


CARLOS HURTADO

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 Department of Economics
University of Illinois at Urbana-Champaign
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EDUCATION

- Ph.D. Economics, University of Illinois at Urbana-Champaign, Urbana, IL, USA, May 2019 (*Expected*)
- M.A. Economics, Universidad de los Andes, Bogotá, Colombia, March 2012
- B.S. Mathematics, Universidad de los Andes, Bogotá, Colombia, March 2008
- B.E. Mechanical Engineering, Universidad de los Andes, Bogotá, Colombia, March 2008

RESEARCH FIELDS

- Primary Fields
 - Public Economics
 - Urban Economics
- Secondary Fields
 - Applied/Spatial Econometrics
 - Labor Economics

RESEARCH

Working Papers

- WP1. “Behavioral Responses to Spatial Tax Notches in the Retail Gasoline Market.” (**Job Market Paper**)
- WP2. “Pricing Strategy Heterogeneity in Retail Gasoline Markets.” with Julia González
- WP3. “Understanding Sources of Wage Inequality:
Additive Decomposition of the Gini Coefficient Using Quantile Regression.”

Work in Progress

- RI1. “Behavioral Responses to Tax Kinks in the Rental Housing Market: Evidence From Iran.”
with David Albouy and Kaveh Nafari

FELLOWSHIP, AWARDS AND DISTINCTIONS

- Dissertation Completion Fellowship: a.y. 2018-2019 – \$20,000
- Boltz Fellowship: summer 2018 – \$3,500
- Harbeson Fellowship: summer 2017 – \$3,500
- Invited to [HCEO 2017 Summer School of Socioeconomic Inequality](#), The University of Chicago
- Departmental awards: summer 2016 – \$2,500
- University of Illinois Fellowship: summer 2015 – \$2,000
- Boltz Fellowship: a.y. 2013-2014 – \$20,500.

CONFERENCES

- Presentations:

	Paper	Date
Southern Economic Association; 86th Annual Meeting	[WP1]	Nov. 2018*
National Tax Association; 111th Annual Conference on Taxation	[WP1]	Nov. 2018*
North American Regional Science Association; 65th International Meetings	[WP1]	Nov. 2018*
LACEA and LAMES; 2018 Annual Meeting	[WP2]	Nov. 2018*
International Atlantic Economic Society; 86th International Conference	[WP1]	Oct. 2018
Western Economic Association International; 93rd Annual Conference	[WP1]	Jun. 2018
American Real Estate and Urban Economics Association; 46th Conference	[WP1]	May. 2018
Midwest Economics Association; 2018 Annual Meeting	[WP1]	Mar. 2018
LACEA and LAMES; 2017 Annual Meeting	[WP2]	Nov. 2017
National Tax Association; 110th Annual Conference on Taxation	[WP1]	Nov. 2017
LACEA and LAMES; 2016 Annual Meeting	[WP3]	Nov. 2016
Midwest Graduate Student Summit; 9th Conference	[WP3]	Apr. 2016

* Presentation Scheduled

- Attendance:

NBER Summer Institute 2018, Public Economics	Jul. 2018
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RESEARCH EXPERIENCE

- Graduate Research Assistant:

Institute of Government and Public Affairs, University of Illinois, Urbana, Illinois, USA

- * Professors [Don Fullerton](#) and [Julian Reif](#) Jun. 2017 - Aug. 2018

Climate Policy:

- Review of literature on anticipation, tax avoidance and price elasticity of gasoline. Review of the U.S. regulation to determine the point of taxation of gasoline in every state from 1980 to 2018.

- * Professor [Elizabeth Powers](#) Aug. 2014 - May. 2017

Investments in Child Care Programs:

- Tabulation in Stata[®] of the Market Rate Survey report for child care programs in Illinois for FY2016. Spatial analysis of the child care programs in Illinois using Geographic Information System (GIS) software.

Project: Bunching at Borders.

- * Professor [David R. Agrawal](#), University of Kentucky and Nov. 2017 - Mar. 2018
Dr. [Jeffrey Lin](#), Federal Reserve Bank of Philadelphia.

- Review and creation of computer code in the statistical software Stata[®] of various calculations using the regression discontinuity design.

- Economic Analyst:

Research Assistant at [Econestudio](#), Bogotá, D.C., Colombia

- * Professor [Marcela Meléndez](#) Jul. 2012 - May. 2013

- Analysis of fiscal policy on poverty and inequality for Colombia under the [Commitment to Equity \(CEQ\)](#) project led by Nora Lustig.

Research Assistant at [Asofondos de Colombia](#), Bogotá, D.C., Colombia

- * Dr. [Santiago Montenegro](#) Aug. 2009 - Jun. 2012

- Develop a model of the pension system using detailed micro-data from the formal workers in Colombia. Analyze the financial cost of the Colombian public pension scheme.

TEACHING EXPERIENCE

- University of Illinois, Urbana-Champaign, USA, Economics Department.
 - Stand-alone course: [Numerical Methods in Economics](#). Fall 2017
An undergraduate course that reviews the foundations of numerical algorithms in Python.
 - Teaching assistant: [Applied Econometrics](#). (Masters and Ph.D.) Fall 2016
An introduction to specification, estimation, and evaluation of econometric models. I complemented the course with lectures on statistical analysis using R.
- Universidad de los Andes, Bogotá, Colombia, Economics Department.
 - Stand-alone course: [Spatial Econometrics, Summer School of Economics](#). Summer 2016
An undergraduate introduction to spatial econometrics. I developed practical examples to perform spatial analysis using R and QGIS.
 - Stand-alone course: [Game Theory](#). Summer 2015, 2016, 2017
An undergraduate course that reviews mathematical models to understand the incentives of rational agents.
- Universidad del Rosario, Bogotá, Colombia, Economics Department.
 - Stand-alone course: [Mathematical Methods for Economist](#). Fall 2012, Spring 2013
An undergraduate course that reviews mathematical tools to understand economic theory.

ACADEMIC SERVICES

- Referee: Economic Development and Cultural Change, Journal of Economic Inequality, Canadian Journal of Economics

LANGUAGES

- Spanish: Native proficiency
- English: Full professional proficiency

COMPUTER SKILLS

- Programming: R, Stata, Matlab, Python, Excel Visual Basic
- Geographic Information Systems: QGIS
- Data Management: SQL, MS Office Access and Excel
- Document Preparation System: LaTeX, HTML, MS Office Word and PowerPoint

REFERENCES

Prof. David Albouy
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(217) 300-2654
Department of Economics, UIUC

Prof. Don Fullerton
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(217) 244-3621
Department of Finance, UIUC

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College of Business, UIC

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Department of Economics, UIUC

RESEARCH DESCRIPTION

Working Papers

WP1 “Behavioral Responses to Spatial Tax Notches in the Retail Gasoline Market.” (Job Market Paper)

The effects of taxes on business location decisions and local competition are core issues in public finance. A notable feature in the literature is the lack of consensus as to whether taxes deter business entrance. The retail gasoline industry faces significant fuel tax differences across state borders that make it possible to revisit this classical debate. In this paper, I employ a unique dataset on fueling station locations in the United States and their corresponding retail gasoline prices to estimate how state tax discontinuities affect business location decisions and tax incidence. The analysis, which takes advantage of significant differences in state gasoline tax rates, shows that the expected number of fueling stations on the low-tax side of a state border is 30 percent higher than on the high-tax side. Gasoline consumers bear 75 percent of the fuel tax on the high-tax side, as compared to 100 percent on the low-tax side. The effect of the border on station location and tax incidence disappears with 15 miles of distance. These results provide some of the first estimates of the effect of tax discontinuities at borders on the location choices of retailers, their competitors, and the consequences for prices.

WP2 “Pricing Strategy Heterogeneity in Retail Gasoline Markets.” with Julia González

One stylized fact in the dynamics of retail gasoline prices is the existence of some markets with asymmetric pricing behavior where gradual price declines follow sharp price increases. Although some of the previous studies analyzing these cycles use station-level data, the heterogeneity of the cycling behavior at the retailer-level within a market has been overlooked by the empirical literature. In this paper, we fill this gap by proposing a new cycling indicator identifies cycles at the station level and overcomes misclassification from previous literature. The differences in cycling behavior at the station level provide us with a new source of variation that identifies a cycling-induced price gap of -3.4 cents within the same market. This unique identification strategy sheds light on the debate between the competitive versus the collusive explanation for these cycles. We further contribute by showing that the type of consumer targeted by stations is related to the station’s pricing strategy: non-cycling stations seek to attract inelastic consumers, while cycling stations target search-prone consumers.

WP3 “Understanding Sources of Wage Inequality: Additive Decomposition of the Gini Coefficient Using Quantile Regression.”

This paper uses the relation between the Gini index and conditional quantile functions to develop a new methodology for the measurement of the impact of various factors in the disparity of a distribution. Starting with a linear model to explain the conditional quantile function in terms of covariates, the procedure uses polynomial approximations of the estimates of the quantile regression coefficients to additively decompose the factors that contribute most to the inequality of the distribution. Moreover, using counterfactual scenarios, this paper proposes a technique to disentangle the temporal changes in the distribution. The empirical application uses data on U.S. hourly wages from the Ongoing Rotation Group of the Current Population Survey for the years 1986 and 1995 to show that changes in educational attainment are related to reductions in wage inequality during this period, especially for workers with an associate degree.

Work in Progress

RI1 “Behavioral Responses to Tax Kinks in the Rental Housing Market: Evidence From Iran.” with David Albouy and Kaveh Nafari

We exploit a distinctive feature of the tax code in the Tehran rental market where the tax-exemption threshold depends on the property’s size. We observe substantial bunching below the tax cutoff, suggesting strong behavioral responses to the tax kink. We develop a theoretical framework in which taxes are on owners and depend on the size of the housing unit. This framework allows for passing forward some of the tax burden to renters via higher rents. Moreover, it allows for tax-induced changes in the number of properties around the kink. Using a unique administrative dataset on housing transactions in Tehran, we structurally estimate the price elasticities of housing size supply and demand simultaneously.