

DUNCAN J. MAYER, PhD

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SUMMARY

I am a scientist and statistician with experience designing and leading projects with academic, government, and private sector stakeholders, in research, consulting, and technical assistance across numerous health and social domains. I excel at research dissemination and have communicated results and recommendations to audiences with a range of technical sophistication. You can find my full academic CV [here](#).

PROGRAMMING: R (8 years) | SQL (4 years) | Stan (3 years)

STATISTICS: Hierarchical Models | Spatial Statistics | Longitudinal Data Analysis | Machine Learning | Experimentation

RECENT PROFESSIONAL EXPERIENCE

[BeVera Solutions](#)

Health Statistician (full-time)

Atlanta, GA

Sept. 2022 – Present

In a client facing role as a statistician at a data science consulting firm I contributed to project proposals, provided ongoing statistical support, and led and managed the methodological development of studies addressing internal questions for the Centers for Disease Control and Prevention. I worked with a large administrative database of demographic and vaccination information (all US federal, jurisdictional, and pharmacy records) to monitor and evaluate public health programs. I built a probabilistic matching algorithm to improve data quality and reduce duplication. I constructed and validated datasets, wrote SQL queries and merged administrative and public data, and led studies of health equity within federal agencies using modern computational methods.

[Case Western Reserve University](#)

Research Fellow (full-time)

Cleveland, OH

Aug. 2018 – June. 2022

As a research fellow with the [Center on Poverty and Community Development](#) I developed a research portfolio focused on novel quantitative methodologies, program evaluation, and empirical studies of the distribution of community resources using modern computational methods. I built a novel hierarchical model for small area estimation which reduces bias by incorporating uncertainty in sampling and validated the model through simulation. I quantified the relationship between location, agglomeration, and organizational performance using generalized additive models with point-reference data. I geocoded and merged 10 years of data from disparate sources (APIs, administrative records, web scraping), and estimated hierarchical models which account for spatial and non-spatial heterogeneity to study juvenile delinquency, child maltreatment, and infant mortality. I disseminated these results in academic journals and presentations resulting in 9 lead author publications. Finally, I taught bachelors and master's level courses in research and community practice, and developed a programming course for the [data science for social impact](#)

[The Institute at Wilkes University](#)

Research Analyst (full-time)

Wilkes-Barre, PA

July 2017 – June 2018

As a research analyst at a community based research organization I co-authored and led data analysis for funded empirical research projects including an analysis of the region's workforce trends using model-based projections of workforce needs, an impact evaluation of apprenticeship and early education programs using administrative data, and out-migration of college graduates using survey data. I ran focus groups as part of needs assessments for the United Way and the Area Agency on Aging. I regularly provided consultation and technical assistance to health and human service oriented nonprofits and foundations, including evaluation capacity building by developing implementation and monitoring plans.

EDUCATION

[Case Western Reserve University](#)

PhD in Social Welfare

Cleveland, OH

August 2023

[Marywood University](#)

Masters of Social Work

Bachelors of Social Work

Scranton, PA

May 2017

May 2015