Impacts and Access to Care Among Houston Area Residents After Hurricane Harvey. *Global Change & Sustainability Center 2019 Environment & Sustainability Research Symposium*, University of Utah, Salt Lake City, UT. [Poster presentation]. February 13, 2019.

TEACHING

Teaching Notes:

- § next to course name indicates it was a new course that did not exist in the School of Geographical Sciences and Urban Planning until I developed it and successfully had it approved for inclusion the curriculum.
- ϒ next to course name indicates that I developed new course materials (syllabus, lectures, in-class activities, assessments, and/or rubrics) for an existing course.

Arizona State University, School of Geographical Sciences & Urban Planning
Instructor

GIS 311: Geographic Information Science III, iCourse/Online.
Course Characteristics: 4 credit hours (1 lab), undergraduate level.

Course Description: In this course, students build upon the foundational concepts and technical skills introduced in GIS 211 to deepen their understanding of spatial data management and analysis. The course emphasizes the use of GIS as a platform for microcomputer-based spatial analysis and synthesis, introducing advanced topics such as digitizing, database organization, spatial retrieval, and cartographic graphics. Where GIS 211 focuses on foundational principles and applied practice in ArcGIS Pro, GIS 311 pushes students further into the design and execution of spatial workflows, challenging them to think critically about data structures, accuracy, and the implications of analytical decisions. Assessment in this course emphasizes both technical proficiency and applied problem-solving. Through exercises, projects, and lab work, students gain confidence in digitizing, organizing, and analyzing spatial data, while also learning how to communicate their findings effectively through maps and graphics. By the end of the course, students are equipped with the skills needed to design and implement robust spatial analyses, preparing them for more advanced GIS applications and professional research contexts.

Course taught: Fall 2025.

GIS 211: Geographic Information Science II, iCourse/Online.
Course Characteristics: 4 credit hours (1 lab), undergraduate level.

Course Description: In this course, I introduce students to the foundational concepts of GIScience while building practical, career-ready skills in ArcGIS Pro. The course combines conceptual learning with applied practice: students explore core topics such as spatial references (coordinate systems, scale, and projection), geodatabases, and the structure and management of spatial data. The labs provide hands-on experience in spatial data preparation, storage, retrieval, analysis, and geovisualization. I emphasize connections between the technical aspects of GIS and the broader questions my own research engages– such as how spatial data and analytical methods can be used to address issues of environmental justice, vulnerability, and resilience. Assignments are designed to move students from foundational competence to independent application. In addition to quizzes, lab exercises, and exams, students complete a capstone project in which they design and execute their own GIS analysis, applying spatial concepts to a topic of their choosing. This project empowers students to see themselves not just as learners, but as emerging spatial analysts capable of applying GIScience tools to real-world challenges. Through this blend of technical skill development and applied problem-solving, students leave the course prepared for advanced GIS coursework and equipped with transferable skills relevant across research and professional domains.

Course taught: Fall 2025.

GIS 470: Advanced Statistics for Geography and Planning, iCourse/Online.
Course Characteristics: 3 credit hours, upper division undergraduate.

Course Description: This course provides instruction and hands-on experience with multivariate statistics and their application to geography and planning. As this is an applied course, lectures and coursework focus more on the application and interpretation of multivariate techniques than on the mathematics behind the modelling approaches. Topics include: data visualization; correlation; simple linear regression;

and multiple regression. This course is designed to teach students how to conduct these techniques and to start programming in the "R" computer program. The course is developed with the assumption that students have taken an introductory statistics class and are familiar with computer programs.

Course taught: Fall 2024.

§ PUP 598: Planning for Resilience and Environmental Justice, iCourse/Online.
Course Characteristics: 3 credit hours, graduate level.

Course Description: I developed and launched this new course in the School of Geographical Sciences and Urban Planning to focus explicitly on the intersections of environmental justice, hazards, and urban resilience. The course introduces students to the historical and contemporary roots of environmental injustices, the roles of law and policy, and the three dimensions of environmental justice–distributive, procedural, and recognition. Students engage critically with seminal environmental justice texts, analyze current events, and participate in structured discussions to assess research and policy approaches. Applied components include the use of GIS to map environmental hazards and inequities, as well as a final project in which students critique or reimagine hazard mitigation plans with attention to justice and equity. Collectively, these elements provide students with both theoretical foundations and applied skills, preparing them to evaluate and address inequities in planning and hazard mitigation.

Course taught: Spring 2024, 2025.

ϒ GPH 314: Global Change, In-person.
Course Characteristics: 3 credit hours, undergraduate level.

Course Description: I redesigned this existing course to move beyond its traditional physical science emphasis and incorporate a strong social science dimension. Students not only learned the scientific foundations of processes such as climate change, deforestation, desertification, and drought, but also critically examined how these changes shape economies, governance, and social interactions across the globe. I structured assignments to push students beyond memorization and toward synthesis and application–for example, projects where they analyze claims about climate drivers, case studies of how global change unevenly impacts communities, and written reflections that connect scientific concepts with contemporary societal challenges. By pairing quantitative methods of detecting environmental change with frameworks of resilience and vulnerability, I encouraged students to see global change as both a physical and a social phenomenon. This blended approach helped students build skills in critical thinking, evidence evaluation, and interdisciplinary problem solving.

Course taught: Fall 2023.

Teaching Outside of ASU

Arizona Food Insecurity Dashboard Training

Workshop Description: This workshop trained staff from all four of Arizona's major food bank networks (St. Mary's Food Bank, United Food Bank, Community Food Bank of Southern Arizona, and Yuma Community Food Bank) on a demographic and geospatial dashboard our team developed to identify and respond to food insecurity at the census tract level. The workshop was funded by the Arizona Board of Regents and hosted at St. Mary's Food Bank. I co-led the workshop with Dr. Connor Sheehan (School of Social and Family Dynamics), graduate student Alexi Vogel, and undergraduate collaborators Sofia Ricci and Sophia Ruger. The workshop included an overview of the data sources and predictive model, hands-on navigation of the dashboard, and guided activities to extract actionable insights for participants' service areas. Representatives from St. Vincent de Paul and the Arizona Board of Regents also attended. Exit

surveys showed a 96% increase in participant confidence navigating the dashboard. The event was covered by ASU News and KJZZ. Participants received a digital credential and certificate of completion.

Appointment at ASU begins. Any teaching below this point was not during my appointment at ASU.

2020 Teaching Assistant | Environmental Health Disparities | Department of Sociology | University of Utah

2016-2018 Teaching Assistant | Physical Geography Lab | Department of Geosciences | Texas Tech University

Guest Lectures

2025 Understanding Urban Exposures: Using Data to Map Flooding, Heat, and Food Insecurity | Course: GPH 314: Global Change | School of Geographical Sciences & Urban Planning | Arizona State University

2024 Introduction to Environmental Justice | Course: PUP 190: Sustainable Cities | School of Geographical Sciences & Urban Planning | Arizona State University

2021 Geography of Hazard Risk | Course: AP Human Geography | Salt Lake Center for Science Education

2021 Flood Risk Inequities in Houston, Texas: Novel insights based on dasymetric mapping and state-of-the-art flood modeling | Course: Data Acquisition and Management | Department of Geosciences | Salt Lake Community College

2021 Hurricane Harvey: Impacts on vulnerable populations | Introduction to Environment and Sustainability | Course: Environmental and Sustainability Studies | University of Utah

HONORS AND AWARDS

2026-2028 **Enabling the Next Generation of Hazards and Disasters Fellowship**
National Science Foundation (NSF)

2026 **Nominated for Outstanding Teaching Professor Award in The College of Liberal Arts and Sciences**

2025 **Nominated for Outstanding Teaching Professor Award in The College of Liberal Arts and Sciences**

2025 **Nominated for Dr. Manuel Servín Faculty Award in the Chicano/Latino Faculty and Staff Association**

2025 **Serving University Needs (SUN) Award** (3 separate awards)

2024 **Serving University Needs (SUN) Award**

Appointment at ASU begins. Any honors/awards below this point were not during my appointment at ASU.

2022 **CGS/ProQuest Distinguished Dissertation Award in the Social Sciences Category** ($500)
Flores, A. Geographical Assessment of Federally-Overlooked Flood Risk Inequities in the Conterminous United States. University of Utah.

2022 **Rosalind Franklin Society Award in Science** ($1,000)
Flores, A., Collins, T., Grineski, S., *Griego, A., Mullen, C., Nadybal, S., Renteria, R., Rubio, R., Shaker, Y., *Trego, S. (2020). Environmental Injustice in the Disaster Cycle: Hurricane Harvey and the Texas Gulf Coast. *Environmental Justice, 14*(2), 146-158.

2020-2022 **Ford Foundation Predoctoral Fellowship** ($27,000/year)
Ford Foundation, National Academies of Science, Engineering, and Medicine.

2021 **Best Graduate Student Presentation at Student Research Day**
Flores, A. Federally Overlooked Flood Risk in Houston, Texas: Environmental Justice Implications College of Social and Behavioral Science, University of Utah.

2019-2020 **Graduate Student Excellence in Research**
Department of Geography, University of Utah.

2019-2020 **Hebert W. Gustafson Endowed Graduate Fellowship** ($7,950)
College of Social and Behavioral Science, University of Utah.

2019 **Jeanne X. Kasperson Award for Outstanding Graduate Paper in Hazards, Risks, and Disasters Specialty Group**
Flores, A., Collins, T., Grineski, S., Chakraborty, J. Disparities in Health Impacts and Access to Care among Houston Area Residents after Hurricane Harvey
American Association of Geographers Annual Meeting, Washington D.C.

2017-2018 **Sustainability Scholarship** ($1,000)
University Student Housing, Texas Tech University.

2017-2018 **Gary Elbow Scholarship** ($300)
Department of Geography, Texas Tech University.

2017 **Climate Engagement Program Fellow**
University of California at Santa Cruz.

STUDENTS

Doctoral Students (chair or co-chair)

Sophiya Gyanwali (PhD student in GIS) | Chair | School of Geographical Sciences & Urban Planning | Arizona State University | 2024-present.

Alamin Molla (PhD Candidate in GIS) | Co-Chair | School of Geographical Sciences & Urban Planning | Arizona State University | 2023-present.

Doctoral Students (Committee Member)

Consolata Macharia (PhD student in Geography) | School of Geographical Sciences & Urban Planning | Arizona State University | 2024-present.

Leonardo Prado (PhD student in Geography) | School of Geographical Sciences & Urban Planning | Arizona State University | 2025-present.

Shaylynn Trego (PhD Candidate in Geography) | School of Geographical Sciences & Urban Planning | Arizona State University | 2023-present.

Hyunho Lee (PhD Candidate in Geography) | School of Geographical Sciences & Urban Planning | Arizona State University | 2023-present.

Ritvik Shukla (PhD Candidate in Environmental Social Science) | School of Human Evolution and Social Change | Arizona State University | 2023-present.

Graduated

Yilei Yu (PhD, GIS) | School of Geographical Sciences & Urban Planning | Arizona State University | 2023-2025. *Dissertation title: Spatial Data Science for Natural Hazards and the Built Environment.*

Master's students

Mahin Rahman (MA student in Urban and Environmental Planning) | School of Geographical Sciences & Urban Planning | Arizona State University | 2025-present.

Graduated

Carson Metzler (MA, Geography) | School of Geographical Sciences & Urban Planning | Arizona State University | 2023-2025. *Thesis title: Sleeping in the Heat: Insights from the HeatSuite Phoenix Pilot Study.*

Bradly Mannix (MA, Geography) | School of Geographical Sciences & Urban Planning | Arizona State University | 2023-2025. *Thesis title: Urban Food Equity: Addressing Food Diversity Disparities in HOLC Redlined Communities of Phoenix.*

Barrett Honors Contracts at ASU

Lukas Domer, Fall 2023
Ethan Greenfield, Fall 2023

SERVICE

Internal Service to Arizona State University

2026 **Poster Judge |** Urban Climate Research Center Annual Poster Competition

2025- **ASU Athletics Excellence in Leadership, Impact, Team, and Education (E.L.I.T.E.) Committee**

2025- **E.L.I.T.E. Subcommittee on Competitive Performance**

2025 **Poster Judge |** Central Arizona-Phoenix Long-Term Ecological Research (CAP LTER) All Scientists Meeting

2024-2025 **Hiring Committee for Assistant Professor position in GIS |** School of Geographical Sciences & Urban Planning

2024- **Bill Anderson Fund Fall Workshop Planning Committee**

2024 **Poster Judge |** Urban Climate Research Center Annual Poster Competition

2023- **Faculty Honors Advisor for Geography and GIS** | School of Geographical Sciences & Urban Planning

2023- **Faculty Leadership Team |** Urban Climate Research Center | School of Geographical Sciences & Urban Planning

2023- **Colloquium Committee |** School of Geographical Sciences & Urban Planning

2023-2024 **Awards Committee |** School of Geographical Sciences & Urban Planning

2023 **Poster Judge |** Urban Climate Research Center Annual Poster Competition

Service to the Profession

2026-2028 **Editorial Board**, *Population and Environment*

2026 **Invited Participant, Workshop on Advancing Social and Physical Data Science to Reduce Flood Losses** | Hosted by the Natural Hazards Center and the National Oceanic and Atmospheric Administration (NOAA)

2026 **Session Co-Chair, American Association of Geographers** | Co-chaired a session with a graduate student titled: Advancing Flood Mitigation, Adaptation, and Resilience: Interdisciplinary Approaches to a Persistent Hazard

2025 **Focus Group Participant, United States Geological Survey |** Stakeholder Engagement for Water-Hazards Science and Response Project

2025 **Panel Organizer/Discussant, Natural Hazards Center Workshop** | Developed and participated in panel session titled**:** The Future of Flood Risk Reduction, Recovery, and Adaptation

2024 **Session Co-Chair, American Association of Geographers** | Co-chaired a session with a graduate student titled: Environmental Data Deserts: Understanding the Causes and Consequences of the Unequal Coverage of Environmental Monitoring Networks

2024 **Session Co-Chair, American Association of Geographers** | Co-chaired a session titled: Examining Flood Injustice from Exposure to Recovery

2023 **Reviewer, Connecticut Sea Grant**

Peer Reviewer | *Annals of the American Association of Geographers*, *Environmental Justice*, *Landscape and Urban Planning, Journal of Environmental Studies and Sciences, Climate Risk Management, Frontiers in Environmental Science, Frontiers in Human Dynamics, Natural Hazards Review, PLOS ONE, Population and Environment, City and Environment Interactions, Environmental Sociology, Sustainable Cities and Society, Journal of Water Resources Planning and Management, Oxford Open Climate Change, Cities, GeoHealth, Nature Communications, One Earth*

PROFESSIONAL TRAINING

2025 **Work+ Supervisor Certification, Arizona State University**

2024 **Attendee, Mentoring in Teams hosted by ASU Graduate College** [online panelists: Drs. Amber Wutich and Nancy Grimm]

2023 **Trainee, ACUE Certificate in Fostering a Culture of Belonging**