

DUNCAN J. MAYER

DATA SCIENTIST | SOCIAL SCIENTIST

11235 Bellflower Rd, Cleveland, Ohio, 44106

609.571.5739 · DuncanMayer77@gmail.com

[Personal Website](#) · [Github](#) · [LinkedIn](#) · [ORCID](#)

EDUCATION

Case Western Reserve University

PhD in Social Welfare

Dissertation: Essays on Community-Organization Dynamics

Cleveland, OH
(Expected Spring) 2023

Marywood University

Masters of Social Work

Thesis: Evaluation Capacity; Structures, Stakeholders, Attitudes, and Environment

Scranton, PA
2017

Bachelors of Social Work

2015

RESEARCH INTERESTS

Substantive Domains: Data Use, Program Evaluation, Neighborhoods, Organizational Ecology, and Community-Organization Dynamics

Methodological: Hierarchical models (rich parameterizations), Model Criticism, Measurement Error, Nonlinearity, and Spatial Statistics

Programming: R (8 years) | SQL (4 years) | Stan (3 years) | Python (1 year)

RECENT PROFESSIONAL EXPERIENCE

BeVera Solutions

Health Statistician (full-time)

Atlanta, GA
Sept. 2022 – Present

- Led statistical development of several white papers related to the COVID19 vaccine program for the Centers for Disease Control and Prevention's [National Center for Infectious and Respiratory Disease](#), evaluating efficacy of the vaccine program and indicators of health equity.

Case Western Reserve University

Research fellow (full-time)

Cleveland, OH
Aug. 2018 – June. 2022

- Developed and led all aspects of several studies resulting in multiple publications and presentations.
- Provided ad hoc methodological support and consultation for select research reports and evaluation including formative and process evaluation, affiliated with the [The Center on Poverty and Community Development](#).
- Delivered over 150 hours of course lectures to graduate and undergraduate students and developed a programming course for the [data science for social good](#) certificate.

The Institute for Public Policy and Economic Development

Research Analyst (full-time)

Wilkes-Barre, PA
July 2017 – June 2018

- Co-authored 11 funded research papers on topics related to public policy, public health, and economic development, leading data analysis in 5.
- Provided ad hoc data analysis to a variety of public and private stakeholders.
- Contributed to the design of evaluation and monitoring plans for program implementation.
- Ran focus groups and conducted qualitative analysis (thematic coding).

Marywood University

Research Assistant (part-time)

Scranton, PA
March 2017 – July 2017

- Provided methodological support for studies of childcare centers across Northeast Pennsylvania, responsibilities included data management, analysis, and writing.

SELECT HONORS

Case Western Reserve University Social Justice Institute Research Fellow	2022-2023
Association for Research on Nonprofit Organizations and Voluntary Action Doctoral (ARNOVA) Fellow	2022
Jack, Joseph and Morton Mandel School of Applied Social Sciences Research Fellow	2018-2022

PUBLICATIONS

Articles in Referred Journals

Mayer, D. J. (accepted). Understanding Location and Density; A Spatial Analysis of Cuyahoga County Ohio's Nonprofit Sector. *Nonprofit and Voluntary Sector Quarterly*.

Mayer, D. J., Fischer, R. L. (accepted). Exploring Niche Alteration in Nonprofit Organizations. *Administration and Society*.

Mayer, D. J. (2023). Social Capital and the Nonprofit Infrastructure; an Ecological Study of Child Maltreatment. *Journal of Community Psychology*. DOI: [10.1002/jcop.22984](https://doi.org/10.1002/jcop.22984)

Mayer, D. J. Groza, V. (in press). Promoting Children's Rights in Program Evaluation. *American Journal of Evaluation*.

Mayer, D. J. (2023). Understanding Social Disorganization and the Nonprofit Infrastructure; An Ecological Study of Child Maltreatment Rates. *Social Currents*. DOI: [10.1177/23294965231159317](https://doi.org/10.1177/23294965231159317)

Mayer, D. J. Fischer, R. L. (2023). Exploring data use in nonprofit organizations. *Evaluation and Program Planning*. DOI: [10.1016/j.evalprogplan.2022.102197](https://doi.org/10.1016/j.evalprogplan.2022.102197)

Mayer, D. J. (2022). Simmer Down Now! A Study of Revenue Volatility and Dissolution in Nonprofit Organizations. *Nonprofit and Voluntary Sector Quarterly*. DOI: [10.1177/08997640221126147](https://doi.org/10.1177/08997640221126147)

Mayer, D. J. (2022). Fischer, R. L. (2022). Can a Measurement Error Perspective Improve Estimation in Neighborhood Effects Research? A Hierarchical Bayesian Methodology. *Social Science Quarterly*. DOI: [10.1111/ssqu.13190](https://doi.org/10.1111/ssqu.13190)

Manuscripts Under Review

Mayer, D. J. (revise and resubmit). Revisiting Portfolio Composition and Volatility: Short- and Long-Term Perspectives. *Public Budgeting and Finance*.

Mayer, D. J., Fischer, R. L. (revise and resubmit). Teaching Spatial Data Analysis; A Case Study with Recommendations. *Nonprofit Policy Forum*.

Mayer, D. J. (under review) Let's Try That Again: Improving the Teaching of Statistical Inference Through the Bootstrap. *Journal of Teaching Social Work*.

Mayer, D. J. (under review) Exploring Variation in the Relationship Between Deprivation and the Density of Human Service Nonprofits. *Administration and Society*.

Mayer, D. J. (under review) A Note on Empirical Models for Nonprofit Density and Vital Events. *Nonprofit and Voluntary Sector Quarterly*.

Manuscripts In Preparation

Mayer, D. J. Can Specialization Protect Against Competitive Effects? A Study of Contributions in US Nonprofits. Target Outlet: *Public Administration*.

Mayer, D. J. A Note on the Contiguity Matrix in ICAR Prior Models. Target Outlet: *Social Science Quarterly*.

Dissertation Papers

Mayer, D. J. The Nonprofit Response to Neighborhood Conditions: Incorporating Space-Time Heterogeneity.

Mayer, D. J. Revealed Preference for Nonprofit Organizations; A Hedonic Price Analysis.

Mayer, D. J. Connecting Founding and Dissolution; A Demographic Study of The US Nonprofit Sector.

Book Chapters and Reviews

Fischer, R. L., **Mayer, D. J.** (2022) Nonprofit Management: Beyond Managerialism. In W. Brown, M. Hale (eds). *Preparing Nonprofit Leaders: Contemporary Perspectives*. Routledge.

Fischer, R. L., **Mayer, D. J.** (2020). Macro Social Work Practice: Working for Change in a Multicultural Society. *Journal of Teaching in Social Work*. DOI: [10.1080/08841233.2020.1809257](https://doi.org/10.1080/08841233.2020.1809257)

Professional or Technical Reports

Fischer, R., Mansoor, D., **Mayer, D. J.** (2020). A Study of the Educational Needs of Fundraising and Grant Making Professionals in Northeast Ohio.

Atwell, M., Fischer, R., L., Chan, T, **Mayer, D. J.**, Henderson, M. (2019). Year Two Gap Analysis: Accountable Health Communities. The Center on Poverty and Community Development.

Ooms, T., Chew, A., **Mayer, D. J.** (2018). Senior Needs Assessment: 2018. Wilkes-Barre, PA: The Institute for Public Policy and Economic Development.

Ooms, T., Chew, A., **Mayer, D. J.**, Ritter, C. (2018). Berwick Community Needs Assessment. Wilkes-Barre, PA: The Institute for Public Policy and Economic Development.

Ooms, T., Chew, A., McCormick, E., **Mayer, D. J.** (2018). The Intersection of Transit and Land Use. Wilkes-Barre, PA: The Institute for Public Policy and Economic Development.

Ooms, T., Chew, A., **Mayer, D. J.**, McCormick, E. (2018). Social Determinants of Health. Wilkes-Barre, PA: The Institute for Public Policy and Economic Development.

Ooms, T., Chew, A., **Mayer, D. J.**, McCormick, E. (2018). Health Literacy: A Public Health Challenge. Wilkes-Barre, PA: The Institute for Public Policy and Economic Development.

Ooms, T., Chew, A., **Mayer, D. J.**, McCormick, E. (2018). What's Next? A Technical Report on 2018 Post-Graduation Polls. Wilkes-Barre, PA: The Institute for Public Policy and Economic Development.

Ooms, T., Chew, A., **Mayer, D. J.**, McCormick, E. (2018). The Nonprofit Social Service Sector in Luzerne and Lackawanna Counties. Wilkes-Barre, PA: The Institute for Public Policy and Economic Development.

Ooms, T., Chew, A., McCormick, E., **Mayer, D. J.** (2018). Workforce Trends and Challenges in Northeastern Pennsylvania. Wilkes-Barre, PA: The Institute for Public Policy and Economic Development.

Ooms, T., Chew, A., McCormick, E., **Mayer, D. J.** (2018). The Behavioral Health Initiative: A Report on the Behavioral Health Workforce. Wilkes-Barre, PA: The Institute for Public Policy and Economic Development.

Ooms, T., Chew, A., McCormick, E., **Mayer, D. J.** (2017). Public Policy and Civic Engagement: A Technical Report on 2017 Polls. Wilkes-Barre, PA: The Institute for Public Policy and Economic Development.

Mayer, D. J. (2017). Preschool and Dibels Assessments. Scranton, PA: United Way of Lackawanna and Wayne Counties.

MEDIA

"Duncan Mayer writes about revenue volatility", featured in [Case Western Reserve University's "the Daily."](#) December 2nd, 2022.

PRESENTATIONS

Presentations at National Conferences

Mayer, D. J. (2022, accepted but not presented). Understanding Social Disorganization and the Nonprofit Infrastructure; An Ecological Study of Child Maltreatment Rates. The Society for Social Work Research. Juried poster presentation.

Mayer, D. J. (2022). Revealed Preference for Nonprofit Organizations; A Hedonic Price Analysis. Annual Conference of the Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA). Juried paper presentation.

Mayer, D. J. (2022). Nonprofit Response to Neighborhood Conditions: Incorporating Space-Time Heterogeneity. Annual Conference of the Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA). Juried paper presentation.

Mayer, D. J. Fischer, R. L. (2021). Examining Revenue Volatility in Nonprofit Organizations with a Discussion of Measurement and Portfolio Representation. Annual Conference of the Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA). Juried paper presentation.

Presentations at Local Conferences

Mayer, D. J. (2022). Understanding the Geography of Cuyahoga County's Nonprofit Sector Through Form-990 Data. Data Days Cleveland. Juried oral presentation.

Mayer, D. J. (2017). Evaluation Capacity: Structures, Stakeholders, Attitudes, and Environment. Annual Conference of the National Association of Social Workers, Pennsylvania. Juried poster presentation.

TEACHING (AND RELATED) EXPERIENCE

Instructor of Record

Case Western Reserve University

Evidence-informed practice (SASS 528)

Masters of Social Work: 2021 (in-person), 2022 (online)

Theoretical contexts shaping community practice (SASS 534)

Masters of Social Work: 2021 (online), 2022 (in-person)

Poverty, wealth building, and social entrepreneurship (SASS 367)

Social Work Minor: 2020 (online)

Course Development

Case Western Reserve University

Working with data for organizational empowerment (SASS 500)

Masters of Social Work, Certificate in Data Sciences for Social Impact, Approved 2021

Community practice policy: Analyzing and changing social policy (SASS 561)

Masters of Social Work, 2020 (online)

Teaching Assistant

Case Western Reserve University

Data-based decision making (SASS 410)

Masters of Nonprofit Organizations, 2020 (online)

Theoretical contexts shaping community practice (SASS 534)

Masters of Social Work, 2019-2021 (online/in-person)

Community practice policy: Analyzing and changing social policy (SASS 561)

Masters of Social Work, 2019-2021 (online/in-person)

Marywood University

Social work research: Implementation and analysis (SW 702)

Masters of Social Work, 2017 (in-person)

SERVICE

PhD executive committee

2017-2019

Community practice committee on curriculum

2019

Ad hoc Reviewer

Nonprofit Management and Leadership

PROFESSIONAL AFFILIATIONS

Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA)

2021-present

Academic Honor Societies

Sigma Zeta (Phi Alpha)

Inducted 2017

Alpha Delta Mu

Inducted 2015

Delta Epsilon Sigma

Inducted 2015

INTERSHIPS

The United Way of Lackawanna and Wayne Counties (Scranton, PA)

2016-2017 (440 hours)

- Developed data briefs for task forces focused on education and health programs.

The Institute for Public Policy and Economic Development (Wilkes-Barre, PA)

2016 (250 hours)

- Analyzed survey data related to the child welfare workforce.
- Developed a literature review related to the effects of truancy.

United Neighborhoods Center of Northeast PA 2015 (450 hours)
(Scranton, PA)

- Provided case management for a range of clients facing chronic health problem and utility shut offs.

Prevention Point Philadelphia (Philadelphia, PA) 2015 (500 hours)

- Provided case management to clients in a medication assisted treatment program focused on substance use.
- Distributed syringes and wound kits as part of the agency's mobile clinic and syringe exchange.

Community Intervention Center (Scranton PA) 2014 (30 hours)

- Developed a drawing group for the clients in the agency's drop-in center.

References Available Upon Request