501 S Midvale Apt 130 Madison, WI 53711

(952)220-8837 / mather2@wisc.edu Portfolio: https://ryanmather.github.io/ RYAN MATHER

#### **SUMMARY**

I am a PhD candidate in Economics planning to graduate this spring or early summer. My experience in data collection and analysis includes almost three years in my PhD program focused on preparing research, just under two years as a Research Associate with the Federal Reserve Bank of St. Louis, and experiences like interning with the Rosebud Economic Development Corporation. In trouble shooting the many challenges that came up in these roles, I gained a strong ability to apply data manipulation, statistical methods, and project management skills in fast paced settings with coding languages and software such as Julia, Stata, R, Python, SQL, Matlab, Excel, and Mathematica. My abilities in communicating technical concepts have been demonstrated through teaching, academic papers, and posts for the public. I am excited to contribute my analytical abilities toward driving positive change in the real world.

#### **EDUCATION**

University of Wisconsin, Madison

Aug 2020-Spring/Summer 2025 (Anticipated)

PhD in Economics, (Expected Spring/Summer 2025, Major field: Labor)

MS in Economics, (Fall 2022)

University of Minnesota, Twin Cities

BS Economics (Summa Cum Laude, Minor in Spanish)

• BA Mathematics (Magna Cum Laude)

Fall 2014-Spring 2018

**Current GPA**: 3.978/4

**GPA:** 3.93/4

## **EXPERIENCE**

Teaching Assistant, University of Wisconsin Madison

Aug 2020-May 2022, Aug 2023-May 2025

- Courses: Statistics: Measurement in Economics (Econ 310, 4 semesters), Principles of Microeconomics (Econ 101, 2 semesters, 1 summer course), Mathematical Economics I (Econ 703, 1 semester)
- Communicated technical information at levels ranging from entry-level undergraduate to PhD student
- Simultaneously managed multiple discussion sections of students in their progress through the course

Research Assistant, University of Wisconsin Madison

Aug 2022-May 2023

- Cleaned and analyzed NLS survey data to investigate the connection between health shocks and cognitive skill
- Used latent variable analysis to fix the problem that proper measures of cognitive skill and health/frailty were unavailable in the data
- Prepared weekly reports from data detailing progress in the project

Research Associate, Federal Reserve Bank of St. Louis (St. Louis, MO)

Jun 2018–May 2020

- Gathered, analyzed, and graphed empirical and simulated data with a high degree of independence
- Co-authored data-driven and public-facing reports, some of which are shared below under "Federal Reserve Bank Publications"
- Used large datasets like the FRBNY Consumer Credit Panel/Equifax (accessed using SQL) and Y-14 data

Intern II – Supervisory Policy and Risk Analysis, Federal Reserve Bank of St. Louis (St. Louis, MO)

May–Aug 2017

• Prepared data and used regression analysis to assess the relevance of state deposit caps on bank mergers.

#### **COMPUTER SKILLS**

Languages: R, Julia, Stata, Python, Matlab, SQL, Mathematica, LaTeX

Software: SLURM, Citrix Workspace, and Microsoft office including Excel, Word and PowerPoint

Analytical Methods: I am constantly learning new methods to solve research problems. Here are some examples:

- Causal Inference and Predictive Modelling: Dynamic discrete choice decision modelling, Instrumental variable regression, propensity score matching, regression discontinuity, latent variable analysis
- Machine Learning: LASSO, kmeans, random forest
- Mathematical Optimization: Numerical quadrature, numerically solving systems of equations and minimization problems with methods that use a gradient/jacobian, parallel computing

Large Datasets: Much of my research experience has leveraged large datasets like the FRBNY Consumer Credit Panel/Equifax, Y-14 data, NLS survey data, and data from the Texas Schools Project.

#### RESEARCH

**Publications** 

 "The Effects of Macroeconomic Shocks: Household Financial Distress Matters" with Kartik Athreya, José Mustre-Del Río, and Juan M. Sánchez. The Review of Financial Studies, Vol 38, Issue 2, February 2025

## Working Papers:

- Job Market Paper: "Home Town Labor Markets and Degree Choice" with Andrew Smith
- "Top Percent Plans and Student Beliefs about STEM Ability"
- "Student Transferring and Outcomes under the Texas Public Education Grant" with Andrew Smith

## Selected Presentations

Presented "Hometown Labor Markets and Degree Choice" in the Joseph L. Krislov Labor Workshop
 Carroll Round at Georgetown University, Presented "Determinants of Diversification"
 Instituto de Altos Estudios Nacionales (IAEN) in Ecuador, Presented "Los determinantes de diversificación: Un estudio de las exportaciones ecuatorianos"

# Selected Co-authored Federal Reserve Bank Publications

- Regional Economist: <u>The Unequal Recovery: Measuring Financial Distress by ZIP Code</u>, <u>Debt Levels Continue to Grow in Eighth District's Key Metro Areas</u>, <u>Measuring Levels of Debt in the Eighth District's Key Metro Areas</u>, <u>Debt Developments in the Eighth District during First Half of 2019</u>
- On the Economy Blog: <u>COVID-19</u> and <u>Financial Distress</u>: <u>Employment Vulnerability</u>, <u>Do Millennials Pay Their Debts</u>
  <u>Back?</u>, <u>How Persistent Is Financial Distress?</u>, <u>Predicting Recessions</u>: <u>Which Signals Are More Accurate?</u>, <u>Job and Wage</u>
  Growth Since the Great Recession

## Selected Citations of Work

National Academies of Sciences, Engineering, and Medicine 2019. "Other Policy and Program Approaches to Child Poverty Reduction." A Roadmap to Reducing Child Poverty. Washington, DC: The National Academies Press.

Cited "Temporary Assistance with Lasting Effects: A Report on Policies of Self-Determination in Native America."
 (2017)

Ritholtz, Barry. "The Economy is Booming. So is Financial Stress." Bloomberg. 30 May 2019

Cited "The Unequal Recovery: Measuring Financial Distress by ZIP Code" (2019) with Juan M. Sánchez

Cohen, Patricia. "Straggling in a Good Economy, and Now Struggling in a Crisis." The New York Times, 16 Apr. 2020

• Cited "Covid-19 and Households' Financial Distress Part 1: Employment Vulnerability and (Financial) Pre-Existing Conditions." (2020) with Kartik Athreya, José Mustre-Del Río, and Juan M. Sánchez

#### **UNPAID WORK**

Volunteer, El Bancodesarrollo (Quito, Ecuador)

Mar-May 2017

• Designed and taught a short employee training course in Spanish on Excel

Intern, The Rosebud Economic Development Corporation (REDCO) (Mission, SD)

Jun-Aug 2016

- Assisted in REDCO's work for the Rosebud Native American Reservation
- Example tasks: conducting a phone survey on payday loan use, working on the website, and preparing a cash flow projection for a potential program called the Tribal Credit Co-op

## **FUNDING AND AWARDS**

•	Juli Plant Grainger Teaching Excellence Scholarship	Fall 2024
•	Juli Plant Grainger Summer Research Scholarship with Andrew Smith	2022 and 2023
•	Second place senior thesis, Minnesota Economic Association Student Paper Contest	2017
•	Second place term paper, Minnesota Economic Association Student Paper Contest	2017
•	I-UROP Funding, University of Minnesota Twin Cities	2017
•	UROP Funding, University of Minnesota Twin Cities	2016

## REFERENCES

Chris Taber (Chair of my PhD Committee):ctaber@ssc.wisc.eduPhone: 608-263-7791Jesse Gregory (Professor on my PhD Committee):rgeorge2@wisc.eduPhone: 608-890-4913Chao Fu (Professor on my PhD Committee):becca.george@wisc.eduPhone: 608-263-3886Gregory Pac (Teaching Reference):rgeorge@ssc.wisc.eduPhone: 608-263-2287