ALEJANDRA LÓPEZ ESPINO

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Citizenship: Mexico, US permanent resident.

EDUCATION

The Pennsylvania State University *August 2015- present*
Ph.D. Economics.
Primary fields: international trade, production networks.
Secondary fields: applied econometrics and computational economics.

Instituto Tecnológico Autónomo de México (ITAM) *January 2015*
Completed 66/78 credits toward an M.A. degree in Economic Theory.

Instituto Tecnológico Autónomo de México (ITAM) *December 2013*
B.A. Economics — economic theory track.

WORKING PAPERS

Production Networks and Rules of Origin: moving from NAFTA to USMCA 2023
Job Market Paper

· Rules of Origin (RoOs) are a prevalent component of Free Trade Agreements (FTAs), serving as prerequisites that firms in member countries must fulfill to qualify for tariff reductions on their intra-regional exports. I focus on the automotive sector, where Regional Content Requirements (RCRs) increased on average by 16 p.p. relative to NAFTA's average of 53 %. Leveraging a new dataset on Mexican firm-to-firm trade, I developed an origin calculator to show three main findings. Firstly, the Mexican value chain exhibits strong interconnectedness, with 30 % of firms serving 10 or more assemblers and contributing to a third of the transaction volume. Secondly, car part producers stand out as the most affected group within the value chain, experiencing a threefold decrease in compliance rates compared to car assemblers. Thirdly, the steep increase in RCRs is ameliorated by the roll-up provision, particularly in the realm of super-core parts and components—a provision that has recently been the subject of dispute among the FTA partners. Lastly, had the USMCA's dispute settlement panel ruled in favor of the US interpretation, the compliance rate would have halved, in contrast to the estimated 18 % decrease when the super-core roll-up is allowed.

Upstream Effects of USMCA's Labor Provisions: Implications for Mexican Automobile Workers 2022
Joint work with Armella Mancellari

· The USMCA requires that 40 percent of automobile value content uses labor that is paid at least $16 per hour, five times Mexico's current average hourly wage in the sector. Through the lens of a network model, we examine three major potential margins of adjustment for upstream automobile suppliers in Mexico. First, some firms may move towards greater subcontracting to reduce the costs of directly employed labor. Second, we may observe firms substituting towards capital and away from low-skill labor. And finally, firms may choose to source inputs from outside the USMCA trade zone altogether. We study the local welfare effects on workers in Mexico's automobile industry caused by these changes.

EXPERIENCE

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.

Economics Department June- December 2017
Research Assistant *The Pennsylvania State University*

Dirección General, ProMéxico May- July 2015
Consultant *Secretaría de Economía*

Centro de Investigación Económica August 2013- January 2015
Research Assistant *Instituto Tecnológico Autónomo de México (ITAM)*

Unidad de Política de Ingresos Tributarios January-August 2013
Research Assistant *Secretaría de Hacienda y Crédito Público*

Unidad de Planeación Económica de la Hacienda Pública September- December 2012
Research Assistant *Secretaría de Hacienda y Crédito Público*

Centro de Investigación Económica January- August 2012
Research Assistant *Instituto Tecnológico Autónomo de México (ITAM)*

GRANTS

The Pennsylvania State University Fall 2015- Spring 2022
Teaching Assistantship

Federal Reserve Bank of Chicago Summer 2021
Dissertation Fellowship

Mexican Central Bank Fall 2020
Dissertation Internship

PRESENTATIONS

The Pennsylvania State University November, 2022
Trade and Development Student Brownbag

Kiel Institute December, 2021
Trade Seminar

Hitotsubashi University November, 2021
Trade Seminar

Federal Reserve Bank of Chicago August, 2021
Dissertation Fellowship Seminar

Mexican Central Bank October, 2020
Programa de Investigación de Verano

The Pennsylvania State University April, 2019
IO Student Brownbag

TECHNICAL SKILLS

Languages	Spanish (native), English (Fluent), French (CEFR level C1).
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.