April 2025

NORTH AMERICAN TRADE INTEGRATION AT RISK: MEXICO'S SECTORAL WORKFORCE EXPOSURE TO U.S. TARIFFS

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ABOUT THIS SERIES

This report is part of a three-part series analyzing the labor market consequences of proposed U.S. tariffs on North American trade. Each report focuses on one member of the USMCA region, the United States, Mexico, and Canada, and assesses how disruptions to deeply integrated cross-border supply chains could affect employment across key sectors.

The series applies a common analytical frame, trade-linked employment exposure modeling, to evaluate the number of jobs in manufacturing, agriculture, and mining that depend on North American trade flows. While each national report is tailored to the available data and sectoral structures of its economy, all share the objective of providing actionable insights for policymakers, business leaders, and labor market institutions navigating the risks of tariff escalation and regional fragmentation.

This second volume focuses on Mexico, a country whose export-driven economy and specialized industrial base make it particularly vulnerable to changes in U.S. trade policy. The final volume, centered on Canada, will complete the trilateral view of North America's economic interdependence and shared exposure.

EXECUTIVE SUMMARY

The proposed imposition of broad U.S. tariffs on Mexican exports, 25% on most goods, threatens to disrupt one of the world's most deeply integrated trade relationships. This analysis examines the fifteen Mexican states most exposed to North American trade disruption, including industrial powerhouses, agricultural leaders, and energy-rich regions. The findings reveal that over 4.1 million Mexican jobs across these states face potential exposure, with the manufacturing sector alone accounting for nearly 3 million of those jobs.

These states, ranging from Baja California and Nuevo León to Guanajuato and Chihuahua, represent the epicenter of Mexico's economic integration with the U.S. and Canada. Their export intensity, cross-border supply chain participation, and specialized workforce profiles make them especially vulnerable to trade shocks.

Key Findings:

Employment Exposure:

- Manufacturing shows the highest vulnerability, with approx. 2.6 million jobs are at risk.
- Agriculture and mining sectors contribute an additional 1.5 million potentially exposed jobs.
- Combined, this represents a total exposure of more than 4.1 million jobs tied to North American trade.

Regional Variations:

- Jalisco registers the highest exposure, with 442,271 jobs at risk, driven by advanced manufacturing and agricultural exports.
- The automotive and industrial corridor stretching through Chihuahua, Coahuila, and Nuevo Leon also shows significant vulnerability:
  - Chihuahua: Over 370,000 jobs exposed, with both manufacturing and agriculture showing trade dependency rates above 85%.
  - Nuevo Leon: Approximately 375,000 jobs are at risk, with strong integration into North American supply chains.
  - Coahuila: About 255,000 jobs face exposure, reflecting deep ties to the binational automotive ecosystem.
- While more diversified, states like Estado de Mexico still show significant absolute employment exposure due to their sizable workforces and global export reach.
- In agriculture, states like Veracruz, Sonora, and Guanajuato show trade dependency above 85%, making them particularly sensitive to cross-border disruption.

Scenario Analysis: Under moderate disruption scenarios (25% reduction in trade):

- Manufacturing: Approx. 653,200 jobs potentially affected.
- Agriculture/Mining: Approx. 376,836 jobs at risk.
- Total impact: Over 1 million jobs could be affected under a moderate disruption scenario, assuming no substitution or adaptation.

Economic Context:

These potential impacts emerge against a backdrop of deep regional integration, with North American trade representing:

- Mexico sends over 80% of its exports to the U.S. and Canada.
- Cross-border trade exceeds $850 billion annually with the United States alone.
- Mexican industry is now deeply embedded in North American production networks, particularly in automotive, electronics, agriculture, and energy.

This report offers a data-driven view into how deeply Mexican employment is connected to continental commerce. While each state faces unique exposure patterns, the findings demonstrate that any significant disruption to North American trade will reverberate across both traditional border states and emerging inland production zones.

BACKGROUND

The Current Situation

In April 2025, the United States announced a sweeping escalation in its global trade policy, instituting reciprocal tariffs on over 90 nations and expanding its tariff regime to apply worldwide. These measures include a 25% tariff on most goods from Mexico and Canada, including a 10% tariff on Canadian energy products, continuing a pattern of differentiated treatment within North America. However, with the U.S. administration's declaration of "Liberation Day," the scope of trade disruption now extends beyond North America. It signals a broader shift away from the foundational principles of global and regional integration.

Despite a temporary 90-day pause on the most severe reciprocal tariffs, the baseline 10% tariff remains in place for nearly all trading partners, except for China, which now faces a 125% tariff. While Mexico and Canada are not currently subject to these *reciprocal* rates, they are included in the Section 232 steel, aluminum, and automotive tariffs now enforced under new Executive Orders. These changes threaten to upend trade relationships cultivated under USMCA and NAFTA, particularly for export-driven economies like Mexico.

North America as an Economic Powerhouse

The economic partnership between the United States, Mexico, and Canada is among the most successful examples of regional trade integration globally. The USMCA region, home to 501 million consumers, accounts for 30% of global GDP and facilitates $1.8 trillion in intra-regional trade annually, with an average of $3.5 million in trade crossing borders every minute. These figures underscore the extent to which North American economies have become interdependent and specialized through three decades of coordinated economic activity.

The original architects of NAFTA envisioned a competitive trading bloc that could rival China and the EU by combining the capital and technology of the United States, the natural resources of Canada, and the manufacturing and labor capabilities of Mexico. Since NAFTA's implementation in 1994:

- U.S.-Mexico trade has grown from $100 billion to nearly $840 billion annually.
- U.S.-Canada trade has grown from $242 billion to $800 billion, reflecting sustained integration.

This success is rooted in **geographic proximity, complementary specialization,** and **production networks that cross borders multiple times**, creating a powerful economic engine.

Bloc	Consumers (Millions)	Global GDP Share
North America (USMCA)	**501**	**30.0%**
European Union	450	13.4%
ASEAN	693	7.2%
CPTPP	523	9.8%
Mercosur	300	2.0%

North America's ability to translate population into economic power remains unmatched, mainly due to deeply interconnected supply chains and shared production ecosystems.

Purpose and Methodology

This report assesses how proposed tariffs, now extended globally, could impact employment across Mexico's most integrated and export-oriented states. It focuses specifically on 15 Mexican states whose economies are closely tied to North American trade through manufacturing, agriculture, and mining.

These states represent a diverse cross-section of Mexico's economic geography, from border hubs like Baja California and Nuevo León to central manufacturing clusters like Guanajuato and Puebla and agricultural strongholds like Veracruz and Sonora.

By combining state-level employment data with national export shares by sector, this study estimates:

- The number of jobs exposed to North American export flows, and
- The potential employment impacts under mild, moderate, and severe trade disruption scenarios.

The intent is to equip Mexican policymakers, regional economic planners, and North American stakeholders with a clear, data-driven understanding of where vulnerabilities lie and how these impacts could cascade through local economies.

With North American trade relationships under renewed strain, it becomes critical to understand how this interdependence translates into employment vulnerability across Mexico. The following analysis begins by quantifying the number of jobs in key sectors directly tied to exports to the United States and Canada. This baseline establishes the foundation for understanding which states and industries are most exposed and, thus, most need attention in the face of growing trade uncertainty.

ANALYSIS 1: EMPLOYMENT EXPOSURE TO NORTH AMERICAN TRADE

Purpose

This analysis estimates the number of jobs across Mexico's 15 most trade-dependent states that are currently exposed to North American trade flows. These are not predictions of job loss but rather a measure of how deeply local employment is tied to the export economy, particularly to the United States and Canada, Mexico's largest trading partners under the USMCA framework.

The goal is to provide a clear, sector-by-sector snapshot of where Mexican labor markets are most vulnerable to trade disruption and where targeted policy support may be required in the event of escalating tariffs or regional decoupling.

The Trade-Linked Employment Exposure Model

We base our approach on a method commonly used in global labor and trade research: the trade-linked employment exposure model. This model estimates how many jobs in a given sector rely on exports to a specific region or set of countries. Versions of this model have been used by the World Bank (2020), the National Bureau of Economic Research (NBER) (2025), and the Institute for Research on Public Policy (IRPP) (2023) to assess exposure to trade shocks, particularly in manufacturing and agriculture-heavy economies.

In Mexico's case, this model is particularly appropriate because the national economy and many regional labor markets are highly concentrated in export-oriented activities, especially in the U.S. and Canada.

FIVE-STEP METHODOLOGY

1. Sector Selection and Data Aggregation

We focus on three key sectors that are both major export generators and significant employers across Mexican states:

- Manufacturing (SCIAN 311–339)
- Agriculture and Farm (SCIAN 111, 112, 114)
- Mining and Energy (SCIAN 211, 212)

These sectors were chosen because they are widely recognized as central to Mexico's export competitiveness and because they have relatively reliable employment and trade data available through INEGI.

2. Calculating the North American Export Share

Due to the absence of detailed sector-by-country export data at the state level, we applied national-level North American export shares for each sector uniformly across all 15 states:

- Manufacturing: 89.0%
- Agriculture: 87.7%
- Mining: 16.1%

Although not ideal, this technique is widely accepted when geographic disaggregation is limited. It preserves analytical integrity while offering a credible approximation of exposure levels, especially in a country like Mexico, where sectoral trade patterns are fairly consistent due to specialization.

3. Employment Data and the EMIM–ENOE Distinction

We sourced employment data from two of INEGI's major labor datasets:

- We used EMIM (Encuesta Mensual de la Industria Manufacturera) for manufacturing. This establishment-based dataset provides firm-level employment figures, which is ideal for assessing formal industrial jobs directly tied to production and exports.
- We used ENOE (Encuesta Nacional de Ocupación y Empleo) for agriculture and mining. Although broader and more inclusive, ENOE captures informal, seasonal, and rural labor often underrepresented in establishment surveys. These characteristics are especially relevant for sectors like agriculture, where informal employment is widespread and vital to production.

4. Estimating Jobs at Risk

We applied the following formula to each sector in each state:
Jobs at Risk = Sectoral Employment × National Export Share

This calculation gives us a realistic upper-bound estimate of the number of jobs that depend on exports to the United States and Canada. These "at-risk" jobs are not guaranteed losses, but they reflect vulnerability to changing trade conditions.

In practice, this exposure might manifest as:

- Slower hiring
- Reduced hours or shifts
- Weakened regional wages
- Or, in worst cases, facility closures or supply chain relocation

5. Exposure Classification by State

To contextualize exposure across Mexico's regions, we classify each state into one of three vulnerability bands:

- High Exposure: More than 400,000 jobs at risk
- Moderate Exposure: Between 200,000 and 400,000 jobs at risk
- Lower Exposure: Below 200,000 jobs

This allows us to identify not only where jobs are most at stake in absolute terms but also where economies are structurally overdependent on cross-border flows.

Focus on Export Data

The study's exclusive focus on export data is driven by both methodological and economic considerations:

- Mexico is an export-driven economy. Exports account for a significant share of GDP, and most employment gains from trade are tied to outbound production, not imports.
- Import data by state and sector are not reliably available. Even where available, most imports are intermediate goods, which do not map cleanly to direct employment figures.
- Exports are the clearest link between external demand and domestic jobs. They signal productive activity, local sourcing, logistics intensity, and foreign investment dependencies-especially in border regions and industrial corridors.

Data Sources

The data collected for this analysis originates from public government sources:

- Trade Data: INEGI's Monthly Merchandise Trade Reports (2023)
- Employment Data:
  - EMIM: For manufacturing (firm-level)
  - ENOE: For agriculture and mining (household survey)
- Sector Classification: SCIAN 2018
- Export Shares by Sector: INEGI, validated against UN Comtrade datasets

Citations

- World Bank (2020). Leveraging Trade for More and Better Jobs.
- NBER Working Paper No. 33481 (2025). Firm Trade Exposure, Labor Market Competition, and the Worker.
- Institute for Research on Public Policy (2023). Measuring Community Workforce Exposure to U.S. Exports.

STATE EXPORT TRADE EXPOSURE ANALYSIS

HIGH EXPOSURE

Jalisco:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	258,762	15,623	238,948
Exports to U.S.	$1,216,183,768	$2,933,377	$24,869,681,448
Exports to Canada	$33,640,290	$25,644	$935,844,762
Sum of US+CA Exports	$1,249,824,058	$2,959,020	$25,805,526,210
Global State Exports	$1,424,732,000	$18,375,000	$28,981,846,000
NA Export Share	87.70%	16.1%	89.00%
Jobs at Risk	226,995	2,516	212,760

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the most significant exposure, with 212,760 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 229,511 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 442,271 jobs demonstrates Jalisco's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

HIGH EXPOSURE

Estado de Mexico:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	152,995	34,933	336,148
Exports to U.S.	$90,764,009	-	$19,479,800,229
Exports to Canada	$2,510,581	-	$733,023,825
Sum of US+CA Exports	$93,274,590	-	$20,212,824,054
Global State Exports	$106,328,000	-	$22,700,756,000
NA Export Share	87.70%	-	89.00%
Jobs at Risk	134,212	N/E	299,307

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the largest exposure, with 299,307 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 134,212 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 433,520 jobs demonstrates Estado de México's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

HIGH EXPOSURE

Baja California:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	72,218	4,712	389,134
Exports to U.S.	$1,213,984,835	-	$46,459,388,712
Exports to Canada	$33,579,466	-	$1,748,264,274
Sum of US+CA Exports	$1,247,564,301	-	$48,207,652,986
Global State Exports	$1,422,156,000	-	$54,141,379,000
NA Export Share	87.70%	-	89.00%
Jobs at Risk	63,352	N/E	346,486

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the largest exposure, with 346,486 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 66,651 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 413,137 jobs demonstrates Baja California's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

MODERATE EXPOSURE

Nuevo Leon:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	24,607	14,574	392,066
Exports to U.S.	$53,252,407	$10,716,444	$49,054,206,483
Exports to Canada	$1,472,990	$93,683	$1,845,907,126
Sum of US+CA Exports	$54,725,397	$10,810,127	$50,900,113,609
Global State Exports	$62,384,000	$67,129,000	$57,165,246,000
NA Export Share	87.70%	16.1%	89.00%
Jobs at Risk	21,586	2,347	349,097

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the most significant exposure, with 349,097 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 23,933 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 373,030 jobs demonstrates Nuevo León's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

MODERATE EXPOSURE

Guanajuato:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	159,447	10,256	261,469
Exports to U.S.	$733,617,975	-	$29,955,947,054
Exports to Canada	$20,292,263	-	$1,127,240,661
Sum of US+CA Exports	$753,910,238	-	$31,083,187,715
Global State Exports	$859,417,000	-	$34,909,118,000
NA Export Share	87.70%	-	89.00%
Jobs at Risk	139,872	N/E	232,813

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the largest exposure, with 232,813 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Farming show notable vulnerability, with 139,872 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 372,685 jobs demonstrates Guanajuato's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

MODERATE EXPOSURE

Chihuahua:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	76,873	21,940	336,806
Exports to U.S.	$1,059,223,869	$96,731,000	$62,991,117,187
Exports to Canada	$29,298,696	$845,821	$2,370,352,319
Sum of US+CA Exports	$1,088,522,565	$97,576,821	$65,361,469,506
Global State Exports	$1,240,857,000	$607,233,000	$73,406,604,000
NA Export Share	87.70%	16.1%	89.00%
Jobs at Risk	67,436	3,533	299,893

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the largest exposure, with 299,893 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 70,969 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 370,862 jobs demonstrates Chihuahua's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

MODERATE EXPOSURE

Veracruz:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	357,848	27,628	55,794
Exports to U.S.	$471,889,532	$153,400,845	$4,409,117,097
Exports to Canada	$13,052,715	$1,341,027	$165,914,837
Sum of US+CA Exports	$484,942,247	$154,741,872	$4,575,031,934
Global State Exports	$552,808,000	$960,920,000	$5,138,158,000
NA Export Share	87.70%	16.1%	89.00%
Jobs at Risk	313,917	4,449	49,679

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the most significant exposure, with 49,679 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 318,366 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 368,045 jobs demonstrates Veracruz's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

MODERATE EXPOSURE

Puebla:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	239,117	6,626	106,517
Exports to U.S.	$284,167,627	-	$15,920,427,221
Exports to Canada	$7,860,228	-	$599,084,812
Sum of US+CA Exports	$292,027,855	-	$16,519,512,033
Global State Exports	$332,896,000	-	$18,552,846,000
NA Export Share	87.70%	-	89.00%
Jobs at Risk	209,762	N/E	94,843

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the largest exposure, with 94,843 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Farming show notable vulnerability, with 209,762 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 304,605 jobs demonstrates Puebla's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

MODERATE EXPOSURE

Coahuila:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	35,014	12,727	249,362
Exports to U.S.	$145,443,673	$144,830,276	$57,074,797,740
Exports to Canada	$4,023,049	$1,266,103	$ 2,147,721,540
Sum of US+CA Exports	$149,466,722	$146,096,379	$ 59,222,519,280
Global State Exports	$170,384,000	$907,233,000	$66,512,030,000
NA Export Share	87.70%	16.1%	89.00%
Jobs at Risk	30,715	2,049	222,033

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the largest exposure, with 222,033 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 32,765 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 254,798 jobs demonstrates Coahuila's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

MODERATE EXPOSURE

Tamaulipas:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	36,431	14,350	204,239
Exports to U.S.	$445,379,421	$20,023,590	$31,111,276,982
Exports to Canada	$12,319,432	$175,046	$1,170,715,663
Sum of US+CA Exports	$457,698,853	$20,198,636	$32,281,992,645
Global State Exports	$521,752,000	$125,430,000	$36,255,480,000
NA Export Share	87.70%	16.1%	89.00%
Jobs at Risk	31,959	2,311	181,855

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the largest exposure, with 181,855 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 34,269 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 216,124 jobs demonstrates Tamaulipas's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

LOWER EXPOSURE

San Luis Potosi:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	83,326	8,839	118,932
Exports to U.S.	$136,930,492	$3,680,330	$19,865,126,164
Exports to Canada	$3,787,570	$32,173	$747,523,619
Sum of US+CA Exports	$140,718,062	$3,712,504	$20,612,649,783
Global State Exports	$160,411,000	$23,054,000	$23,149,795,000
NA Export Share	87.70%	16.1%	89.00%
Jobs at Risk	73,096	1,423	105,897

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the most significant exposure, with 105,897 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 74,520 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 180,417 jobs demonstrates San Luis Potosí's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

LOWER EXPOSURE

Sonora:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	90,332	28,286	106,046
Exports to U.S.	$2,396,148,319	$479,789,031	$19,463,769,832
Exports to Canada	$66,278,737	$4,194,306	$732,420,602
Sum of US+CA Exports	$2,462,427,056	$483,983,337	$20,196,190,434
Global State Exports	$2,807,034,000	$3,005,452,000	$22,682,075,000
NA Export Share	87.70%	16.1%	89.00%
Jobs at Risk	79,242	4,555	94,424

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the largest exposure, with 94,424 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 83,797 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 178,221 jobs demonstrates Sonora's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

LOWER EXPOSURE

Queretaro:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	29,510	8,074	144,005
Exports to U.S.	$176,034,101	-	$14,885,679,248
Exports to Canada	$4,869,197	-	$560,147,302
Sum of US+CA Exports	$180,903,298	-	$15,445,826,550
Global State Exports	$206,220,000	-	$17,347,004,000
NA Export Share	87.70%	-	89.00%
Jobs at Risk	25,887	N/E	128,223

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the largest exposure, with 128,223 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 25,887 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 154,110 jobs demonstrates Querétaro's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

LOWER EXPOSURE

Durango:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	56,325	14,235	32,855
Exports to U.S.	$172,882,525	$60,614,342	$1,966,937,785
Exports to Canada	$4,782,023	$529,889	$74,015,762
Sum of US+CA Exports	$177,664,548	$61,144,342	$2,040,953,547
Global State Exports	$202,528,000	$379,695,000	$2,292,168,000
NA Export Share	87.70%	16.1%	89.00%
Jobs at Risk	49,410	2,292	29,254

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents a large exposure, with 29,254 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 51,703 jobs at risk, driven by the sectors' size and export orientation.
- Combined exposure of over 80,957 jobs demonstrates Durango's importance within Mexico's continental trade network.

STATE EXPORT TRADE EXPOSURE ANALYSIS

LOWER EXPOSURE

Aguascalientes:

Item	Agriculture & Farm	Mining	Manufacturing
Sector Employment *	16,444	2,865	141,723
Exports to U.S.	$88,089,608	-	$12,006,178,397
Exports to Canada	$2,436,605	-	$451,791,841
Sum of US+CA Exports	$90,526,213	-	$12,457,970,238
Global State Exports	$103,195,000	-	$13,991,382,000
NA Export Share	87.70%	-	89.00%
Jobs at Risk	14,425	N/E	126,191

**Agriculture, Farm, and Mining employment data is sourced from INEGI's Encuesta Nacional de Ocupación y Empleo(ENOE). Manufacturing employment data is sourced from INEGI's Encuesta Mensual de la Industria Manufacturera (EMIM).*

Analysis

- Manufacturing represents the most significant exposure, with 126,191 jobs at risk due to the state's deep integration with North American supply chains.
- Agriculture and Mining show notable vulnerability, with 15,933 jobs at risk, driven by the sectors' size and export orientation.
- The combined exposure of over 142,124 jobs demonstrates Aguascalientes's importance within Mexico's continental trade network.

ANALYSIS 2: SCENARIO-BASED IMPACT ASSESSMENT

After establishing the baseline exposure of jobs to North American trade in our first analysis, we now examine how varying levels of disruption could impact employment across Mexico's most integrated states. While the previous analysis quantified the scale of jobs linked to cross-border trade, this second assessment recognizes that trade relationships rarely unravel overnight. Instead, they evolve, sometimes gradually, sometimes abruptly, in response to policy shocks and shifting market dynamics.

By modeling a range of disruption scenarios, we aim to capture the spectrum of possible outcomes, offering a more nuanced understanding of how regional labor markets might respond as firms and industries adapt to new trade realities.

Methodology and Rationale

While our first analysis estimates the number of jobs currently exposed to trade with the United States and Canada, this second analysis moves from exposure to potential disruption. Recognizing that global supply chains and regional commerce adjust gradually rather than collapse overnight, this section models a range of possible employment impacts under different trade disruption scenarios.

To do so, we adopt a scenario-based adaptation framework widely used in economic policy forecasting and supported by empirical literature on trade shock responses. Research from the World Bank and the OECD shows that the impact of trade barriers often depends on how long they persist, the sectoral structure of the economy, and the elasticity of substitution between international and domestic markets.

Scenario Design

Each scenario reflects a different level of disruption in trade flows between Mexico and its North American partners. Rather than predicting precise job losses, these scenarios illustrate a spectrum of possible effects, offering policymakers a range of outcomes to anticipate and prepare for.

- Scenario A (Mild): 10% reduction in NA exports → Jobs at Risk × 10%
- Scenario B (Moderate): 25% reduction in NA exports → Jobs at Risk × 25%
- Scenario C (Severe): 40% reduction in NA exports → Jobs at Risk × 40%

Accounting for Elasticity and Adaptation

The scenario reductions (10%, 25%, and 40%) reflect varying degrees of trade disruption, but real-world impacts also depend on factors such as price elasticity, business cost-absorption strategies, and alternative sourcing options. Some companies might absorb tariff costs rather than pass them fully to consumers, while others might swiftly relocate supply chains. Consequently, the scenario results should be interpreted as potential ranges rather than definitive predictions of how many jobs would be affected.

Application to Mexican States

Using the 'Jobs at Risk' figures calculated in Analysis 1 for each sector in each of the fifteen states, we apply the disruption percentages to estimate how many jobs may be affected under each scenario. For example, if a state has 100,000 manufacturing jobs exposed to North American exports:

- Scenario A implies that ~10,000 jobs may be affected (e.g., reduced hours or delayed hiring).
- Scenario C implies up to ~40,000 jobs may be affected, possibly through layoffs or structural shifts.

Each state's vulnerability varies based on:

- Its employment intensity in export sectors,
- The export share of each sector to North America (uniform nationally),
- And the concentration of its economy in sectors like automotive, agriculture, and mining.

This three-tiered scenario framework helps identify regions and sectors needing rapid support under mild shocks or broader strategic planning if severe disruptions materialize.

Interpretation and Use

These figures are not predictions of job losses. Instead, they represent a spectrum of potential labor market effects that can emerge from trade shocks, especially under sudden tariff regimes or retaliatory measures. The outcomes could manifest as:

- Reduced hours or output,
- Slowed hiring,
- Workforce redeployment,
- Or, in extreme cases, plant closures or offshoring.

Real-world outcomes will depend on:

- Sector-specific elasticity (how easily goods can be redirected),
- Firm-level resilience (ability to absorb or pass on costs),
- Supply chain alternatives (presence of substitute markets or suppliers),
- And the policy response at national or state levels.

This methodology aligns with global best practices in scenario-based impact modeling. It is particularly relevant for countries like Mexico, which are highly export-dependent and embedded in regional value chains.

Supporting References

- World Bank (2020). Leveraging Trade for More and Better Jobs. worldbank.org
- OECD (2017). Employment Impacts of Global Value Chains. oecd.org
- Autor, Dorn, Hanson (2013). The China Shock: Labor Market Adjustment to Trade Disruption. NBER
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While scenario modeling gives us a macro-level view of potential impacts, understanding the localized implications of trade disruption requires a closer look at individual states. The following section provides state-by-state summaries highlighting projected job impacts across three core sectors. These interpretations help illustrate the varied ways Mexico's regional economies could be affected and where policy responses may need to be tailored.

SCENARIO-BASED IMPACT ASSESSMENT

AGUASCALIENTES

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	1,443 jobs	3,606 jobs	5,770 jobs
Manufacturing	89.0%	6,589 jobs	16,472 jobs	26,355 jobs
Oil & Mining	16.1%	0 jobs	0 jobs	0 jobs

Interpretation: Potential impacts range from 8,031 jobs under mild disruption to 32,125 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

BAJA CALIFORNIA

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	6,335 jobs	15,838 jobs	25,341 jobs
Manufacturing	89.0%	24,682 jobs	61,706 jobs	98,729 jobs
Oil & Mining	16.1%	0 jobs	0 jobs	0 jobs

Interpretation: Potential impacts range from 31,017 jobs under mild disruption to 124,070 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

CHIHUAHUA

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	6,744 jobs	16,859 jobs	26,974 jobs
Manufacturing	89.0%	29,989 jobs	74,973 jobs	119,957 jobs
Oil & Mining	16.1%	353 jobs	883 jobs	1,413 jobs

Interpretation Potential impacts range from 37,086 jobs under mild disruption to 148,345 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

SCENARIO-BASED IMPACT ASSESSMENT

COAHUILA

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	3,072 jobs	7,679 jobs	12,286 jobs
Manufacturing	89.0%	22,203 jobs	55,508 jobs	88,813 jobs
Oil & Mining	16.1%	205 jobs	512 jobs	820 jobs

Interpretation: Potential impacts range from 25,480 jobs under mild disruption to 101,919 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

DURANGO

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	4,941 jobs	12,353 jobs	19,764 jobs
Manufacturing	89.0%	2,925 jobs	7,314 jobs	11,702 jobs
Oil & Mining	16.1%	229 jobs	573 jobs	917 jobs

Interpretation Potential impacts range from 8,096 jobs under mild disruption to 32,383 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

GUANAJUATO

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	13,987 jobs	34,968 jobs	55,949 jobs
Manufacturing	89.0%	23,281 jobs	58,203 jobs	93,125 jobs
Oil & Mining	16.1%	0 jobs	0 jobs	0 jobs

Interpretation: Potential impacts range from 37,269 jobs under mild disruption to 149,074 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

SCENARIO-BASED IMPACT ASSESSMENT

JALISCO

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	22,699 jobs	56,749 jobs	90,798 jobs
Manufacturing	89.0%	21,276 jobs	53,190 jobs	85,104 jobs
Oil & Mining	16.1%	252 jobs	629 jobs	1,006 jobs

Interpretation: Potential impacts range from 44,227 jobs under mild disruption to 176,908 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

PUEBLA

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	20,976 jobs	52,440 jobs	83,905 jobs
Manufacturing	89.0%	9,484 jobs	23,711 jobs	37,937 jobs
Oil & Mining	16.1%	0 jobs	0 jobs	0 jobs

Interpretation: Potential impacts range from 30,460 jobs under mild disruption to 121,842 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

SONORA

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	7,924 jobs	19,811 jobs	31,697 jobs
Manufacturing	89.0%	9,442 jobs	23,606 jobs	37,769 jobs
Oil & Mining	16.1%	456 jobs	1,139 jobs	1,822 jobs

Interpretation: Potential impacts range from 17,822 jobs under mild disruption to 71,288 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

SCENARIO-BASED IMPACT ASSESSMENT

TAMAULIPAS

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	3,196 jobs	7,990 jobs	12,783 jobs
Manufacturing	89.0%	18,186 jobs	45,464 jobs	72,742 jobs
Oil & Mining	16.1%	231 jobs	578 jobs	924 jobs

Interpretation: Potential impacts range from 21,612 jobs under mild disruption to 86,450 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

VERACRUZ

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	31,392 jobs	78,479 jobs	125,567 jobs
Manufacturing	89.0%	4,968 jobs	12,420 jobs	19,872 jobs
Oil & Mining	16.1%	445 jobs	1,112 jobs	1,780 jobs

Interpretation: Potential impacts range from 36,804 jobs under mild disruption to 147,218 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

QUERETARO

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	2,589 jobs	6,472 jobs	10,355 jobs
Manufacturing	89.0%	12,822 jobs	32,056 jobs	51,289 jobs
Oil & Mining	16.1%	142 jobs	356 jobs	569 jobs

Interpretation: Potential impacts range from 15,411 jobs under mild disruption to 61,644 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

SCENARIO-BASED IMPACT ASSESSMENT

ESTADO DE MEXICO

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	13,421 jobs	33,553 jobs	53,685 jobs
Manufacturing	89.0%	29,931 jobs	74,827 jobs	119,723 jobs
Mining	16.1%	0 jobs	0 jobs	0 jobs

Interpretation: Potential impacts range from 43,352 jobs under mild disruption to 173,408 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

NUEVO LEON

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	2,159 jobs	5,397 jobs	8,634 jobs
Manufacturing	89.0%	34,910 jobs	87,274 jobs	139,639 jobs
Mining	16.1%	235 jobs	587 jobs	939 jobs

Interpretation: Potential impacts range from 37,303 jobs under mild disruption to 149,212 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

SAN LUIS POTOSI

Sector	NA Trade Share	Scenario A (10% drop)	Scenario B (25% drop)	Scenario C (40% drop)
Agriculture, Farm	87.7%	7,310 jobs	18,274 jobs	29,239 jobs
Manufacturing	89.0%	10,590 jobs	26,474 jobs	42,359 jobs
Mining	16.1%	0 jobs	0 jobs	0 jobs

Interpretation: Potential impacts range from 18,042 jobs under mild disruption to 72,167 jobs in severe scenarios, with manufacturing accounting for most of the exposure.

Together, these two analyses provide a comprehensive view of Mexico's employment exposure to regional trade. They show not only where current vulnerabilities exist but also how trade disruptions, if prolonged or expanded, could ripple through state economies. As trade uncertainty grows, these insights offer a roadmap for designing responsive labor policies, regional diversification strategies, and coordinated trade resilience planning.

THE CASCADING EFFECTS OF TRADE DISRUPTION AND POLICY IMPLICATIONS

Our analysis of Mexico's top 15 trade-exposed states confirms what was initially revealed in our earlier study focused on the United States: North American economic integration is no longer a policy aspiration but a structural reality embedded in regional labor markets, supply chains, and economic development strategies. Together, the findings from both reports underscore the scale of employment exposure on both sides of the border. A companion study examining Canada's employment dependence on North American trade is forthcoming, completing the trilateral picture.

Systemic Exposure Beyond Trade Volumes

This report finds that more than 4.1 million jobs across 15 Mexican states are directly tied to exports to the United States and Canada. Of these, nearly 3 million are in manufacturing, reflecting Mexico's deep specialization in automotive, electronics, and advanced manufacturing supply chains. An additional 1.5 million jobs in agriculture and mining highlight the broader reach of regional integration beyond industrial centers.

These figures move beyond traditional trade balance metrics. They illustrate how entire state economies have evolved around cross-border value chains, specialized production ecosystems, and sustained access to the U.S. and Canadian markets.

States like Estado de México, Nuevo León, Baja California, and Chihuahua are especially exposed, not only because of the scale of employment at risk but due to their structural dependence on exports of autos, electronics, and aerospace components. Others, such as Veracruz and Sonora, are heavily engaged in agricultural and extractive industries, sectors often excluded from public discourse on trade but critical to livelihoods across large swaths of rural Mexico.

A Continental Pattern of Vulnerability

As with the United States, Mexico's exposure is not limited to border states. The integration logic extends well into the interior, shaped by functional trade corridors rather than just geography. Mid-sized cities, regional manufacturing hubs, and rural agricultural zones are all embedded in the continent's supply chains.

This creates a systemic pattern of vulnerability: states that have become highly specialized in labor-intensive assembly, seasonal agriculture, or raw material extraction are now more sensitive to external shocks and policy volatility.

Scenario-Based Risk Cascades

As detailed in Analysis 2, disruptions to North American trade, even at moderate levels, have the potential to cascade rapidly across regions and sectors:

- **Scenario A :** 10%) may result in hiring freezes, lower output, or wage compression.
- **Scenario B :** (25%) could lead to localized slowdowns and delayed investment.
- **Scenario C :** (40%) risks triggering structural changes such as:
    - Downsizing or offshoring of production
    - Erosion of regional labor markets
    - Displacement of informal workers with limited protections

These scenarios are not predictions but rather risk thresholds to guide planning. They help identify when short-term disruptions risk tipping into long-term structural damage.

Sectoral and Geographic Fragility

The analysis also reveals differentiated risks across sectors and geographies:

- **Agricultural states** (e.g., Sonora, Veracruz, Guanajuato) may suffer localized shocks due to seasonality, perishability, and logistics constraints.
- **Manufacturing hubs** (e.g., Estado de México, Nuevo León) face high exposure due to their scale and dependence on integrated supply chains.
- **Mining regions,** while less exposed in relative terms, face potential volatility tied to commodities, investment confidence, and geopolitical conditions.

The Logic of Integration-And Its Consequences

Three decades after NAFTA, the effects of integration are deeply entrenched in both macroeconomic structures and daily operations. Mexico, the U.S., and Canada have built complementary production systems that depend on speed, specialization, and scale.

This success has elevated the region's global competitiveness, but it also means that disruptions to trade flows, border operations, or tariff regimes can generate asymmetric and cascading consequences. These consequences will not be evenly distributed but will hit hardest in communities where export activity anchors local employment and income.

FUTURE CONSIDERATIONS AND NEXT STEPS

Several additional dynamics will shape how trade shocks play out in the coming months and years:

- **Macroeconomic conditions**-including inflation, exchange rates, and commodity prices-may buffer or amplify the impacts of tariffs.
- **Supply chain reconfiguration**-whether through nearshoring, friendshoring, or reshoring-may reallocate exposure within and across states.
- **Labor market resilience** will depend heavily on public investment in workforce transition programs, infrastructure, and regional diversification.

While this report focuses on the state level, exposure within states varies widely. Future municipal or corridor-level research will be critical to identify highly vulnerable communities and deploy targeted policy responses.

Finally, the forthcoming Canada employment exposure analysis will complete the trilateral framework, offering policymakers and business leaders a full-spectrum view of North America's labor-market vulnerabilities and the collective stakes of disrupting the continent's integrated economy.

Note: Alternative Employment Estimate (ENOE-Based)

Considering ongoing data challenges and informal labor dynamics in Mexico's industrial economy, an alternate estimate using ENOE data suggests that while our primary analysis uses data from INEGI's Monthly Manufacturing Industry Survey (EMIM), which focuses on formal employment in registered manufacturing establishments, an alternative estimate using data from the National Survey of Occupation and Employment (ENOE) suggests higher levels of workforce exposure. ENOE captures both formal and informal workers and estimates that approximately 3.15 million people are employed in manufacturing across the 15 states included in this study.

If this broader employment base were used in our exposure model, the total number of Mexican jobs tied to North American trade would rise from 5.54 million to nearly 6.25 million, offering a more complete picture of workforce vulnerability-especially in regions with significant informal labor or subcontracted employment in export-driven industries.