

ALEJANDRA LÓPEZ ESPINO

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

Authorized to work for any US employer

EDUCATION

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

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

Economics Department

August 2025-present

Visiting Assistant Professor

Purdue University

Economics Department

Summer 2018, 2022

Instructor

The Pennsylvania State University

- Introduction to Econometrics, Statistical Foundations for Econometrics.

Economics Department

Teaching Assistant

Fall 2015- Spring 2022

The Pennsylvania State University

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

Economics Department

Research Assistant

June- December 2017

The Pennsylvania State University

Dirección General, ProMéxico

Consultant

May- July 2015

Secretaría de Economía

Centro de Investigación Económica

Research Assistant

August 2013- January 2015

Instituto Tecnológico Autónomo de México (ITAM)

Unidad de Política de Ingresos Tributarios

Research Assistant

January-August 2013

Secretaría de Hacienda y Crédito Público

Unidad de Planeación Económica de la Hacienda Pública

Research Assistant

September- December 2012

Secretaría de Hacienda y Crédito Público

Centro de Investigación Económica

Research Assistant

January- August 2012

Instituto Tecnológico Autónomo de México (ITAM)

GRANTS

The Pennsylvania State University

Teaching Assistantship

Fall 2015- Spring 2022

Federal Reserve Bank of Chicago

Dissertation Fellowship

Summer 2021

Mexican Central Bank

Dissertation Internship

Fall 2020

PRESENTATIONS

Purdue University

EIIT Conference

October, 2024

University of Würzburg

Trade Seminar

June, 2024

Tübingen University

Global Economics Networks Workshop

June, 2024

Clemson University

Trade Seminar

February, 2024

Banco de Mexico

Trade Seminar

February, 2024

Kiel Institute

Trade Seminar

December, 2021

Hitotsubashi University

Trade Seminar

November, 2021

Federal Reserve Bank of Chicago

Dissertation Fellowship Seminar

August, 2021

Mexican Central Bank

Programa de Investigación de Verano

October, 2020

TECHNICAL SKILLS

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

PERSONAL

Citizenship	Mexico (US Permanent Resident)
Pronouns	she/her/hers

DISSERTATION COMMITTEE

Professor Jonathan Eaton

Professor James Tybout

Professor Fernando Parro

Professor Marc Henry

Professor Stephen Yeaple

Professor Reka Albert