Andrew Kampfschulte, MS

Doctoral Candidate in Population, Health & Place
Spatial Sciences Institute · Keck School of Medicine · Department of Sociology
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EDUCATION

2021 – present Doctoral Candidate, Population, Health & Place

University of Southern California

Spatial Sciences Institute

Dornsife College of Letters, Arts & Sciences

2014-2016 Master of Biostatistics

GRAND VALLEY STATE UNIVERSITY

Department of Statistics

2010-2013 Bachelor of Science, Biology

GRAND VALLEY STATE UNIVERSITY

Minor in Applied Statistics

RESEARCH POSITIONS AND PROFESSIONAL EXPERIENCE

2023 – present

Graduate Student Research Associate

University of Southern California

Department of Population and Public Health Sciences, Keck School of Medicine

Los Angeles, CA

Trainee of the USC Center for Applied Network Analysis (CANA)

Trainee of the Southern California Center for Young Adult Cancer Survivorship Research (SC-CYACSR)

Advisor: Dr. Thomas Valente

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

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

2018

Graduate Research Assistant

Understanding the role of environment in Pediatric Health: Integrating Spatiotemporal models into clinical care

This study uses friendship data from a cohort of high school students in Southern California to determine the social influence effects of perceived friend norms and friend e-cigarette use on individual e-cigarette use. The results of these analyses can be used to create a framework for a network-based intervention to change normative perceptions and ultimately decrease e-cigarette use among adolescents.

Role: Principal Investigator Total Direct Costs: \$43,651

PUBLICATIONS

Authors who equally contributed to a publication are marked with a †.

PEER-REVIEWED PUBLICATIONS

2023

1. **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

- 2. 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.
- 3. 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

- 4. 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.
- 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.
- 6. 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

7. 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

- 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

- 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
- 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, USC DORNSIFE

Dornsife Graduate Students Association

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 PTFX