Andrew Kampfschulte, MS

Doctoral Candidate in Population, Health & Place

Spatial Sciences Institute · Keck School of Medicine · Department of Sociology

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in Andrew Kampfschulte   🎓 google scholar

Education

2021 – present	**Doctoral Candidate, Population, Health & Place** Spatial Sciences Institute Dornsife College of Letters, Arts & Sciences	University of Southern California
2014–2016	**Master of Biostatistics** Department of Statistics	Grand Valley State University
2010–2013	**Bachelor of Science, Biology** *Minor in Applied Statistics*	Grand Valley State University

Research Positions and Professional Experience

2023 – present

Graduate Student Research Associate — University of Southern California

Children's Hospital Los Angeles, The Saban Research Institute
Los Angeles, CA
Work with Dr. Jonathan Tan on integrating Electronic Health Record data into spatial analyses to better estimate environmental exposure and improve health outcomes.

2018 – 2021

Senior Biostatistician/Epidemiologist — Spectrum Health Hospitals

(now Corewell Health)

Acted as primary statistical support for internal research projects. Consulted & collaborated on grant applications, study design, protocol development, analytical endpoints, and manuscripts with research physicians, scientists, and medical residents. Developed and delivered lectures on basic statistics and study design for research staff. Mentored biostatistics and epidemiology graduate students. Contributed to research projects with external collaborators. Developed and deployed spatio-temporal models for disease outbreak and community health needs assessments.

2016 – 2017

Clinical Biostatistician — Innovative Analytics

Served as primary statistician for phase I and medical device trials, and secondary statistician for phase II & III clinical trials. Developed appropriate tables, listings, and figures for compliance with FDA submissions. Authored and peer-reviewed statistical analysis plans for clinical studies. Vetted study protocols for preparing project bids. Provided ad-hoc consulting for non-clinical research. Validated phase I-III clinical trial results using SAS. Developed power & sample size macros in SAS for clinical trials simulations.

2015

Biostatistics Student Associate — Perrigo Company, PLC

Acted as primary statistical support for senior level scientists analyzing laboratory assay data to evaluate compliance with FDA, USP, and ICH guidelines. Consulted on, outlined, and organized statistical analyses of various data related to laboratory compliance and product formulation. Organized, programmed, and established an electronic data capture system for pilot manufacturing facility using JSL scripting language. Utilized a wide array of statistical techniques to performing innovative analyses on manufacturing, laboratory, and sales data. Communicated complex statistical interpretations in clear, nontechnical terms to wide range of company personnel.

Professional Society Memberships

2022–present	Spatial Statistics Society
2022–present	American Public Health Association
2022–present	American Association of Geographers
2015–present	American Statistical Association

Honors and Awards

2016	Travel Award Grant	GRAND VALLEY STATE UNIVERSITY
2015	Travel Award Grant	GRAND VALLEY STATE UNIVERSITY
2012-2016	Mu Sigma Rho Statistics Honor Society	GRAND VALLEY STATE UNIVERSITY
2011	Dean's List	GRAND VALLEY STATE UNIVERSITY

Certifications

2018	Health Insurance Portability and Accountability Act Certification (HIPAA)
2018	Good Clinical Practice (GCP) for Social and Behavioral Research
2018	Collaborative Institutional Training Initiative (CITI) Social Behavioral Human Subjects
2019	Epic Systems Cogito Certification
2019	Epic Systems Clarity Data Model Certification

Research Interests

1. Spatial Statistics and Public Health
2. Electronic Medical Records and Privacy
3. Environmental drivers of Health Disparities

Funding

Current

June 2023 – present	Graduate Research Assistant

Understanding the role of environment in Pediatric Health: Integrating Spatiotemporal models into clinical care
This study aims to leverage hospital data and traffic networks to understand the role that transportation burden plays in pediatric healthcare. The results of this study can be used to implement better service and follow-up care to families with large transit burdens, and reduce the prevalence of no-show appointments.
Role: Principal Investigator
Total Direct Costs: $43,651

Publications

Peer-reviewed Publications

2024

1. Ennett, Samuel, Megan Burcham, Matt Lypka, **Andrew Kampfschulte**, Akansha Das, Robert Fitzgerald, Brian Boville, Surender Rajasekaran, Teresa Kortz, and Mara Leimanis-Laurens. "*Linguistic Isolation Correlates with Length of Stay for Pediatric Oncology Patients in California.*" Critical Care Medicine 52, no. 1 (2024): S116.

2. Lintvedt, Annika, Chanise Love, **Andrew Kampfschulte**, Surender Rajasekaran, Chana Kraus-Friedberg, and Mara Leimanis-Laurens. "*A Rapid Review of Racial.Ethnic Diversity Among Six US-Based SARS-COV-2 Vaccine Trials.*" Critical Care Medicine 52, no. 1 (2024): S222.

2023

3. **Kampfschulte, Andrew**, and Rebecca K. Miller. *"Regional participation trends for community wildfire preparedness program Firewise USA."* Environmental Research: Climate 2, no. 3 (2023): 035013.

2022

4. McNamara, David A., Stacie VanOosterhout, David Klungle, Denise Busman, Jessica L. Parker, **Andrew Kampfschulte**, Stefan Jovinge, David Wohns, and Ryan D. Madder. *"Pandemic-Associated Delays in Myocardial Infarction Presentation in Predominantly Rural Counties With Low COVID-19 Prevalence."* The American Journal of Cardiology 169 (2022): 18-23.

5. Min, Jiangyong, Grant Young, Abdullah Umar, **Andrew Kampfschulte**, Asad Ahrar, Malgorzata Miller, Nadeem Khan, Nabil Wees, Nagib Chalfoun, and Muhib Khan. *"Neurogenic cardiac outcome in patients after acute ischemic stroke: The brain and heart connection."* Journal of Stroke and Cerebrovascular Diseases 31, no. 12 (2022): 106859.

2021

6. **Kampfschulte, Andrew**, Matthew Oram, Alejandra M. Escobar Vasco, Brittany Essenmacher, Amy Herbig, Aniruddh Behere, Mara L. Leimanis-Laurens, and Surender Rajasekaran. *"Understanding Suicide in Our Community through the Lens of the Pediatric ICU: An Epidemiological Review (2011–2017) of One Midwestern City in the US."* Children 8, no. 2 (2021): 59.

7. Shoemaker, Michael J., **Andrew Kampfschulte**, Sarah Rustmann, and Michael G. Dickinson. *"Dynamic factor analysis of seasonal variation in daily physical activity in individuals with heart failure and implanted cardiac devices."* Heart Lung 50, no. 6 (2021): 754-762.

8. Leimanis-Laurens, Mara, Danny Gil, **Andrew Kampfschulte**, Claire Krohn, Elizabeth Prentice, Dominic Sanfilippo, Jeremy W. Prokop, Todd A. Lydic, and Surender Rajasekaran. *"The feasibility of studying metabolites in PICU multi-organ dysfunction syndrome patients over an 8-day course using an untargeted approach."* Children 8, no. 2 (2021): 151.

2019

9. Kelbel, Theodore, **Andrew Kampfschulte**, and Nicholas Hartog. *"Institution of clinic scheduling guidelines for early introduction of peanut in high risk infants."* Annals of Allergy, Asthma Immunology 123, no. 6 (2019): 602-603.

UNDER REVIEW

IN PREPARATION

Kampfschulte, Andrew, Jonathan Tan. The Geography of Healthcare Access: Transportation Burden and Care Utilization.

Kampfschulte, Andrew. Area Deprivation Indexes: Are They Telling Us What We Think?
Kampfschulte, Andrew. Spatial Autocorrelation, Margins of Error, and the ACS: Getting Population Health Right.

INVITED TALKS AND PRESENTATIONS

1. *Trends in Firewise USA: Grassroots Engagement in a Wildfire Mitigation Program in California* (November 2021) Organization: American Geophysical Union Fall Meeting

2. *Building a Data Science Capability: Lessons Learnt* (October 2021) Organization: Big Data Ignite 2021 Conference Panel Discussion

3. *Changes in Population: Pandemic Evaluation Registry* (February 2021) Organization: Grand Rapids Citywide Research Day

4. *Using JMP as a common Language to Interpret Lab-to-Lab Data: A First-Time User's Perspective* (October 2015) Organization: JMP Users Summit North America

CONFERENCE PRESENTATIONS

Poster Presentations

1. *Assessing Inequalities of Transportation Burden and Time Investment in Pediatric Healthcare Access in Los Angeles, CA* (June 2023) Organization: University of Maryland Time Use Conference

2. *Using JMP to Organise, Manage, and Analyse Team Rosters and Practice Data from Local Swim Teams: An Alternative to Traditional Software* (March. 2016) Organization: JMP International Users Summit

MANUSCRIPT REVIEW

2019 – 2021	Plos One

LEADERSHIP AND SCHOOL SERVICE

2023–Present	Population, Health & Place Student Liason	USC SPATIAL SCIENCES INSTITUTE
2023–Present	Population, Health & Place Student Representative, Dornsife Graduate Students Association	USC DORNSIFE
2022	"Faculty" trip lead, Peaks & Professors	UNIVERSITY OF SOUTHERN CALIFORNIA
2018–2020	Practicum Mentor for Public Health Students	SPECTRUM HEALTH OFFICE OF RESEARCH & EDUCATION
2018–2020	Mentor for Biostatistics Student Interns	SPECTRUM HEALTH OFFICE OF RESEARCH & EDUCATION

TEACHING EXPERIENCE

2017-2020	**Teaching Assistant**	UNIVERSITY OF SOUTHERN CALIFORNIA

SSCI301L: Maps and Spatial Reasoning

Instructed students during laboratory sections on the role of maps and spatial reasoning in the production and use of geographic information. Demonstrated course material in ArcGIS.

SSCI165lgw: Sustainability Science in the City

Instructed students during laboratory sections the influence of sustainability science on public policy and vice versa in the context of social/ethical theories, analytical methods and solutions. Demonstrated course material in ArcGIS.

2017-2020	**Adjunct Faculty**	GRAND VALLEY STATE UNIVERSITY

STA 215: Introductory Applied Statistics
Course Description: A technique-oriented approach to data analysis using statistical techniques. Graphical and numerical summaries of data, multivariable thinking, confidence interval estimation, regression and correlation, testing hypotheses including chi-square tests and one-way analysis of variance.

Taught 1-2 sections per semester. Developed new lecture and lab material using R & Rmarkdown.

Skills

General statistical programming experience: R, SAS, JSL.
Website Development using Jekyll, Quarto, and Rmarkdown; HTML and CSS
Data Management using MSSQL, PostGreSQL, PostGIS
Workflows in Reproducible Research in Rmarkdown & Quarto
Spatial Statistics, Sensitivity Analysis, and Statistical Simulations
Document generation in LaTeX