

# Duncan J Mayer

Statistician and PhD Candidate

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## Education

Case Western Reserve University (Cleveland, OH)

Jack, Joseph and Morton Mandel School of Applied Social Sciences

Expected 2023

PhD Candidate in Social Welfare

Dissertation: *Essays on Community-Organization Dynamics*

Marywood University, MSW (Dunmore, PA)

2017

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

Marywood University, BSW (Dunmore, PA)

2015

## Research interests

Nonprofit studies: data use, program evaluation, neighborhoods, community-organization dynamics.

Methodological: hierarchical models (rich parameterizations), model criticism, measurement error, nonlinearity, and spatial statistics.

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

## Select Honors

Mandel School of Applied Social Sciences Research Fellow

2018-2022

Social Justice Institute Research Fellow

2022

Association for Research on Nonprofit Organizations and Voluntary Action Doctoral Fellow 2022

## Publications

### ARTICLES IN REFEREED JOURNALS

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

**Mayer, D. J.,** Fischer, R. L. (in press) Exploring Data Use in Nonprofit Organizations. *Evaluation and Program Planning*. <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*. <https://doi.org/10.1177/08997640221126147>

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

#### MANUSCRIPTS UNDER REVIEW

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

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

**Mayer, D. J.** (revise and resubmit) Social Capital and the Nonprofit Infrastructure; an Ecological Study of Child Maltreatment. *Journal of Community Psychology*.

**Mayer, D. J.** (revise and resubmit) Understanding Social Disorganization and the Nonprofit Infrastructure; An Ecological Study of Child Maltreatment Rates. *Social Currents*.

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

**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). How Should Nonprofit Density and Vital Events be Modeled? Discussion and Applications. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*.

**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.**, Fischer, R. L. (under review). Teaching Spatial Data Analysis; A Case Study with Recommendations. *Nonprofit Policy Forum*.

#### MANUSCRIPTS IN PREPARATION

Information Processing in Nonprofit Organizations. Target outlet: *Nonprofit Management and Leadership*.

What do Evaluators Need to Know about Interactions? Target Outlet: *American Journal of Evaluation*.

#### DISSERTATION PAPERS

The Nonprofit Response to Neighborhood Conditions: Incorporating Space-Time Heterogeneity Revealed Preference for Nonprofit Organizations, A Hedonic Price Analysis

Connecting Vital Events; 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*. <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 & 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.** (2017). 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.

## **National Presentations**

**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.

### Local Presentations

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

### Employment

BEVERA SOLUTIONS (ATLANTA, GA)

*Statistician* 2022-present

Statistical lead for 3 white papers for the [NCIRD](#)  
Automated reporting of data quality for principal stakeholders

CASE WESTERN RESERVE UNIVERSITY (CLEVELAND, OH)

Data Scientist 2018-2022

Statistical lead (data collection and modeling) for multiple projects

Published [multiple first author papers](#) including novel methodologies and state of the art applications

Communicated methods and insights in over 5 technical talks at scientific conferences and over 150 hours of course lectures

Co-authored 3 funded research papers paring survey and administrative data

Developed programming courses for the [data science for social good](#) certificate

THE INSTITUTE FOR PUBLIC POLICY AND ECONOMIC DEVELOPMENT (WILKES-BARRE, PA)

*Research Analyst* 2017-2018

Co-authored 11 funded research papers

Delivered results to local stakeholders through presentations

*Independent Contractor* (Scranton, PA)

Program Evaluator 2017

Evaluated early education programs.

Created primers and briefs for stakeholder groups.

*Marywood University* (Scranton, PA)

Research Assistant 2017

Assisted in studies of childcare centers across Northeast Pennsylvania, responsibilities included data management, analysis, writing.

## Teaching (and related) experience

### INSTRUCTOR OF RECORD

*Case Western Reserve University*

Master of Social Work

SASS 528; Evidence-informed practice (Master of Social Work) 2021 (in-person), 2022 (online)

SASS 534; Theoretical contexts shaping community practice (Master of Social Work) 2021 (online), 2022 (in-person)

SASS 367; Poverty, wealth building, and social entrepreneurship (Social Work Minor) 2020 (online)

### COURSE DEVELOPMENT

*Case Western Reserve University*

SASS 500; Working with data for organizational empowerment (Master of Social Work, Certificate in Data Sciences for Social Impact) Approved 2021

SASS 561; Community practice policy: Analyzing and changing social policy (Online, Master of Social Work) Approved 2020

### TEACHING ASSISTANT

*Case Western Reserve University*

SASS 410; Data-based decision making (Master of Nonprofit Organizations) 2020

SASS 534; Theoretical contexts shaping community practice (Master of Social Work) 2019-2021

SASS 561; Community practice policy: Analyzing and changing social policy (Master of Social Work) 2019-2021

*Marywood University*

SW 702 Social work research: Implementation and analysis (Master of Social Work) 2017

## Service

*Case Western Reserve University*

PhD executive committee 2017-2019

Community practice committee on curriculum 2019

## Professional Affiliations

Association for Research on Nonprofit Organizations and Voluntary Action 2021-present

**Academic Honor Societies**

Sigma Zeta (Phi Alpha)	2017
Alpha Delta Mu	2015
Delta Epsilon Sigma	2015

**Internships**

The United Way of Lackawanna and Wayne Counties (Scranton, PA) 440 hours	2016-2017
The Institute for Public Policy and Economic Development (Wilkes-Barre, PA) 250 hours	2016
United Neighborhoods Center of Northeast PA (Scranton, PA) 450 hours	2015
Prevention Point Philadelphia (Philadelphia, PA) 500 hours	2015
Community Intervention Center (Scranton, PA) 30 hours	2014

**References Available Upon Request**