



The Takeaway

Policy Briefs from the Mosbacher Institute for
Trade, Economics, and Public Policy

Why We Need the USMCA (the agreement formerly known as NAFTA)

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The North American Free Trade Agreement (NAFTA) fundamentally changed the economic relationship between US and Mexican workers. Prior to NAFTA, research suggests that Mexican workers were substitutes for US workers in manufacturing. In other words, they were directly competing for jobs. Now, research suggests that Mexican workers are best described as complements to US workers, and that North America is more accurately described as a single production unit where jobs grow (or shrink) on both sides of the border simultaneously.

The idea that the United States has been losing jobs to Mexico has appeared in popular discourse for more than 30 years—even before the North American Free Trade Agreement (NAFTA) went into effect in 1994. Indeed, some communities in the United States have been strongly and adversely affected by companies shifting



WHAT'S THE TAKEAWAY?

Rather than competing for jobs, US and Mexican workers are now complements in a single, well-integrated, production process.

Without NAFTA or USMCA, jobs would be threatened on both sides of the border.

Changes in USMCA that update the rules for e-commerce and intellectual property are important and valuable.

production to Mexico. Since NAFTA went into effect, all three countries have restructured production—painfully, at times—in a way that has resulted in very close integration. Much of the current debate comes down to the question of whether US and Mexican workers are substitutes (in the sense that they compete with each other for jobs) or complements (in the sense that they are working together as part of a single production process). This brief describes recent research that seeks to answer this question.

HOW MODERN PRODUCTS ARE MADE

Most manufactured goods are produced in a series of stages (raw materials, intermediate inputs, assembly into final goods). For much of the 19th and 20th centuries, different stages of production occurred relatively close to each other. Over the last 50 years, however, changes in communication and computing technology allowed the production stages to be broken apart and moved to the countries that can produce them at the lowest cost.¹

In this process, US workers with less education have born the majority of the costs. At the same time, however, the demand for more educated workers increased as the United States specialized in stages that required more education. The reverse occurred in Mexico. Over the last 30 years Mexican inequality has dropped as the demand for older, more educated workers fell and the demand for younger, less educated workers increased.²

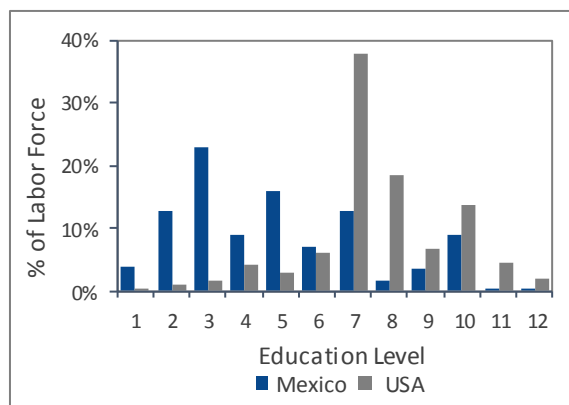
Mexico and the United States are natural partners in this new production style because Mexico has workers that are very

scarce in the United States. Figure 1 shows the distribution of education in Mexico and the United States the year that NAFTA went into effect (1994). Mexico’s workers were less educated than most of the US labor force. The differences in education levels created the opportunity for specialization.

NORTH AMERICAN TRADE

After NAFTA, trade between Mexico and the United States increased greatly, especially in parts.³ Much of Mexico’s rising exports to the United States included parts that were made in the United States but were assembled in Mexico. This production sharing allows North America to become more competitive with the rest of the world. As US workers make parts, and Mexican workers assemble them, the workers from the two

Figure 1: 1994 Education Level Distribution, Labor Forces that Complete Each Other



Source: Mexican data are from the 1994 Encuesta Nacional de Empleo Urbano. US data are from the 1994 Monthly Outgoing Rotation Groups of the Current Population Surveys, National Bureau of Economic Research.

Education levels: 1=Less than 1st grade; 2=1st-4th grade; 3=5th-6th grade; 4=7th-8th grade; 5=9th grade, 6=10th-12th grade (no diploma); 7=High School diploma or Equiv (GED); 8=Some College (no degree), 9=Associate Degree (occupational/vocational or academic); 10=Bachelor’s (ex:BA,AB,BS); 11=Master’s (ex:MA,MS,MEng,MEd,MSW); 12=Professional School Degree (ex:MD,DDS,DVM) or Doctorate (ex:PhD,EdD).

countries effectively work side-by-side in a single production process.

TESTING THE THEORY

But how accurate is this description of production? Don't US workers compete with Mexican workers for jobs? One way to evaluate these questions is to compare the changes in wages and employment in the two countries. The intuition is very simple. If the workers in the two countries compete with each other, rising wages in the United States will cause employers to hire more Mexican workers. That is, when US and Mexican workers compete with each other, rising US wages are positively correlated with Mexican employment. On the other hand, if the workers are complements, rising US wages will reduce the demand for both US and Mexican workers. That is, when US and Mexican workers are part of the same production process, we would see that US wages and Mexican employment are negatively correlated.

Using matched manufacturing employment and wage data, Robertson (2018)⁴ finds that when US production-worker wages rise, the demand for Mexican production and employment goes down. This result tells us that, rather than competing with each other, US and Mexican workers are complements.

These results hold up across a number of different specifications and datasets. For example, the same result emerges when we use different definitions of industries and include exchange rates. In other words, these results are quite robust.

One set of results is very different, however.

Ending NAFTA, or not approving the USMCA, is unlikely to reverse North American economic integration. It would, however, raise costs for those sharing production across borders.

When the same approach is applied to estimating the relationship between US and Mexican workers prior to NAFTA, the opposite results emerge. Prior to NAFTA, US and Mexican workers were substitutes. The change in results before and after NAFTA suggests that NAFTA may have contributed to the restructuring of North American production into an integrated economic region.

IMPLICATIONS FOR TODAY

So what effect would ending NAFTA or not approving the Trump administration's new treaty to replace NAFTA—the United States-Mexico-Canada Agreement (USMCA)—have on the structure of North American production? The NAFTA set up a common set of rules that facilitated the transformation of the three countries into a single production unit that probably could not be reversed without tremendous adjustment. Ending NAFTA, or not approving the USMCA, is unlikely to reverse North American economic integration. It would, however, raise costs for those sharing production across borders. Increasing these costs would make it harder

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to export our products to the rest of the world (potentially making our trade deficits worse). For those goods that are not exported, US consumers could expect rising prices. Therefore, both directly and indirectly US citizens would pay higher prices.

Relative to the original NAFTA, the changes in the USMCA are small but valuable. Updating the rules for e-commerce and intellectual property is an important change that will facilitate commerce. Other changes, however, like increasing the domestic content requirements in the automobile sector, may result in more jobs for US workers, but would come with higher prices and a less competitive industry. These changes will have to be carefully reviewed by the US Congress when it begins debate on ratifying the new agreement in

2019. What is critical, however, is that the United States Congress understand that, after nearly 25 years of NAFTA, we now live in a truly integrated North American economy.

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Notes:

¹ Hummels, D., Ishii, J., & Yi, K. (2001). The nature and growth of vertical specialization in world trade. *Journal of International Economics*, 54(1), 75-96. [https://doi.org/10.1016/S0022-1996\(00\)00093-3](https://doi.org/10.1016/S0022-1996(00)00093-3)

² Robertson, R. (2004). Relative prices and wage inequality: Evidence from Mexico. *Journal of International Economics* December, 64(2), 387-409. <https://doi.org/10.1016/j.jinteco.2003.06.003>

³ Sotomayor, M. (2016). Vertical specialization of production: Critical review and empirical evidence for the Mexican manufacturing industries 1994-2004. *International Journal of Business and Social Research*, 6(2), 11-28. <http://dx.doi.org/10.18533/ijbsr.v6i2.926>

⁴ Robertson, R. (2018). Are Mexican and U.S. workers complements or substitutes? Mimeo, Texas A&M.

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The Mosbacher Institute was founded in 2009 to honor Robert A. Mosbacher, Secretary of Commerce from 1989-1992 and key architect of the North American Free Trade Agreement. Through our three core programs—Integration of Global Markets, Energy in a Global Economy, and Governance and Public Services—our objective is to advance the design of policies for tomorrow's challenges.

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