Roberto Mosquera

CURRENT POSITION: Assistant Professor, Department of Economics | Universidad de las Americas
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EDUCATION

2015-2019	Ph.D in Economics, **Texas A&M University** Committee chairs: Dr. Steve Puller and Dr. Jason Lindo
2006-2008	M.S. in Economics, **Texas A&M University** Committee chair: Dr. Li Gan
1998-2004	B.S. in Economics **Pontificia Universidad Catolica del Ecuador**, Ecuador Class valedictorian

RESEARCH INTERESTS

Applied Microeconomics, Labor, Health, Public Economics, Transportation, Credit Markets, Development

ACADEMIC PUBLICATIONS

- "Traffic noise and property values: an instrumental variable strategy for hedonic valuation" (with Luis Bravo-Moncayo, Virginia Puyana-Romero, Michelle Romero, José Lucio-Naranjo and Enrique Suárez), *Journal of Environmental Planning and Management* (forthcoming).

- "The long-term effect of resource booms on human capital," *Labour Economics* (2022). https://doi.org/10.1016/j.labeco.2021.102090

- "The economic effects of Facebook" (with Mofioluwasademi Odunowo, Trent McNamara, Xiongfei Guo, and Ragan Petrie), *Experimental Economics* (2019). https://doi.org/10.1007/s10683-019-09625-y

- "Contingent valuation of road traffic noise: A case study in the urban area of Quito, Ecuador" (with Luis Bravo-Moncayo, José Lucio Naranjo and Ignacio Pavón García). *Case Studies on Transport Policy*, No. 5 (2017):722–730. https://doi.org/10.1016/j.cstp.2017.08.003

- "Neural based contingent valuation of road traffic noise" (with Luis Bravo-Moncayo, José Lucio Naranjo and Ignacio Pavón García). *Transportation Research Part D*, No. 50 (2017):26-39. https://doi.org/10.1016/j.trd.2016.10.020

WORKING PAPERS

"Signaling on the Labor Market: Evidence from College Scorecards"
(with Melissa Miranda)

Theory suggests that one of the reasons why individuals choose to attend a particular college is to signal their productivity to the labor market. Testing this prediction is challenging because it requires variation in the signal while keeping human capital constant. We study this proposition by exploiting an exogenous information change in the signal of graduating from a particular college. We analyze the effect of an unexpected change in a governmental college scorecard in Ecuador. Due to an unanticipated change in the ranking methodology, seven out of the 11 highest-ranked universities fell to a lower ranking. If the signal of graduating from a particular university matters in the labor market, the ranking change should affect employment and wages. With access to proprietary data on 373,297 individuals, we implement a difference-in-differences design, comparing individuals whose universities maintained the highest ranking in 2013 to individuals whose universities' ranking lowered in 2013. We show a series of results consistent with signaling effects in a model where employers do not initially observe a worker's ability but learn about it over time. First, the ranking change decreased the probability of salaried employment and monthly wages for individuals who recently entered the labor market and whose universities decreased in ranking. Second, this effect fades over time as individuals find other channels to reveal their productivity. Third, more experienced individuals were not affected by the ranking change, consistent with employers knowing their productivity. Fourth, we show that the effect is driven by those employers more likely to rely on signaling to infer a potential worker's productivity. In addition, we present several robustness checks that support the validity of the identification assumptions, including evidence that the decrease in the ranking was not caused by changes that affected human capital accumulation.

"Cash Transfers and Health: Measuring the effects of cash transfers programs on the probability and time duration of preventable diseases"
(with Gabriel Urbina)
Top ten worldwide causes of death accounts for more than a half of total deaths and most of them are caused by preventable diseases, especially in lower-middle-income countries. These countries have some public policy programs known as Conditional Cash Transfers which can alleviate this problem but there are some intermediate mechanisms related to behavior that these programs have to improve first. This paper studies the Ecuadorian program called Bono de Desarrollo Humano (BDH). We exploit a discontinuity defined over a wealth index used to target beneficiaries of BDH to estimate the causal effects of BDH on the probability and time duration of preventable diseases. We explain the causal chain by measuring the effects over variables related to health demand. These intermediate mechanisms drive the effects of CT on health. We find that BDH reduces the probability and the time duration of preventable diseases by 11% and 4 days approximately. These effects are mostly driven by children subject to the conditionalities of BDH. These conditionalities play a role on the opportunity costs and health demand of public medical care. We find that BDH caused a substitution effect between private and public healthcare and a reduction in households' health spending. This paper shows that BDH can reduce the risk of preventable diseases but only through behavioral changes related to healthcare.

"The Growing Divide: The Case of (Mis)Information and Polarization" (under review)
(with Trent McNamara)
The divergence of political attitudes towards their ideological extremes has become an identifying feature of political markets in the United States. Little is known about the source of this divergence, how large it is, whether information can attenuate these differences, and what its impact is on political support and civic engagement. We run a field experiment to recover a distribution of polarization for American constituents. Our design allows us to novelly identify that the rise in polarization is driven by varying perceptions rather than changes in preferences. We randomly

introduce factual information and show that it corrects these misaligned beliefs. We further use this variation to estimate polarization's impact on a suite of outcomes, including government support, views about government efficiency, and the willingness to compromise. We document that increasing polarization results in an individual being 0.35 s.d. less supportive towards the government, believe the government is less efficient by 0.42 s.d. and are less willing to compromise and trust by 0.43 s.d. We do not find any significant changes when reducing polarization. This asymmetric response is consistent with the literature showing that negative information has a greater impact on attitudes and beliefs than does positive information.

"Age and the labor market for Hispanics in the United States"
(with Joanna Lahey)
We explore the labor market for Hispanic high school graduates in the United States by age using information from the US Census, American Community Survey, Current Population Survey, and three laboratory experiments. We find, in general, that the differences in outcomes for Hispanic and non-Hispanic high school graduates do not change across the lifecycle. Moving to a laboratory setting, we provided participants with randomized resumes for a clerical position that are on average equivalent except for name and age (as indicated by date of high school graduation). In all three experiments, hypothetical applicants with Hispanic and non-Hispanic names were generally treated the same across the lifecycle by a student population, a population of human resources managers, and a more general population from mTurk. These results stand in contrast to earlier results that find strong differences by age in how resumes with Black and White names are treated.

"Coarse Variable Measures and Biased Instrumental Variables Effects"
This paper demonstrates that, if the observed measure of treatment takes fewer values than the actual variable that affects the outcome, then IV methods will overestimate the effect. For instance, this bias affects estimates of education returns, because years of education is a coarse measure of the human capital accumulation process through schooling. This paper shows how to use nonparametric bounds to assess the magnitude of this bias. Through application to the returns of schooling, this paper finds that biased OLS estimates lie below the bounds, while IV estimates exceed them, indicating that IV yields an overestimate of the returns.

"Stuck in Traffic: Measuring Congestion Externalities with Negative Supply Shocks" (under review)
Traffic is an increasingly complex issue around the world. The fact that most cities do not charge Pigovian taxes on road usage or use other congestion pricing schemes implies that these congestion costs are higher than their socially optimal levels. This paper shows how changing the number of vehicles on the streets of New York City, affects traffic congestion and the substitution patterns to other transportation modes and quantifies the associated welfare changes. I exploit an exogenous reduction in for-hire vehicle supply during the two major Islamic holidays. Supply is affected because 57.5 percent of taxi drivers and 33.1 percent of other for-hire drivers come from countries with large Muslim populations while demand is unaltered since the Muslim population only represents 3 percent of the total population in the city. The estimates indicate that during Muslim holidays the number of active taxis decreases by 1,000 (9.1 percent of the total), which decreases time per mile traveled (the inverse of speed) by 0.46 minutes. I also estimate substitution patterns towards other modes of transportation. A welfare calibration exercise suggests that an unanticipated reduction of active vehicles in the city results in daily welfare gains between $8 and $12 million.

"Vaccines at Work"

(with Manuel Hoffmann and Adrian Chadi) (under review)

We study whether getting vaccinated causes a moral hazard problem that could decrease the effectiveness of the vaccine in the context of seasonal influenza. We ran a natural field experiment in partnership with a major bank in Ecuador where we experimentally modified its annual vaccination campaign. We find that vaccination take-up increases 112% by assigning employees to get the flu shot during a workday compared to Saturday, which indicates that opportunity costs play an important role in vaccine take-up. Peers' take-up also increases individual take-up in a meaningful way. Contrary to expectations, we find that the effect of vaccination on flu diagnoses and sick days due to the flu is a precise zero. A rich data set of administrative records and employee surveys allows us to analyze if moral hazard explains the ineffectiveness of flu vaccination. In particular, we look for effects of vaccination on respiratory diseases where the flu vaccine grants no immunity protection, and we check for changes in habits and beliefs related to preventing the flu. We present evidence consistent with a change towards riskier behavior that suggests that vaccinated individuals expose themselves more to viruses and rule out other potential mechanisms.

"Rate Caps, Competition and Welfare: Evidence from Ecuador's Consumer Credit Market"
(with Luis Antonio Vaca)

The dynamics of the credit market make the welfare implications of rate caps theoretically ambiguous. On the one hand, it is true that a sufficiently low interest rate ceiling will ration credit. On the other hand, if banks have market power then interest rate caps may be welfare enhancing. In this paper we exploit a natural experiment in Ecuador to analyze the effects of interest rate ceilings on access to consumer loans and on economic welfare. In August 2007, Ecuador switched from a regime that in practice implied no ceilings to a regime of increasingly binding interest rate caps. This policy change is an exogenous source of variation that potentially excluded some individuals from the consumer credit market. Our preferred estimates suggest that access to banks decreased between 0.5 and 1.1 percentage points in a country where access to consumer loans was 10.8% before the adoption of the policy.

"An Empirical Study of the Credit Market with Unobserved Consumer Types"
(with Li Gan)
National Bureau of Economic Research, NBER Working Paper No. 13873

This paper proposes an econometric model to identify unobserved consumer types in the credit market. Consumers choose different amounts of loan because of differences in their time or risk preferences (types). Thus, the unconditional probability of default is modeled using a mixture density combining a type-conditioning default variable with a type-determining random variable. The model is estimated using individual-level consumer credit card information. The parameter estimates and statistical tests support this kind of specification. Furthermore, the model produces better out-of-sample predictions on the probability of default than traditional models; hence, it provides evidence of the existence of types in the consumer credit market.

WORK IN PROGRESS

"Making Saving Appealing: Evidence from a Field Experiment"

"Tropical Diseases and the Timing of Pregnancies" (with Manuel Hoffmann and Fabian Villarreal)

"Effect of conditional cash transfers of labor supply decisions and intrahousehold substitution patterns" (with Daniela Santillan)

"Effects of Positive and Negative Peer Pressure" (with Manuel Hoffmann and Daniel Stephenson)

PRESENTATIONS AND WORKSHOPS

Southern Economic Association Annual Meetings (2021)
Western Economic Association Annual Conference (2021)
AEA/ASSA Annual Meeting (2021)
Southern Economic Association Annual Meetings (2020)
NBER Workshop on Longer Working Lives and Labor Demand (2020)
Working Longer and Retirement Conference SIERP (2020)
Western Economic Association Annual Conference (2020)
AEA/ASSA Annual Meeting (2020)
NBER Workshop on Longer Working Lives and Labor Demand (2019)
Applied Economics Research Symposium (2019)
AEA/ASSA Annual Meeting (2019)
Southern Economic Association Annual Meetings (2018)
APPAM Fall Research Conference APPAM (2018)
AHEC Conference (2018)
Advances in Field Experiments Conference (2018)
STATA Texas Empirical Microeconomics Conference (2018)
APPAM DC Regional Student Conference (2017)
Jóvenes Investigadores Ecuatorianos en Economía, Interamerican Development Bank (2010)
PERC Applied Microeconomics seminar Texas A&M University (2008)

Teaching Experience

Universidad de las Américas–Department of Economics (masters)

Sep 2019– | Statistics (Instructor of Record)
Econometrics I (Instructor of Record)
Applied Economics (Instructor of Record)

Universidad de las Américas–Department of Economics (undergraduate level)

Sep 2019– | Econometrics I (Instructor of Record)

Texas A&M University

Summer 2018 | Game Theory (ECON 459) (Instructor of Record)
Course Evaluations: 4.36/5

Universidad de las Américas–MBA program

Jan 2009–July 2015 | Quantitative Analysis (Instructor of Record), Fall 2010, Spring 2011, Fall 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2013, Spring 2014, Fall 2014, Spring 2015

Universidad de las Américas–Department of Economics (undergraduate level)

Jan 2009–July 2015 | Econometrics I (Instructor of Record), Spring 2009, Fall 2009, Spring 2010, Fall 2010, Spring 2011, Fall 2011, Spring 2015
Econometrics II (Instructor of Record), Spring 2012, Spring 2013, Spring 2014
Econometrics III (Instructor of Record), Fall 2012, Fall 2013, Fall 2014, Spring 2015
Intermediate Macro I (Instructor of Record), Fall 2012, Fall 2013
Intermediate Macro II (Instructor of Record), Spring 2013, Spring 2014
Advanced Microeconomics (Instructor of Record), Fall 2014
Research seminar (Instructor of Record), Spring 2011

Referee Experience

Economic Inquiry, Journal of Health Economics, Review of Economics of the Household, Journal of Population Economics, Economics of Education Review, Cuestiones Economicas. Journal of Economic Behavior and Organization, Journal of Behavioral and Experimental Economics

Professional Experience

Jan 2009-2019	**Consultant at TNK Economics**
	Lead research team in multiple projects related to macroeconomic analysis, financial analysis, consumption behavior and public policy analysis. Estimated risk scoring models, collection models and CRM analytic models for major Ecuadorian banks.
Jun-Dec 2008	**Project Leader at Reis Datum**
	Estimated predictive models of individual income, consumption and savings behavior.
Oct 2004-May 2006	**Credit Analyst at DINERS CLUB of Ecuador**
	Estimated predictive models of credit card fraud behavior and credit scoring models. Designed and implemented a new procedure for monitoring and managing fraud risk
Jan-Jun 2003	**Financial Control Assistant at Produbanco**
	Compiled financial reports, budget reports and performance reports.

Other Experience

Sep 2016-May 2019	Research Assistant Dr. Marco Castillo.
2016	Teaching Assistant Dr. Daniel Fragiadakis.
Sep-Dec 2015	Teaching Assistant Dr. Tatevik Sekhposyan.
Jan-Dec 1999	Teaching Assistant Dr. Juan Paz y Mino.

Fellowships, Honors and Awards

March 2019	Best Paper Presentation, Applied Economics Research Symposium
Jun-Aug 2017	E. Ralph Daniel Scholarship awarded by the Private Enterprise Research Center, Texas A&M University.
Sep 2015-Present	Graduate Assistantship awarded by the Department of Economics, Texas A&M University.
Jun 2014	Citi Journalistic Excellence Award, granted by Citibank.
2006-2008	Fulbright Scholarship
2003	Gold Medal for Outstanding Academic Performance in Economics, Economics Association of Pichincha, Ecuador.
2003	Class Valedictorian, Department of Economics, Pontificia Universidad Catolica del Ecuador.
1998	President's Award for Educational Excellence, awarded by William Clinton, President of the United States.
1998	Class Valedictorian, American School of Quito, Ecuador.

Other Publications

"Una estrategia de salida por edad para Pichincha" (with Joaquin Morillo and Simon Cueva). *El Comercio*, 10 de mayo 2020. Link (Publication in Spanish).
"Ciclicalidad de la política fiscal ecuatoriana desde la dolarización" (with Simon Cueva and Maria

Caridad Ortiz). In *Reforma y Desarrollo en el Ecuador Contemporaneo*, edited by Javier Díaz-Cassou and Marta Ruiz Arranz, 2018, Interamerican Development Bank.

"Jugando al Monopolio: Paradojas de la Competencia en los Mercados Ecuatorianos" (with Daniel Godoy). *Revista Gestión*, No. 253 (2015) (Publication in Spanish).

"Desarrollo económico y lactancia materna, ¿se tiene la fórmula correcta?" (with María Alexandra Castellanos). *Revista Gestión*, No. 237 (2014) (Publication in Spanish).

"¿Cómo será el 2014? Un análisis de prospectiva económica" (with María Caridad Ortiz). *Revista Gestión*, No. 234 (2013) (Publication in Spanish).

"La era Correa: evaluación macroeconómica 2006-2012 y perspectivas" (with Luis Vaca). *Revista Gestión*, No. 229 (2013) (Publication in Spanish).

Professional Memberships

2018-present   American Economic Association
2019-present   Western Economic Association

Languages

Spanish: Mother tongue
English: Fluent
French: Basic Knowledge

Technical Knowledge

STATA, MATLAB, Dynare, Microsoft Office, Microsoft Windows.

References

Dr. Steven Puller	Dr. Jason Lindo	Dr. Ragan Petrie
Department of Economics	Department of Economics	Department of Economics
Texas A&M University	Texas A&M University	Texas A&M University
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