

# ALEJANDRA LÓPEZ ESPINO

axl5463@psu.edu <https://alopezespino.github.io>

Authorized to work for any US employer

## EDUCATION

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### **The Pennsylvania State University**

*August 2015- present*

Ph.D. Economics.

Primary fields: international trade, production networks.

Secondary fields: applied econometrics and computational economics.

Committee co-chairs: Jonathan Eaton and James Tybout.

### **Instituto Tecnológico Autónomo de México (ITAM)**

*January 2015*

Completed 66/78 credits toward an MA degree in Economic Theory.

### **Instituto Tecnológico Autónomo de México (ITAM)**

*December 2013*

BA. Economics — economic theory track.

## WORKING PAPERS

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### **Production Networks and Rules of Origin: moving from NAFTA to USMCA**

2023

*Job Market Paper*

- Free Trade Agreements (FTAs) give firms within the member countries duty-free access to each other's markets. But with a catch. Non-bloc workers and capitalists are the primary beneficiaries if these firms rely heavily on suppliers outside the bloc for their upstream inputs. So to limit this diversion of factor demand, FTAs include elaborate rules—known as Rules of Origin (RoOs)—that dictate how much of a product's value must be created within the bloc for it to be “in compliance,” i.e., enjoy duty-free access to member country markets.

Because value chains are often lengthy, it is difficult to discern which firms RoOs favor, which firms they penalize, and by how much. I use comprehensive value-added tax records from Mexico to shed new light on these issues. In particular, I study the effects of NAFTA and its replacement, the USMCA, on the Mexican automotive sector.

Four main findings emerge. First, Mexican auto sector value chains exhibit strong interconnectedness, with 30 percent of firms serving ten or more assemblers and contributing to a third of the transaction volume. Second, when the USMCA replaced NAFTA, car parts producers were the most affected group within the value chain. These firms experienced a threefold decrease in compliance rates compared to car assemblers. Third, however, the steep increase in Regional Content Requirement (RCR) was alleviated by a new “super-core roll-up” provision, which allowed some producers to round up their suppliers' domestic content to 100 percent. Finally, if the super-core roll-up provision had not been implemented, the fraction of Mexican parts producers qualifying for duty-free treatment within the bloc would have halved. Instead, the qualifying fraction dropped by only 14 percentage points.

### **Endogenous Production Networks**

2023

### **Upstream Effects of USMCA's Labor Provisions: Implications for Mexican Automobile Workers**

2022

*Joint work with Armella Mancellari*

## EXPERIENCE

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### **Economics Department**

Summer 2018, 2022

*Instructor*

*The Pennsylvania State University*

- Introduction to Econometrics, Statistical Foundations for Econometrics.

### **Economics Department**

Fall 2015- Spring 2022

*Teaching Assistant*

*The Pennsylvania State University*

- Undergrad-level courses on macroeconomics, microeconomics, and labor economics.
- Masters-level course on applied microeconometrics and dissertation essay writing.

<b>Economics Department</b> <i>Research Assistant</i>	June- December 2017 <i>The Pennsylvania State University</i>
<b>Dirección General, ProMéxico</b> <i>Consultant</i>	May- July 2015 <i>Secretaría de Economía</i>
<b>Centro de Investigación Económica</b> <i>Research Assistant</i>	August 2013- January 2015 <i>Instituto Tecnológico Autónomo de México (ITAM)</i>
<b>Unidad de Política de Ingresos Tributarios</b> <i>Research Assistant</i>	January-August 2013 <i>Secretaría de Hacienda y Crédito Público</i>
<b>Unidad de Planeación Económica de la Hacienda Pública</b> <i>Research Assistant</i>	September- December 2012 <i>Secretaría de Hacienda y Crédito Público</i>
<b>Centro de Investigación Económica</b> <i>Research Assistant</i>	January- August 2012 <i>Instituto Tecnológico Autónomo de México (ITAM)</i>

## GRANTS

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<b>The Pennsylvania State University</b> <i>Teaching Assistantship</i>	Fall 2015- Spring 2022
<b>Federal Reserve Bank of Chicago</b> <i>Dissertation Fellowship</i>	Summer 2021
<b>Mexican Central Bank</b> <i>Dissertation Internship</i>	Fall 2020

## PRESENTATIONS

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<b>The Pennsylvania State University</b> <i>Trade and Development Student Brownbag</i>	November, 2022
<b>Kiel Institute</b> <i>Trade Seminar</i>	December, 2021
<b>Hitotsubashi University</b> <i>Trade Seminar</i>	November, 2021
<b>Federal Reserve Bank of Chicago</b> <i>Dissertation Fellowship Seminar</i>	August, 2021
<b>Mexican Central Bank</b> <i>Programa de Investigación de Verano</i>	October, 2020
<b>The Pennsylvania State University</b> <i>IO Student Brownbag</i>	April, 2019

## TECHNICAL SKILLS

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<b>Languages</b>	Spanish (Native), English (Fluent), French (Fluent).
<b>Programming</b>	R, Python, Bash, SQL, Cypher, Mathematica, Matlab, Stata.
<b>Graph analysis</b>	graph-tool, neo4j, NetworkX, iGraph, Cytoscape.
<b>HPC tools</b>	Unix/Linux package compilation (C/C++), virtual environments, job scheduling (MOAB, SLURM), large scale processing (Spark, Arrow), parallel processing (R, python, Matlab).
<b>Other</b>	ArcGIS, Git, Hugo, LaTeX, Vim, Zotero.

## PERSONAL

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**Citizenship** Mexico (US Permanent Resident)

**Pronouns** she/her/hers

## REFERENCES

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**Professor Jonathan Eaton** [jxe22@psu.edu](mailto:jxe22@psu.edu)

**Professor James Tybout** [jxt32@psu.edu](mailto:jxt32@psu.edu)

**Professor Fernando Parro** [fxp5102@psu.edu](mailto:fxp5102@psu.edu)

**Professor Marc Henry** [marc.henry@psu.edu](mailto:marc.henry@psu.edu)