MAGDALENA BENNETT

Last updated: November 2023

Summary

I specialize in **analyzing complex data** to reveal **key insights** and **compelling narratives** for decision-making. My expertise extends to the development and enhancement of **statistical methods for causal inference**, with empirical applications in evidence-based policy, especially in education.

Contact information

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💼 ACADEMIC POSITIONS

Assistant Professor
Present — 2020
IROM Department, McCombs School of Business, the University of Texas at Austin

Research Affiliate
Present — 2022
Learning Collider

Research Affiliate
Present — 2022
Population Research Center at The University of Texas at Austin

🎓 EDUCATION

PhD., Economics and Education
2020 — 2015
Teachers College, Columbia University, New York, NY

MSc. Social Policy (Research)
2014 — 2013
London School of Economics, *Merit Distinction*, London UK

MSc. Engineering Science (Applied Microeconomics)
2012 — 2010
P. Universidad Catolica, *Maximum Distinction*, Santiago, Chile

BS. Industrial Engineering
2010 — 2005
P. Universidad Catolica, *Maximum Distinction*, Santiago, Chile

★ SELECTED AWARDS, HONORS, AND GRANTS

Research Excellence Grant ($12,900)
2023
The University of Texas at Austin

· Bennett, M. "Changes in School Attendance Zones over Time: The Effect of Segregation on Zoned-In and Zoned-out Areas"

2022 **Research Excellence Grant ($20,000)**

The University of Texas at Austin & Herb Kelleher Entrepreneurship Center

· Bennett, M., Fuchs, W., and Millan, J. "Determinants of Success in the Context of Microcredits"

2019 **Distinguished Student Paper Award**

ENAR International Biometrics Society

· Bennett, M., Vielma, J., and Zubizarreta, J., "Building Representative Matched Samples with Multi-valued Treatments" (2019)

2018 **Post-Primary Education Initiative Grant ($45,000)**

Poverty Action Lab (J-PAL)

· Allende, C. and Bennett, M., "Biased Beliefs and the Dynamic Role of Information in College Choice"

📖 PUBLICATIONS

2022 **Cancer History is Associated with Slower Speed of Cognitive Decline in Patients with Amnestic Cognitive Impairment**

Journal of Alzheimer's Disease. Co-authored with M. I. Behrens, R. Castillo, D. Ponce, N. Rogers, & R. Vergara.

· In this study, we analyze data from multiple patients with early cognitive impairment (ECI), finding that cancer is associated with a milder progression of the neurodegenerative desease. These differences are large and not necessarily explained by other factors, as shown in a sensitivity analysis.

2021 **All Things Equal? Heterogeneity in Policy Effectiveness against COVID-19 Spread in Chile**

World Development. Vol 137. 105208

· This study uses merges multiple sources of publicly available data to analyze the effectiveness of lockdowns in Chile, including testing rates, contagion numbers, and mobility measures. I find that even though lockdowns helped slow the spread of COVID-19, there is a significant heterogeneity in the effectiveness associated to socioeconomic characteristics: While richer neighborhoods were more likely to comply with the measure, less affluent counties experience less compliance and lower rates of effectiveness because of this.

2021 **Better Together? Social Networks in Truancy and the Targeting of Treatment**

Journal of Labor Economics. Vol 39 (1). Co-authored with Peter Bergman.

· This study revisits an existing field experiment where parents were provided information through text messages about their child's attendance. By considering potential spillovers for this intervention, we use administrative data to unveil the social network structure between students and find that close friends from treated individuals also experience a positive effect on attendance, nearly 50% of the direct effect.

2020 **Building Representative Matched Samples with Multi-valued Treatments in Large Observational Studies**

Journal of Computational and Graphical Statistics. Vol 29 (4) pp 744-757. Co-authored with J. Vielma and J. Zubizarreta.

· Methodological paper that extends traditinal matching methods by (i) allowing to match to a specific population of interest, (ii) use traditional pair-wise matching methods to extend to multiple groups beyond two, and (iii) improves solving time for these tasks for integer programming problems, being comparable in computational intensity to propensity score matching.

2018 Design and Implementation of an Alternative Admission Program to Engineering: Talent and Inclusion

Studies of Higher Education (CSHE), 43(8) p.1454-1467. Co-authored with I. Hiliger, C. Gelmi, L. Cifuentes, and J. de la Llera.

· Report that analyzes the implementation and results of an alternative admission system in Engineering at a specific university, allowing students with lower scores but with other desirable characteristics (high school ranking) to be admitted to one of the most selective programs in Chile. Results show that even though these students struggle in a few courses during their first semester, they compensate in other less-content-intensive courses, and quickly catch up and even surpass traditionally-admitted students during their second term.

2013 Incentives for studying teaching: The case of the vocational scholarship

Estudios Publicos N 131, Centro de Estudios Publicos. Co-authored with F. Claro, R. Paredes, and T. Wilson.

· Analysis of the introduction of the "Vocational Scholarship" for high-performing students that are admitted into a pedagogy program. We find that this scholarship improves the pool of pedagogy students in terms of admission scores and high school performance, and that these differences cannot be solely attributed to an increase in socioeconomic status.

WORKING PAPERS AND ON-GOING RESEARCH

2023 Tracking on the Field: Racial Diversity and Disparity in Football Quarterbacking

Ongoing project

· Using multiple sources of scraped data, this study analyzes segregation in the QB position through transitions from high school to college, and from college to the NFL. Preliminary analysis finds that Black QBs are 15 percentage points less likely to be recruited as QBs for college compared to white QBs, controlling for performance and play style, and are more likely to be tracked to other positions. These differences are sustained through the college-NFL transition, where the difference is 10 percentage points.

2023 Biased Beliefs and the Dynamic Role of Information in College Choice

Randomized Controlled Trial in Chile. Project with Claudia Allende.

· Field experiment done with the collaboration of the Chilean Ministry of Education to understand the differential impact of providing information at different points in time, allowing people to dynamically change their inputs to affect their potential choice set. In this setting, we test this hypothesis for students studying for the college admission test in Chile.

2023 Beyond Exclusion: The Role of the Causal Effect of Testing on Attendance on the Day of the Test

Working Paper. Co-authored with C. Neilson and N. Rojas.

· In this study, we combine large datasets from different administrative sources to analyze the effect of standardized testing on attendance. Using a rich panel of daily attendance for all students in Chile that attend a subsidized or public school, (i) we show how attendance is differentially affected depending on the academic performance of the student, and (ii) use the large amount of data to identify schools that are most likely gaming the system by (des)incentivizing students to show up the day of the test.

2023 Determinants of Success in the Context of Microcredits

Ongoing observational study and field experiment. Project with William Fuchs and Jaime Milln.

· In this two-part study we collect rich information about vulnerable micro-entrepreneurs in 4 different countries in Latin America through in-person surveys. We then use the data to unveil potential interventions that could help entrepreneurs be successful, and on the second stage of this project, we are designing a field experiment to estimate the effect of such interventions.

2023 Difference-in-Differences using Mixed-Integer Programming Matching

Working Paper

· Methodological paper that uses matching as an adjustment method to improve on traditional DD methods and bound potential effects when the parallel trend assumptions does not hold for the entire sample.

2022 ● **How Far is Too Far? Generalization of a Regression Discontinuity Design Away from the Cutoff**

Job Market Paper

· Methodological paper that extends traditional regression discontinuity designs to estimate effects away from the cutoff of eligibility. The empirical application uses the introduction of free higher education in Chile, finding that students with lower income (compared to the cutoff) experience greater gains in terms of selection and enrollment into college.

📊 SELECTED PRESENTATIONS

2023 ● **Beyond Exclusion: The Role of the Causal Effect of Testing on Attendance on the Day of the Test**

Wokshop on Economics of Education. Universidad de Los Andes, Valle Nevado, Chile.

2023 ● **Changes in School Attendance Zones over Time: The Effect of Segregation on Zoned-In and Zoned-out Areas**

AEFP Annual Conference. Denver, CO.

2022 ● **A Differences-in-Differences Approach using Integer Programming Matching**

Universidad Diego Portales. Santiago, Chile.

2022 ● **Beyond Exclusion: The Role of the Causal Effect of Testing on Attendance on the Day of the Test**

Microsoft Research Seminar. *Online. (Invited talk)*

2022 ● **Beyond Exclusion: The Role of the Causal Effect of Testing on Attendance on the Day of the Test**

American Causal Inference Conference (ACIC). UC Berkeley. Berkeley, CA. *Poster Presentation*

2021 ● **A Differences-in-Differences Approach using Integer Programming Matching**

SREE Conference. *Online*

2021 ● **How Far is Too Far? Generalization of a Regression Discontinuity Design Away from the Cutoff**

UCSD Econometric Seminar. University of California San Diego. San Diego, CA. *Online*

2020 ● **All Things Equal? Heterogeneity in Policy Effectiveness against COVID-19 Spread in Chile**

Economics and COVID-19 Seminar. *Universidad Adolfo Ibanez*. Santiago, Chile

2020 ● **How Far is Too Far? Generalization of a Regression Discontinuity Design Away from the Cutoff**

Atlantic Causal Inference Conference. *Suspended due to COVID-19*. Austin, TX

2019 ● **Building Representative Matched Samples with Multivalued Treatments in Large Observational Studies**

ENAR Spring Meeting, Philadelphia, PA

2018 ● **Better Together? Social Networks in Truancy and the Targeting of Treatment**

APPAM Fall Research Conference, Washington, DC

2018 ● **Better Together? Social Networks in Truancy and the Targeting of Treatment**

NBER Economics of Education Meeting. Cambridge, MA. *(Presented by co-author in a conference that we both attended)*

🔍 RESEARCH EXPERIENCE

2020
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2016
Senior Research Assistant
Prof. Peter Bergman, Teachers College, Columbia Univesity

2017
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2015
Research Assistant
Prof. Jose Zubizarreta, Columbia University

2013/2014
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2012
Research Analyst
Abdul Latif Jameel Poverty Action Lab (J-PAL), Santiago, Chile

2012
External Consultant
Inter-American Development Bank (IDB), Washington, DC

💬 STUDENT ADVISING

2023
PhD. Dissertation Committee, Economics Department
Gue Sung Choi
Jinyeong Son

· University of Texas at Austin

2023
PhD. Dissertation Committee, Statistics Group, McCombs School of Business
Pedro Santos
Shentao Yang

· University of Texas at Austin

Software Skills

- ▦ Statistical software: R (advanced), Stata (advanced)
- 🖥 Programming Languages: Python (advanced)
- 🖥 Other software: ArcGIS (advanced), MS Excel (advanced)

Additional information

- 💬 Languages: English (fluent), Spanish (native)
- 📍 Nationality: Chilean