

MUCHIN BAZAN

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EDUCATION AND EMPLOYMENT

Georgia Institute of Technology *January 2024 - Present*
Postdoctoral Scholar

Centers for Disease Control and Prevention *August 2022 - December 2023*
Prevention Effectiveness Fellow

Virginia Polytechnic Institute and State University *May 2022*
Ph.D., Economics (Dissertation title: “Essays on Education and Health”) Overall GPA: 3.90/4

Virginia Polytechnic Institute and State University *December 2018*
M.A.; Economics

University of Warwick *December 2017*
MSc.; Economics Distinction awarded
Thesis title: “The Effect of International Trade Markets on the Productivity of Firms: A Case of Learning by Exporting in the U.K.”

Universidad de Piura *December 2011*
B.Sci.; Economics Distinction awarded
Thesis title: “The Determinants of the Interest Rate Margins: An Econometric Analysis”

RESEARCH AND TEACHING INTERESTS

Research Interest: Development Economics, Applied Microeconomics, Health Economics, Experimental Economics

Teaching Interest: Introductory and intermediate courses in Microeconomics and Macroeconomics, Econometrics, Development Economics, Health Economics, Statistics

PUBLICATIONS

—“[Are Pilot Experiments Random? Social Connections and Policy Expansion in China](#)”
(with Jinyang Yang), February 2021,
The Journal of the Economics of Ageing, 18, 1-13.

—“[Women in Engineering: The Role of Role Models](#)”
(with Marcos Agurto, Siddharth Hari, and Sudipta Sarangi), November 2021,
GLO Discussion Paper, No. 975, Global Labor Organization (GLO), Essen.

RESEARCH PAPERS

—“[The Impact of In-Utero Flood Shocks on Education Achievement: Evidence From El Niño in Peru](#)”
This paper investigates the long-term effects of in-utero exposure to floods. Using data from the Peruvian National Household Survey (ENAHO) over the period 2001-2017, I examine the completion of primary and secondary education for individuals born between 1975 and 1983 following the exposure to floods during the 1982-1983 El Niño in Peru. The findings indicate that the probability of completing primary education during adulthood decreases by 1.5 percentage points after in-utero exposure to the 1982-1983 floods. The effects are statistically significant only for individuals in urban dwellings and they are robust to the inclusion of covariates. Individuals, who experienced prenatal exposure to floods, are more likely to suffer a chronic disease later in life. In contrast, the estimates on income variables are statistically insignificant. In addition, this study demonstrates that boy fetuses are disadvantaged

when affected in-utero compared to girls fetuses, and that family characteristics such as parental education play an important role in the educational achievement of daughters and sons. In a context where the occurrence of El Niño events is more frequent due to climate change, most vulnerable groups need the help of the government to better prepare for extreme weather conditions.

—“[To Inspire and to Inform: The Role of Role Models](#)”

(with Marcos Agurto, Siddharth Hari, and Sudipta Sarangi), August 2024: Revised and Resubmitted at World Bank Review.

Bridging the gender gap in STEM fields has emerged as a concern for policymakers both in developed and developing countries. This paper examines the impact of light touch intervention where female engineering students act as role-models for high school students in Peru. We find that a brief 20-minute interaction with the role-models led to sharp increases in preferences towards engineering, with the effects being concentrated on female students with high math aptitude. We find that these results are driven by increased self-confidence as a result of exposure to role models. Set in the context of a developing country, our results show that low-cost interventions can be helpful in reducing the STEM gender gap but cannot address broader deep seated gender stereotypes.

“[To Quit or to Stay? Academic Probation in College](#)”

Academic probation (AP) is a warning received by students failing to make substantial academic progress required for graduation. By receiving AP, students get additional information about their capabilities to successfully complete a degree. This paper explores the effect of AP on college drop-out rates and academic performance by using administrative data from a private university, and a Regression Discontinuity Design (RD). I exploit variation on academic outcomes and students’ drop-out decisions around the minimum grade point average (GPA) that determines AP status. I find that students exposed to AP left their academic programs the subsequent semester. While men dropped-out due to probation, women drop-out rates were not affected. Instead women exposed to probation continued their programs but they performed worse in subsequent periods. I find differentiated effects between STEM and non-STEM fields of study. Set in the context of a developing country, my results show that college internal rules could lead to efficient allocation of students to college degrees in settings with predominant gender stereotypes.

WORKING PAPERS

- The Effect of Daily Stressors on the Wellbeing of Caregivers and Individuals with Dementia and Alzheimer in Rural Appalachian, with Tina Savla

This research studies caregivers accounts of daily symptoms and behaviors of patients with dementia and Alzheimer and evaluates how these attitudes and symptoms are associated with the usage of services, and caregivers psychological well-being.

- Quasi-Experimental Evidence From a Nutritional Program in Peru: The Case of Qaliwarma, with Gustavo Acosta and Shahadath Hossain We study the effect of a nutritional program on students’ academic performance in math and Spanish.
- School Closures, COVID-19 State Restrictions and Students’ Learning in India, with Shatakshee Dhongde and Abu Shonchoy. This research studies the effect of state COVID-19 restrictions and the duration of school closures on primary and secondary students’ academic performance in India.
- Cost of Field Epidemiology Training Program in Guinea and Liberia: A training of the health workforce targeting multiple cohorts, with Nelly Mejía and Reina Turcios. This research evaluates the cost of field epidemiology training programs in two West African countries using a costing tool, program’s budget and multiple cohorts.

TEACHING EXPERIENCE

Georgia Institute of Technology
Department of Economics. Instructor
Course: *Development Economics* (Spring 2024)

January 2024 - May 2024

Universidad de Piura
Department of Economics. Adjunct Professor
Courses: *Impact Evaluation Methods* (Fall 2023), *Topics of Research in Economics 2* (Fall 2023, Spring 2024, Fall 2024), *Behavioral Economics* (Fall 2024)

August 2023 - Present

Virginia Polytechnic Institute and State University *July 2022 - August 2022*
Department of Economics. Adjunct Professor
Course: *Analysis of Economic Data* (Summer 2022)

Johns Hopkins Center for Talented Youth (CTY)
Instructor, Course: *Fundamentals of Microeconomics* (Summer 2022), *Game Theory and Economics* (Summer 2022), *Probability and Game Theory* (Summer 2024)

The Research Institute in Economics and Finance (RIEF) *February 2022*
Instructor, Course: *Causal Inference*

Virginia Polytechnic Institute and State University *August 2017- May 2020*
Graduate Teaching Assistant, Department of Economics, Courses: *Principle of Economics* (Fall 2017, Spring 2018, Spring 2020), *Economics of Justice* (Fall 2018), *Economics of China* (Spring 2019, Fall 2019)

Universidad de Piura *May 2019-August 2019*
Instructor, Department of Economics, Course: *STATA for Economists*

Universidad de Piura *August 2014- December 2014*
Teaching Assistant, Department of Economics. Course: *Portfolio Theory*

ESAN Graduate School of Business *September 2012- September 2013*
Graduate Teaching Assistant, Courses: *Government and Enterprises, Macroeconomics, Industrial Organization, Competition Law and Consumer Protection Law*

PROFESSIONAL EXPERIENCE

Virginia Polytechnic Institute and State University *August 2020 - May 2022*
Department of Human Development and Family Science
Center for Gerontology
Graduate Research Assistant

Inter-American Development Bank *June 2021 - October 2021*
Products and External Services Consultant

Economics Department
Virginia Polytechnic Institute and State University *August 2018 - August 2020*
Research Assistant

Superintendence of Banks, and Insurance Companies (SBS) *June 2014 - September 2016*
-Peru
Analyst

ESAN Graduate School of Business *September 2012 - September 2013*
Research Assistant, Centre for Intellectual Property, Competition, Consumer and Trade

Maximixe Consult-Peru *June 2012 - August 2012*
Economic Analyst

AWARDS AND HONORS

Global Labor Organization *November 2021 - Present*
Fellow

GLO Virtual Young Scholar *November 2020-July 2021*

Graduate Student Travel Award, Graduate School,

Virginia Polytechnic Institute and State University	2020-2021
People's Choice Award: Fifth Nutshell Games Virginia Polytechnic Institute and State University.	November 2020
Best Third Year Paper Award Virginia Polytechnic Institute and State University.	June 2020
Rising Scholar Fellowship Award Virginia Polytechnic Institute and State University.	May 2020
2020 Research Symposium Virginia Polytechnic Institute and State University. First place in 15-minute research oral presentation. <i>Category: Eye-opening societal interventions.</i>	April 2020
Graduate Fellowship, Virginia Polytechnic Institute and State University	August 2017-May 2022

CONFERENCES AND WORKSHOPS

2025: ASSA 2025

2024: SEA 2024, SEM 2024, 4th Annual SEEDS Conference, 2024 APHA Annual Meeting

2023: NEUDC 2023, SEA 2023, Annual Health Econometrics Workshop, APPAM

2022: ASSA 2022 Annual Meeting, JILAEE Seminars, AFE 2022, 100 years of Economic Development Conference

2021: WEAI 2021, AERA's 2021 Annual Meeting, 47th Annual Conference Eastern Economic Association, MEA's 85th Virtual Annual Meeting, 48th Annual Meeting VAE, CEA 2021, BYEM 2021, Ridge Impact Evaluation Workshop, SEA 2021

2020: GSA Research Symposium-Virginia Polytechnic Institute and State University, 8th UDEP Workshop for Young Economists, JILAEE Eworkshop Field Experiments in Economics, ESA Global online meetings, SEA 90th Annual Meeting, MVEA 57th Annual Meeting.

SOFTWARE AND LANGUAGES

Software: Stata, R, Python, Matlab, ArcGIS, Microsoft Office, LaTeX
 Languages: Spanish (Native), English (Fluent), French (Basic)

REVIEWER ACTIVITY

—Economic Modelling, Contemporary Economic Policy, Journal of Economic Behavior & Organization, China Economic Review, PLOS ONE, Journal of Population Economics

COMMUNITY SERVICES & LEADERSHIP EXPERIENCE

Development Econ Seminar, Organizer
 Georgia Institute of Technology Fall 2024

Graduate Student Assembly (GSA) Representative Fall 2019, Spring 2020, Fall 2020
 The Graduate Student Assembly (GSA) is the governing body of graduate students that works to improve campus life, scholarly development, and the graduate community.

Programs Committee Member, GSA,
 Virginia Polytechnic Institute and State University Fall 2019, Spring 2020

Designed and reviewed applications to the Graduate Research Development Program and Graduate Research Symposium.

Educa, Impacta, Crece (EIC)- Peru

2015

Taught classes to children between six and seven years old at Fe y Alegria School in the outskirts of Lima- Peru. Stimulated particular behaviors in children such as self- esteem, empathy, social abilities, and self-control.

REFERENCES

Prof. Sudipta Sarangi
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Virginia Polytechnic Institute and
State University
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and Family Science
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State University
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