

RODRIGO AZUERO

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Personal Information:

Date of birth: September 10, 1986
Citizenship: Colombia. US Permanent resident.

Undergraduate Studies:

B.Sc. Economics, Universidad de los Andes, *Cum Laude*, 2009

Masters Level Work:

M.A., Economics, Universidad de los Andes, 2011

Graduate Studies:

University of Pennsylvania, 2012 to present.
Thesis Title: "Essays on the Economics of Human Capital"
Expected Completion Date: May 2017

Thesis Committee and References:

Professor Petra Todd (Advisor)
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University of Pennsylvania
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Teaching and Research Fields:

Research fields: Development Economics, Labor Economics, Applied Microeconomics, Applied Econometrics

Teaching Experience:

- Spring, 2007 Differential Calculus, Universidad de los Andes, teaching assistant to Professor Luis Jorge Ferro
- Fall, 2007 Integral Calculus, Universidad de los Andes, teaching assistant to Professor Luis Jorge Ferro
- Fall, 2007 Game Theory, Universidad de los Andes, teaching assistant to Professor Luis Jorge Ferro
- Fall, 2008 Statistics, Universidad de los Andes, teaching assistant to Professor Luis Jorge Ferro
- Spring, 2009 Stata Workshop, Universidad de los Andes, lecturer.
- Spring, 2009 Impact Evaluation in Economics, Universidad de los Andes, teaching assistant to professor Raquel Bernal
- Fall, 2013 Intermediate Microeconomics, University of Pennsylvania, teaching assistant to Professor Aislinn Bohren
- Spring, 2013 Introduction to Microeconomics, University of Pennsylvania, teaching assistant to Professor Uri Spiegel
- Fall, 2014
Spring, 2015
Spring, 2016
Fall, 2016 Statistics for Economics, University of Pennsylvania, teaching assistant to Professors Francis DiTraglia and Ben Connault
- Summer, 2015 Introduction to Microeconomics, University of Pennsylvania, lecturer.

Research Experience and Other Employment:

- 2009-2010 Universidad de los Andes, Research Assistant
- 2010-2012 Inter-American Development Bank, Research Fellow
- 2013-2016 Inter-American Development Bank, Consultant
- Fall, 2015 University of Pennsylvania, Research Assistant

Professional Activities:

Presentations: LACEA (2015); ECONCON (2015); EMCON-Northwestern University (2016); Empirical Micro Lunch, University of Pennsylvania (2015, 2016); Applied Micro Workshop, University of Pennsylvania (2016)

Referee: Journal of Labor Economics, ECONOMIA: Journal of LACEA.

Honors, Scholarships, and Fellowships:

2012-2017	University of Pennsylvania, Fellowship for PhD studies
2015	Penn Institute for Economic Research, Research Assistant Matching Grant
2016	Judith Rodin Fellow, Fellowship to students committed to nation building, University of Pennsylvania
2009	<i>Cum Laude</i> degree. Awarded to students whose GPA is in the top 3% of the last 5 years.

Publications:

Schady, N. et al. (2015). "[Wealth Gradients in Early Childhood Cognitive Development in Five Latin American Countries](#)", *Journal of Human Resources*, 50(2):446-463

Abstract

Research from the United States shows that gaps in early cognitive and non-cognitive ability appear early in the life cycle. Little is known about this important question for developing countries. This paper provides new evidence of sharp differences in cognitive development by socioeconomic status in early childhood for five Latin American countries. To help with comparability, we use the same measure of receptive language ability for all five countries. We find important differences in development in early childhood across countries, and steep socioeconomic gradients within every country. For the three countries where we can follow children over time, there are few substantive changes in scores once children enter school. Our results are robust to different ways of defining socioeconomic status, to different ways of standardizing outcomes, and to selective non-response on our measure of cognitive development.

Research Papers:

"*Evaluating Early Childhood Policies in Chile: an Estimable Model of Family Child Investment Decisions*"
(Job Market Paper)

Abstract

There is extensive evidence suggesting that skills developed early in life have consequences on adult life outcomes. Such findings have motivated a large body of literature analyzing the production of skills in young children. Nonetheless, very little is known about how families make decisions about investments in their children. In this article, I estimate a production function of skills in young children, nested within a collective model of household behavior in a developing country context. The parameters estimated are used to simulate the effects of various policies aimed at increasing skills of children in disadvantaged households that are popular in developing countries. This is the first paper in the literature evaluating cash transfers, childcare subsidies and in-kind transfers, as policy tools to decrease gaps in skills. The results show that there are substantial disparities in the skills of poor and rich children when they are five years old. I find that, in order to close this gap in skills, it is more effective to design policies that subsidize skill-enhancing goods for children than it is to design policies providing unconditional cash transfers or childcare subsidies.

“The Effects of Student Loans on the Provision and Demand for Higher Education”, With David Zarruk

We characterize the outcomes of the tertiary education market in a context where borrowing constraints bind, there is a two-tier college system operating under monopolistic competition in which colleges differ by the quality offered and returns to education depend on the quality of the school attended. College quality, tuition prices, acceptance cutoffs and education demand are all determined in a general equilibrium model and depend on the borrowing constraints that agents face. Our main finding shows that subsidized student loan policies lead to a widening gap in the quality of services provided by higher education institutions. This happens because the demand for elite institutions unambiguously increases when individuals can borrow. This does not happen in non-elite institutions, since relaxing borrowing constraints makes some individuals move from non-elite to elite institutions. The higher increase in demand for elite institutions allows them to increase prices and investment per student. If investment and average student ability are complementary inputs in the quality production function, elite universities also increase their acceptance cutoffs. In this new equilibrium, the differentiation of the product offered by colleges increases, where elite universities provide higher quality education to high-ability students and non-elite universities offer lower quality to less-able students. We calibrate the model to Colombia, which implemented massive student loan policies during the last decade and experienced an increase in the gap of quality of education provided by elite and non-elite universities. We show that the increase in the quality gap can be a by-product of the subsidized loan policies. Such results show that, when analyzed in a general equilibrium setting, subsidized loan policies can have negative effects in equilibrium.

Research Paper(s) in Progress

“The role of Executive Function in the Process of Skills formation in Children” With Norbert Schady and Yyannu Cruz-Arguayo

The process of skill formation in children has been extensively analyzed in Economics. A widely accepted distinction in skills is made between cognitive ones, related to learning and problem solving, and non-cognitive ones, related to behavior, motivation and regulation of emotions. Partly because of data limitations, the literature has ignored the potential role of executive functions in the skills formation process. Executive functions are processes related to cognitive flexibility, attentional control and inhibitory control, among others, that cannot be categorized as cognitive or non-cognitive skills. We use a sample of approximately 24,000 children in Ecuador in order to identify the role of Executive Functions in the skills formation process.

Languages: English (fluent), Spanish (native), French (advanced)

Computational Skills: C++ (OpenMP, CUDA), R, Python, Stata, Julia, Matlab

Software:

[gmapsdistance](#). R package to compute distance and travel time between two points using the Google Maps API

[Rtauchen](#). R package to discretize an AR(1) process following Tauchen (1986).