

Sarah (LeBarron) Bardin

Senior Policy Researcher and PhD Student

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EDUCATION

Arizona State University (expected 2024)

PhD in Geography

Dissertation Working Title: *What Works Where: A Spatial Approach to Evidence-Based Policymaking*

Advisor: Dr. Peter Kedron

Arizona State University 2021

M.A. in Geography

University of Chicago 2015

A.B. in Public Policy, *departmental honors*

A.B. in Political Science, *general honors*

PROFESSIONAL RESEARCH EXPERIENCE

2023-Present **Senior Policy Researcher**, Children Youth & Families, Mathematica

2022-Present **Innovation Co-Lead**, Human Services, Mathematica

2021-2023 **Researcher**, Children Youth & Families, Mathematica

2020-2021 **Research Analyst**, Children Youth & Families, Mathematica

2018-2019 **Senior Statistical Programmer**, Human Services, Mathematica

2015-2018 **Research Assistant and Programmer**, Human Services, Mathematica

ACADEMIC RESEARCH EXPERIENCE

2021- **NSF Human Environment and Geographic Sciences**

Transforming Theory-building and STEM Education by Performing Reproductions in the Geographical Sciences

Co-Principal Investigators: Dr. Joseph Holler and Dr. Peter Kedron

2019-2021 **NSF Human Environment and Geographic Sciences**

Multi-Scale Local Statistical Modeling Frameworks

Principal Investigator: Dr. A. Stewart Fotheringham

PUBLICATIONS

Google Scholar: <https://scholar.google.com/citations?hl=en&user=SnVpzg0AAAAJ>

ARTICLES IN SUBMISSION

05. Kedron, P., **Bardin, S.**, Holler, J., Cliff, S., Fuller, K., Gilman, J., Grady, B., Seely, M., Van Zandergen, A., Yang, W., Yang, X. (Under Revision) Learning to improve geographical analysis using reproductions of studies of COVID-19. *Geographical Analysis*.

04. **Bardin, S.**, Fotheringham, A.S. (Under Revision) When everyone's doing it: the effects of spatial context and social determinants of health on teen birth rates, *Health & Place*.

03. Kedron, P., Hoffman, T., **Bardin, S.** (Invited, Under Review) Reproducibility and Replicability in GeoAI. *Handbook of Geospatial Artificial Intelligence*. CRC Press/Taylor Francis.

02. Kedron, P., Holler, J., **Bardin, S.** (In Prep) Reproducible research practices and barriers to reproducible research: Insights from a survey of geographic researchers. *Annals of the Association of American Geographers*
01. Kedron, P., Holler, J., **Bardin, S.** (In Prep) Replicability in Geography: A survey of geographic researchers sheds light on what we mean and if we can. *Annals of the Association of American Geographers*

PEER-REVIEWED JOURNAL ARTICLES

08. Harrati, A., **Bardin, S.**, Mann, D.R. (2023) Spatial distribution in disaster risk vulnerability for people with disabilities in the U.S. *Int'l Journal of Disaster Risk Reduction*, (<https://doi.org/10.1016/j.ijdrr.2023.103571>)
07. Oshan, T.M., Wolf, L., Sachdeva, M., **Bardin, S.**, Fotheringham, A.S. (2022) A scoping review on the multiplicity of scale in spatial analysis. *Journal of Geographical Systems*, (<https://doi.org/10.1007/s10109-022-00384-8>)
06. Kedron, P., **Bardin, S.**, Hoffman, T., Sachdeva, M., Quick, M., Holler, J. (2022) A replication of DiMaggio et al. in Phoenix, AZ. *Annals of Epidemiology*, 74: 8-14 (<https://doi.org/10.1016/j.annepidem.2022.05.005>)
05. Yu, H., Li, J., **Bardin, S.**, Gu, H., Fan, C. (2021) Spatiotemporal dynamic of COVID-19 diffusion in China: A dynamic spatial autoregressive model analysis. *ISPRS Int'l Journal of Geo-Information*, (<https://doi.org/10.3390/ijgi10080510>)
04. Gola, A.A., Figueroa, H., **Bardin, S.**, Gearan, E. (2021) Reaching a vulnerable population: Why adolescents participate in the National School Lunch Program. *Journal of Adolescent Health*, (<https://doi.org/10.1016/j.jadohealth.2021.01.034>)
03. **Bardin, S.**, Gola, A.A. (2021) Analyzing the association between student weight status and school meal participation: Evidence from the School Nutrition and Meal Cost Study. *Nutrients*, 13(1), 17 (<https://doi.org/10.3390/nu13010017>)
02. Kranker, K., **Bardin, S.**, Lee Luca, D., O'Neil, S. (2020). Estimating the incidence of unintended births and pregnancies at the sub-state level to inform program design. *PloS One*, 15(10), e0240407 (<https://doi.org/10.1371/journal.pone.0240407>)
01. **Bardin, S.**, Washburn, L., Gearan, E. (2020) Disparities in the healthfulness of school food environments and the nutritional quality of school lunches. *Nutrients*, 12(8), 2375 (<https://doi.org/10.3390/nu12082375>)

PEER-REVIEWED CONFERENCE PROCEEDINGS

02. **Bardin, S.**, Kedron, P. (2022). A geographic perspective on place-based policies. Association of Public Policy Analysis and Management, Fall Conference.
01. Kedron, P., **Bardin, S.** (2021) A vision of veridical spatial data science. *Spatial Data Science Symposium 2021*, eScholarship University of California. (<https://doi.org/10.25436/E20016>)

NON-REFEREED PUBLICATIONS – REPORTS AND POLICY BRIEFS

07. Adamek, K., **Bardin, S.**, O'Neil, S., Lee Luca, D. (2019) Accelerating Teen Pregnancy Prevention in Philips County, Arkansas and Coahoma County, Mississippi. *Mathematica Policy Research*
06. Keshaviah, A., Morris, E., Lee Luca, D., Lu, H., **Bardin, S.**, Staatz, C., Jones, D. (2019) Marijuana Legalization: Public Health, Safety, and Economic Factors for States to Consider. *Mathematica Policy Research*
05. Kranker, K., **Bardin, S.**, Lee Luca, D. (2018) Preventing Unintended Pregnancy: Hot Spot Analysis Report. *Mathematica Policy Research*
04. Stambaugh, L., Khoury, D., Domanico, R., Ringeisen, H., **LeBarron, S.**, Weigensberg, E. (2018) Understanding Post Adoption and Guardianship Instability for Children and Youth Who Exit Foster Care: Compendium of Policies and Practices. Research Triangle Park, NC: *RTI International*

03. Weigensberg, E., Cornwell, D., Leininger, L., Stagner, M., **LeBarron, S.**, Gellar, J., MacIntyre, S., Chapman, R., Maher, E.J., Pecora, P. (2018) Superutilization of Child Welfare, Medicaid, and Other Services. *Mathematica Policy Research*
02. Maher, E., Weigensberg, E., Stagner, M., Nysenbaum, J., **LeBarron, S.** (2016) Addressing Unaddressed Needs: Helping Agencies Target Services to Children and Caregivers in Child Welfare. *Mathematica Policy Research*
01. **LeBarron, S.** (2016) Modeling Transit Deserts: A Case Study of Chicago, IL. *Chicago Journal of Sociology*

CONFERENCES AND WORKSHOP ACTIVITY

- 2023 "BASIE (BAyeSian Intrepretation of Estimates)" Deke, J., **Bardin, S.** (Co-Presenters). *Workshop at Duke University School of Nursing*, June 21, 2023.
- 2022 "A geographic perspective on place-based policies" **Bardin, S.**, Kedron, P. (Co-Presenters). *Fall Conferences of the Association of Public Policy and Management*, November 16-19, 2022.
- "The scale of evidence: Understanding the effects of geographic context on learning rates across the United States." **Bardin, S.**, Kedron, P. *Global Conference on Economic Geography*. Dublin, Ireland, June 07-11, 2022
- "Bringing a Geographic Perspective to Policy" Kedron, P., **Bardin, S.** (Kedron Presenter). *Global Conference on Economic Geography*. Dublin, Ireland, June 07-11, 2022
- "Examining the effects of spatial context and social determinants of health on teen birth rates." **Bardin, S.**, Fotheringham, A.S. *Annual Meeting of the American Association of Geographers*. (Virtual Meeting due to Covid-19), February 25 – March 1, 2021
- "A Bayesian Framework for Accumulating Geographic Knowledge Through Replication." Kedron, P., **Bardin, S.** *Annual Meeting of the American Association of Geographers*. (Virtual Meeting due to Covid-19), February 25 – March 1, 2021.
- 2019 "Reasons Adolescents Participate or Do Not Participate in School Lunch" Gola, A.A., Figueroa, H., Gearan, E., **Bardin, S.** (Gola Presenter) *American Public Health Association*. Philadelphia, PA.
- "Factors Related to School Lunch Satisfaction among Adolescents" Figueroa, H., Gola, A.A., Dotter, D., **Bardin, S.** (Figueroa Presenter) *American Public Health Association*. Philadelphia, PA.

TEACHING EXPERIENCE

Instructor of Record	GIS 470: Advanced Statistics in Geography & Planning	Mar. 2022—Apr. 2022
Teaching Assistant	GIS 205: Intro to Geographical Information Science	Aug. 2021—Dec. 2021
Teaching Assistant	GIS 211: Geographical Information Science II	May 2021—Jul. 2021
Teaching Assistant	GIS 205: Intro to Geographical Information Science	Aug. 2020—Apr. 2021

COURSE DEVELOPMENT

GIS 470: Advanced Statistics in Geography and Planning

- Created three additional learning modules focused on working with spatial data using the programming software R, map making using the ggplot2 package in R, and examining the assumptions of linear regression and their implication for analyzing aggregate spatial data

GCU 351: Population Geography

- Created video lectures on mapmaking using ArcGIS Desktop and ArcGIS online for novice GIS users

GIS 471: Spatial Statistics for Geography and Planning

- Developed R coding materials to reinforce and complement existing ArcGIS-based course content

PROFESSIONAL SERVICE

UNIVERSITY AND SCHOOL SERVICE

- Vice President, SGSUP Graduate Student Council, ASU 2021—2022
- Student Representative, SGSUP Graduate Faculty Council, ASU 2021—2022
- Undergraduate Mentor, Rosenweig Scholars, University of Chicago 2015—Present
- Undergraduate Mentor, Institute of Politics, University of Chicago 2021—2022

PROFESSIONAL MEMBERSHIPS

- Association of Public Policy Analysis and Management (APPAM) 2022—Present
- American Association of Geographers (AAG) 2019—Present

AWARDS AND RECOGNITION

- ASU Individual Graduate and Professional Student Association Travel Award (\$950) 2022
- ASU Group Graduate and Professional Student Association Travel Award (\$950) 2022
- University Graduate Fellowship, Arizona State University (\$5,000) 2019
- John F. Lounsbury Travel Fellowship, Arizona State University (\$1,000) 2019
- Best Undergraduate Thesis, The University of Chicago, (\$150) 2015
- Harris Scholar, Harris School of Public Policy, The University of Chicago (\$40,000) 2014
- University of Chicago Careers in Public and Social Service Scholar 2014
- Albert C. Svoboda Fellowship, The University of Chicago (\$1,500) 2014
- Dean's List, The University of Chicago 2011—2015
- University of Chicago Merit Scholarship Recipient (\$20,000) 2011—2015

TECHNICAL SKILLS

Statistical and Programming Tools: R, Stata, Stan, JAGS, SAS, SUDAAN, CPLEX, python

GIS and Visualization Tools: ArcGIS (Pro and Desktop), MGWR, Tableau, QGIS, GeoDa