

Ignacio Martinez, PhD

Head of Impact Measurement @YouTube

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Immigration status: US Citizen

Positions

Head of Impact Measurement @YouTube	2023-
Staff Economist and Manager, Google	2021-2023
Senior Economist, Google	2019-2021
Researcher, Mathematica Policy Research	2015-2019
Research Associate, University of Virginia	2014-2015
Instructor, University of Virginia	2012-2015
Teaching Assistant, University of Virginia	2008-2011

Education

Ph.D. Economics, University of Virginia	2014
M.A. Economics, University of Virginia	2010
Lic. Economics, Universidad Nacional de Tucumán	2008

Experience

YouTube (2023-)

As Head of Impact Measurement at YouTube, I oversee a team of business data scientists who are responsible for speaking on behalf of data to help executives make data-driven decisions. My team draws from the econometrics and machine learning literature to design both experimental and observational studies. We collaborate with various teams across the organization while maintaining our independence to ensure objectivity. Additionally, my team is responsible for the YouTube Data-Driven Decisions Clearinghouse, a central location for assessing quality, storing, and organizing relevant impact evaluations studies.

Google (2019-2023)

As a Staff Economist under the Chief Economist at Google, I bring my expertise in causal inference methods, knowledge of advanced data analytics, ability to solve complex problems using data and rigorous methods, experience managing diverse teams, and outside of the box thinking to help decision-makers use data to inform the choices they make. On the Econometrics team, my causal inference work includes incrementality and forecasting studies. I work with a wide range of teams to frame the questions at hand, design studies to answer those questions, implement studies, and interpret results from analyses. As a core member of the incrementality council, I was the driving force behind instituting multiple tiers to account for different levels of rigor. I also support colleagues on other teams in their analyses, providing both high level feedback as well as continuous technical support. I also support my teammates both technically and in their career growth. As a Manager my goals are to build community, deliver results, and develop people.

Mathematica (2015-2019)

As a researcher at Mathematica, I conducted research to support government and philanthropic decision makers working on education and health policies and programs. I was a core member of the team that developed, piloted, and rolled out an innovative tool to support decision making with data called the Rapid Cycle Evaluation Coach. I worked on a project to build a new tool for school districts to use as an early warning system to predict their students' end-of-year academic performance. I led diverse teams to help our clients use data to inform important decisions. For example, I was the Deputy Project Director on a project that used machine learning to build and validate a predictive model of school enrollment demand using rank ordered common school lottery applications for Washington DC public and public charter schools. We also built an easy to use dashboard so decision makers could run simulations without the need of having any advanced knowledge. In addition to my research in education, I used my knowledge of Bayesian statistics and high-performance computing to answer important research questions in other sectors such as labor and health, and I supported internal company efforts to innovate as a part of a small team to bring innovative technical ideas to our proposals for new work.

University of Virginia (2008-2015)

Research Associate (2014-2015) in the Curry School of Education, conducted web-scraping on data to build an archive, estimated econometric models with administrative data, and designed interfaces for a randomized control trial.

Instructor (2012-2015), for Principles of Microeconomics, designed the course, lectured, and evaluated up to 80 students.

Teaching Assistant (2008-2011) for Introduction to Regression Analysis, Economics of Education, Intermediate Macroeconomics & Microeconomics, and Principles of Macroeconomics & Microeconomics, led discussion sections and held office hours.

Papers and Publications

Martinez, Ignacio. (2022). The Latino Economist: "Ignacio Martinez Speaks on Data's Behalf." <https://hispanicexecutive.com/ignacio-martinez-google/>

Martinez, I., & Vives-i-Bastida, J. (2022). Bayesian and Frequentist Inference for Synthetic Controls. arXiv preprint arXiv:2206.01779.

Ben-Shalom, Y., Martinez, I., & Finucane, M. M. (2021). Risk of Workforce Exit due to Disability: State Differences in 2003–2016. *Journal of Survey Statistics and Methodology*, 9(2), 209-230.

Zurovac, Jelena, Michael Barna, Joseph Zickafoose, Mariel Finucane, Angela Merrill, Ning Fu, Lauren Vollmer, Ignacio Martinez, Heather Dahlen, Svetlana Bronnikov, Dean Miller, and John McCauley. "Impact Evaluation of the Transforming Clinical Practice Initiative: Interim Findings for Medicare" Report submitted to the Centers for Medicare & Medicaid Services. Washington, DC: Mathematica Policy Research, September 27, 2019.

Chandler, J. J., Martinez, I., Finucane, M. M., Terziev, J. G., & Resch, A. M. (2020). "Speaking on data's behalf: What researchers say and how audiences choose." *Evaluation Review*, 44(4), 325-353.

Zurovac, Jelena, Michael Barna, Mariel Finucane, Ning Fu, Dean Miller, Ignacio Martinez, Joseph Zickafoose, Angela Merrill, Lauren Vollmer, Svetlana Bronnikov, Joli Holmes, and John McCauley. "The Transforming Clinical Practice Initiative Impact Evaluation: Interim Findings."

Report submitted to the Centers for Medicare & Medicaid Services. Washington, DC: Mathematica Policy Research, October 22, 2018.

Finucane, Mariel, Ignacio Martinez, and Scott Cody. "What Works for Whom? A Bayesian Approach to Channeling Big Data Streams for Public Program Evaluation." *American Journal of Evaluation*, vol. 39, issue 1, March 2018, pp. 109-122.

Chojnacki, Greg, Alex Resch, Alma Vigil, Ignacio Martinez, and Steve Bates. "Understanding Types of Evidence: A Guide for Educators." Washington, DC: Mathematica Policy Research, 2016.

Martinez, Ignacio, and Paul Diver. "MOOCs as a Massive Research Laboratory: Opportunities and Challenges." *Distance Education*, vol. 36, no. 1, 2015, pp. 5-25.

Martinez, Ignacio, and Sarah Turner. "The Productivity of Pell Grant Spending: Enrollment versus Attainment." *Change: The Magazine of Higher Learning*, vol. 47, no. 5, 2015, pp. 55-62.

Martinez, Ignacio. "The Hawthorne Effect in MOOCs." Working paper. Charlottesville, VA, 2014.

Martinez, Ignacio, Louis Bloomfield, and Sarah Turner "Massive Open Online Courses (MOOCs) as a Brick-and-Mortar Complement." Working paper. Charlottesville, VA: University of Virginia, 2014.

Martinez, Ignacio. "The Effects of Informational Nudges on Students' Effort and Performance: Lessons from a MOOC." Working paper. Charlottesville, VA: University of Virginia, Curry School of Education, December 2013.

Presentations

Martinez, Ignacio. "Data driven decision making at Google." Statfoo 2021

Martinez, Ignacio. "Bayesian Additive Regression Trees (BART) for Causal Inference." Statfoo 2020

Martinez, Ignacio. "Asking one question and answering another: when decisions and statistical analysis are not aligned." StanCon 2020

Martinez, Ignacio. "The Ed Tech Rapid Cycle Evaluation Coach: Turning Evidence into Action." Presentation at APPAM, Washington, DC, November 8, 2018.

Martinez, Ignacio. "Predictive Analytics and Early Warning Systems for End of Year Academic Performance." Presentation at the 9th DC Data Summit, Washington, DC, July 12, 2018.

Martinez, Ignacio, Alex Resch, and Mikia Manley. "Actionable Evidence: Using the Rapid Cycle Evaluation Coach to Support Education Decision Making." Presentation at the Maryland Connections Summit 2018, Towson, MD, June 6, 2018.

Martinez, Ignacio. "School Enrollment Demand Simulator: Helping Policymakers Predict the Effects of School Choice Policies on Student Sorting." Presentation at The Forum @DC, Washington, DC, February 27, 2018.

Martinez, Ignacio. "Using the Rapid Cycle Evaluation for Ed Tech Toolkit to Evaluate What Works in Your Schools." Presentation at the AEA Evaluation 2017, Washington, DC, November 8, 2017; and the iNACOL Symposium 2017, Orlando, FL, October 24, 2017.

Martinez, Ignacio. "Rapid Cycle Technology Evaluation Coach." Presentation at the Large District Fly-In, Washington, DC, May 10, 2017; and the Changing Education Together 2017 Conference, Barcelona, Spain, March 1, 2017.

Martinez, Ignacio. "Evaluation of Nearpod in Springdale Public Schools." Presentation at the American Educational Research Association 2016 Annual Meeting, Washington, DC, April 11, 2016.

Martinez, Ignacio. "Never Put Off Till Tomorrow?" Presentation at the Association for Education Finance and Policy 41st Annual Conference, Denver, March 18, 2016; and the Bankard Applied Microeconomics Workshop, Charlottesville, VA, September 2014.

Martinez, Ignacio. "MOOCs: Opportunities and Challenges." Presentation at the Partners' Conference, Recent Research Panel, London, March 2014; and the GABFest, Charlottesville, VA, November 2013.

Martinez, Ignacio. "Reasoning, Logic, and Decision Making." Presentation at the Huskey Research Exhibition, Charlottesville, VA, March 2014.

Martinez, Ignacio. "Lessons from a MOOC." Presentation at EdPolicyWorks, The Center on Education Policy and Workforce Competitiveness, Charlottesville, VA, December 2013.

Honors and Awards

Google's Renaissance Innovation Award	2021
Mathematica's Bright Star Award	2016
Robert J. Huskey Travel Fellowship, University of Virginia	2014
Parents Committee Grant, University of Virginia	2013
Big Data Initiative Award sponsored by the Jefferson Trust and the Vice President for Research	2013
Bankard Pre-doctoral Fellowship, University of Virginia	2012-2013
Snaveley Prize for Outstanding Dissertation Proposal, University of Virginia	2012
Department of Economics Graduate Fellowship, University of Virginia	2008-2012

Information Technology

Stan, Fortran, R, C++ (Rcpp), BASH, OpenMP, MPI, MySQL

Languages

Spanish (native), French (basic)