Report on the U.S. Employment Impact of the United States-Mexico-Canada Agreement

December 11, 2019

About this Report

This report was prepared pursuant to section 105(d)(2) of the *Bipartisan Congressional Trade Priorities and Accountability Act of 2015 (*Pub. L. 114-26, title I), 19 USC 4204(d)(5), which mandates that:

> The President shall—
>
> (A) review the impact of future trade agreements on United States employment, including labor markets, modeled after Executive Order No.13141 (64 Fed. Reg. 63169) to the extent appropriate in establishing procedures and criteria; and
>
> (B) submit a report on such reviews to the Committee on Ways and Means of the House of Representatives and the Committee on Finance of the Senate at the time the President submits to Congress a copy of the final legal text of an agreement pursuant to section 106(a)(1)(E).

The President, by Executive Order 13701 (80 Fed. Reg. 43903 (July 23, 2015)), assigned the responsibility for conducting reviews under section 105(d)(2)(A) to the Secretary of Labor, who, in coordination with the U.S. Trade Representative, shall conduct the employment impact review through the interagency Trade Policy Staff Committee, and shall prepare the report. The President assigned the responsibility of performing the reporting function under section 105(d)(2)(B) to the U.S. Trade Representative.

Contents

I. Introduction and Executive Summary

The *Bipartisan Congressional Trade Priorities and Accountability Act of 2015* requires that the President submit a report to Congress detailing a prospective review of the likely effects of new trade agreements on employment and labor markets in the United States. This report discusses the findings of that review for the United States-Mexico-Canada Agreement (USMCA).

Section II details why the scope for the USMCA to affect U.S. employment and labor markets at an aggregate level is narrow. Among the factors discussed are:

- the USMCA will be a successor to the 1994 North American Free Trade Agreement (NAFTA). Most of the changes in U.S. employment attributable to a free trade agreement with Canada and Mexico have already occurred under the NAFTA. Any incremental changes to U.S. employment from the implementation of the USMCA are likely to be small relative to total employment in the United States.
- the dominant size of the United States in terms of its population and economy compared to Canada and Mexico;
- that any average wage advantage apparent for one of the three economies appears to be mostly offset by average labor productivity advantages in the other economies;
- the small share of U.S. imports from Mexico and Canada in all U.S. expenditure, and of U.S. exports to these partners compared to the value of all the United States produces;
- the fact that the USMCA, and its predecessor the NAFTA are factors among many that explain U.S. trade with Canada and Mexico, with the fact that they are geographic neighbors explaining why these countries have been, even before the NAFTA, and will continue to be, among the United States' top trading partners; and
- findings of limited aggregate effects on U.S. employment and wages of previous consequential trade policy changes, and the distributional nature of the changes that did occur, with job creation and wage growth for some workers tending to offset the effects of job destruction for others.

Section III discusses available quantitative simulations of the USMCA. These show very modest employment and wage impacts at the level of the U.S. economy. For example, the U.S. International Trade Commission (USITC, 2019) simulates three scenarios that vary assumptions used to quantify effects of commitments by each party to refrain from changing regulations covering international data transfer, cross-border services, and investment. Across scenarios, results range from small negative impacts (if commitments have no effect) to small positive impacts ("moderate" or "high effects") of the USMCA on employment, wage, and other outcomes. The middle-scenario analysis, which USITC designates as "main," suggests that a U.S. economy with the USMCA will contain around 176,000 more jobs, or equivalent to about a 0.12 percent increase in full-time equivalent employment compared to a U.S economy without the USMCA. The same scenario gives an average U.S. real wages increase of 0.27 percent on average, or around $150 per worker each year compared to a U.S. economy without the USMCA.

Section IV discusses two sets of provisions of the USMCA negotiated with employment or labor as explicit motivations. The first set of provisions relate to strengthening rules of origin for automobiles. A review of available literature assessing these provisions suggest an effect on U.S. employment that ranges from something small and negative to an increase of about 76,000 jobs. For the second set of provisions, pertaining to labor rights compliance and enforcement, the expected U.S. employment effects may be positive or negative on net, but are likely negligible in any case.

Section V recaps the findings of the review and report.

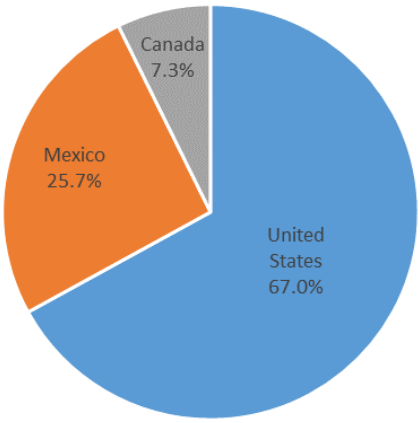
II. The Scope for the USMCA to Affect U.S. Output and Employment

This section examines economic context important for assessing the possible U.S. employment and labor market impact of the USMCA. First, it examines macroeconomic indicators to show the size of the partner economies and to get a sense of their productive capacity. Second, it assesses trade indicators to establish the importance of trade to the U.S. economy and, in turn, the importance of trade with Mexico and Canada to U.S. trade. Third, it discusses lessons from the literature about labor market impacts of past policy changes to illustrate the limited magnitude and offsetting effects that trade policy changes may be expected to have. Finally, it brings together information from the economic and trade contexts to illustrate the narrow scope for changes in trade with Mexico and Canada due to the USMCA to affect U.S. output and employment in the United States.

A. Macroeconomic Context

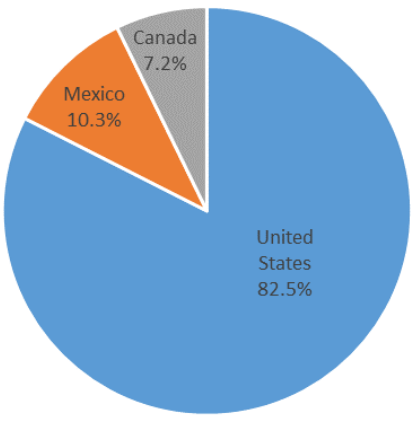
The U.S. Census Bureau estimates the population of the USMCA area to be 495 million people. Figure 1 shows that the United States is by far the most populous of the USMCA countries accounting for more than two-thirds of the USMCA area population. The U.S. population is 2.6 times that of Mexico and 9.2 times of that of Canada.

Figure 1
Population of the USMCA Countries, 2019
Total = 495 million



Source: U.S. Census Bureau and DOL calculations; Census data are projections for mid-year 2018, last updated in September 2018

Figure 2
GDP in the USMCA Area, 2017
Total = $23.6 trillion (current $)

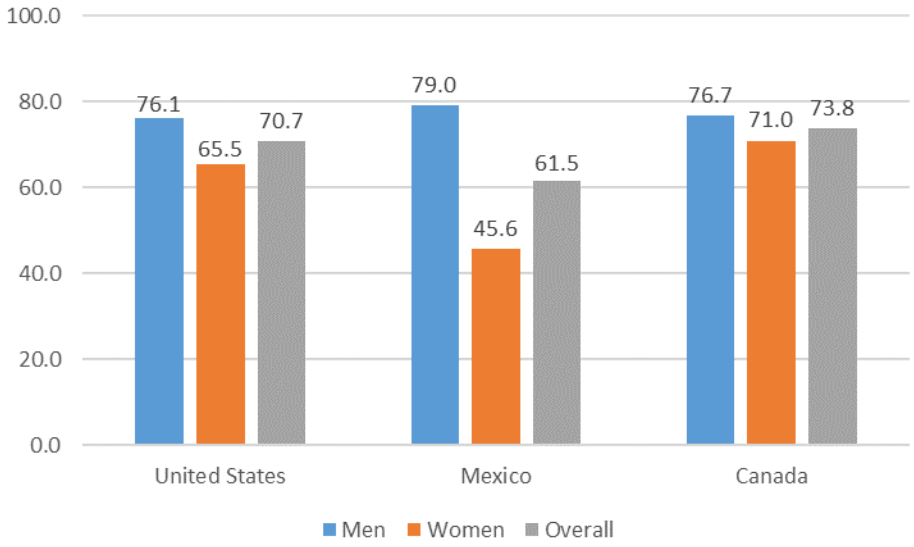


Source: OECD National Accounts Statistics and DOL calculations.

The United States is even more dominant in terms of its share of output produced (as measured by Gross Domestic Product or GDP) in the USMCA area. Figure 2 shows that the United States accounts for more than four-fifths of the USMCA area GDP.

The percentage of the working age population employed is an indicator of the utilization of human resources.[1] Figure 3 shows employment-to-population ratios for each of the USMCA countries in 2018. Overall or total rates are highest in Canada and lowest in Mexico. The overall Mexican rate masks the most striking difference by gender. Indeed, Mexico's rate for men is slightly higher than rates in the United States or Canada, but its rate for women is 20 percentage points or more lower than female rates in each country.

Figure 3
Employment-to-Population Ratios in the USMCA Countries, 2018



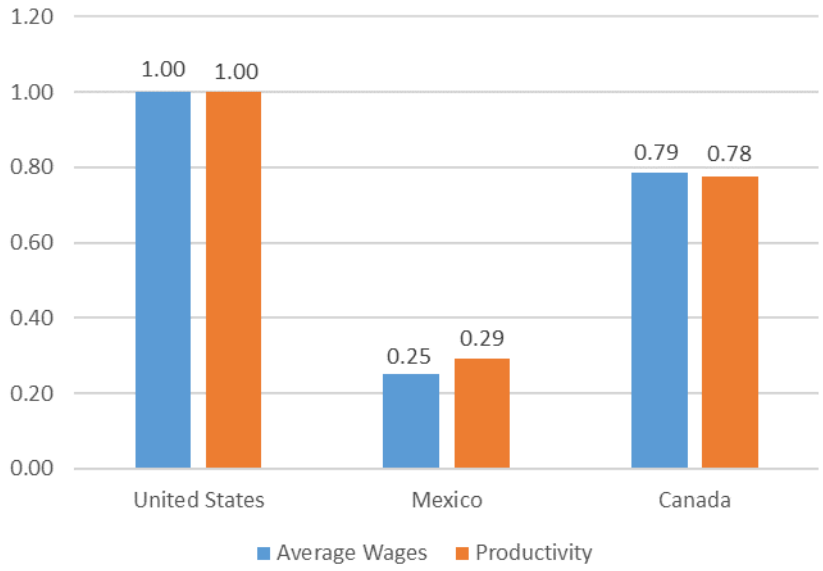
Source: OECD Labor Market Statistics
Note: Employment-to-Population Ratios are the ratio of the employed to the working-age population (ages 15-64).

Figure 4 shows average wages[2] and average labor productivity[3] in each of the USMCA countries as a ratio of average wages and average labor productivity in the United States in 2017. It shows clearly that between countries, average wage differences largely reflect average productivity differences. Among the three countries, both average wages and average productivity are highest in the United States, with Canada second (about 80 percent of the United States), and Mexico the last (less than 30 percent of the United States). On average, or at an economy-wide level, this suggests that any perceived advantage, say Mexico, may enjoy because of low average wages appears mostly offset by

[1] This statistic is constructed based on the international definition of employment established under the auspices of the International Labor Organization. According to their International Training Compendium on Labor Statistics, it includes people in paid employment, including apprentices and members of the armed forces; the self-employed; unpaid family members working for family enterprises; members of cooperatives or others paid in kind either by claiming the output of their work for barter; or by consuming the output of their own work.
[2] Average total compensation per full-time equivalent employee. See figure note.
[3] GDP per hour worked.

the average productivity advantages enjoyed by the other countries. However, individual sectors may show different results.

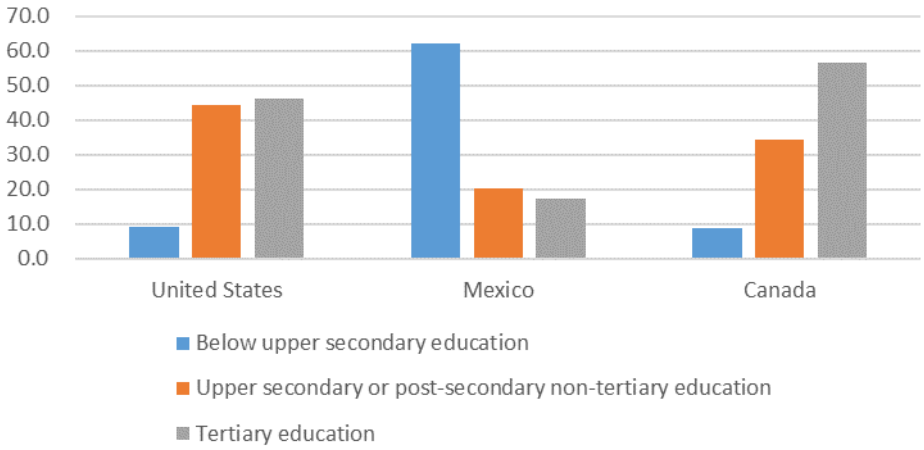
Figure 4
Average Wages and Productivity in the USMCA Countries, 2017
USMCA Partners Relative to the United States



Source: OECD Employment and Labor Market Statistics: Average Annual Wages, OECD Productivity Statistics, and DOL calculations.
Note: In the OECD database, average wages are obtained by dividing the national-account-based total compensation to employees by the average number of employees in the total economy, which is then multiplied by the ratio of the average usual weekly hours per full-time employee to the average usually weekly hours for all employees. This indicator is measured in USD constant prices using 2016 base year and Purchasing Power Parities (PPPs) for private consumption of the same year. Productivity is measured as GDP per hour worked. 2017 is the most recent year with data for all three countries. Productivity data for the United States and Mexico are OECD estimates. The chart presents ratios to U.S. figures.

A main driver of productivity and wage difference is skill levels, which can be proxied by education. Figure 5 shows highest-levels of educational attainment among the population aged 25 to 64 of each of the USMCA partners. More than 60 percent of Mexicans in this age group have completed less than an upper secondary education (i.e., less than a high school diploma). In comparison, more than 90 percent of Americans and Canadians have completed at least an upper secondary education.

Figure 5
Educational Attainment of Population, Aged 25-64

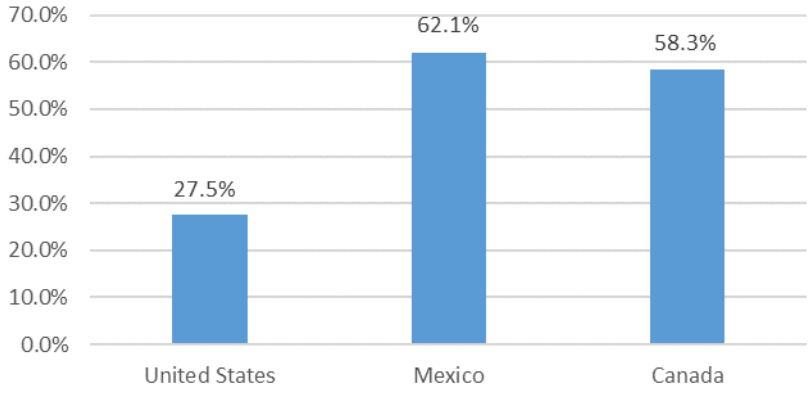


Source: OECD Education Statistics.
Note: Data show the share of the population aged 25 to 64 in each category for the most recent year available.

B. Trade Context

Trade with the world as a percent equivalent of GDP, or the trade-to-GDP ratio, shows the relative importance of trade to each of the USMCA economies. Figure 6 shows that trade is least important to the United States in terms of the value of trade relative to all it produces, accounting for only 27.5 percent-equivalent of GDP in 2017. Trade is more than twice as important to Mexico and Canada, accounting respectively for 62.1 and 58.3 percent-equivalent of their GDP.

Figure 6
Trade with the World as a Percent-Equivalent of GDP, 2017

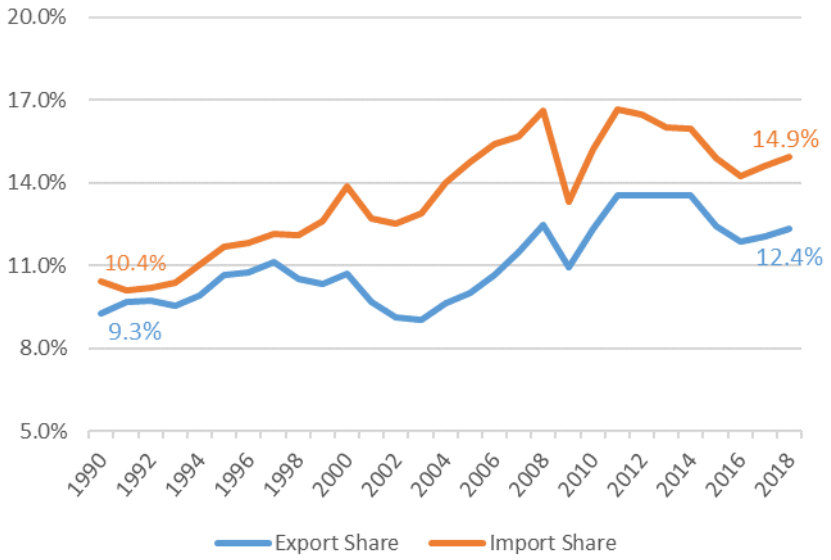


Source: OECD National Accounts Statistics: National Accounts at a Glance and DOL calculations.
Note: Trade is the sum of exports and imports of goods and services. Trade and GDP data for Mexico are labeled as provisional in the OECD database.

Figure 7 shows that trade accounts for a small, but growing, share of the U.S. economy. In 1990, exports generated a little less than 10 percent of U.S. GDP and imports represented just over 10 percent of domestic expenditures. By 2018, exports had grown to account for 12.4 percent of U.S.

GDP and imports as a share of domestic expenditures had grown to 14.9 percent.[4] Still, well over four-fifths of U.S. economic output and income are produced and consumed domestically.

Figure 7
U.S. Exports as a Share of GDP and
U.S. Imports as a Share of Domestic Expenditures



Source: BEA and DOL calculations. Exports of goods and services are shown as a percentage of GDP. Imports of goods and services are shown as a percentage of domestic expenditure (i.e., GDP minus net exports).

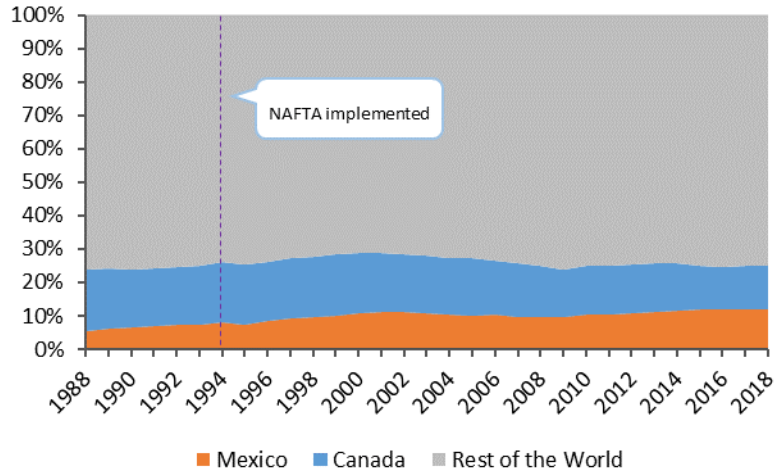
The United States has a long history of preferential trade arrangements with both Mexico and Canada. Most recently, the NAFTA entered into force on January 1, 1994.[5] Under the NAFTA, tariffs were eliminated progressively and all duties and quantitative restrictions on goods that meet the NAFTA's rules of origin requirements, with the exception of those on a limited number of agricultural products traded with Canada, were eliminated by 2008. As such, most U.S. trade with Mexico and Canada is duty-free. In spite of the NAFTA, trade with Mexico and Canada has accounted for a relatively steady share of U.S. trade over the past thirty years. Figure 8 shows that in 2017, the share of goods and services from Mexico and Canada in total U.S. trade (exports plus imports) was 25 percent, just one percentage point above their share in 1988. The share of trade with these partners peaked from 1999 to 2002 at 29 percent. Although the total trade share with Mexico and Canada together has not changed much, the share has shifted away from Canada and toward Mexico. In 1988, Mexico

[4] The larger spread between imports as a share of domestic expenditure and exports as a share of GDP in 2017 compared to 1990 reflects a larger trade deficit. However, the spread has not grown continuously. Imports as a share of domestic expenditure were nearly 50 percent higher than exports as share of GDP in 2004, the year of the peak in differences between the two ratios. In 2018, the import share was about one-fifth higher than the export share, the same as in 1999.

[5] Prior to the NAFTA, the United States – Canada Free Trade Agreement entered into force on January 1, 1989. Prior to the NAFTA, Mexico benefited from unilateral duty-free access or reduced rates of duty as a beneficiary developing country under the U.S. Generalized System of Preferences (GSP) program.

accounted for about one-third of U.S. trade with Mexico and Canada. In 2017, Mexico accounted for just under half of U.S. trade with Mexico and Canada.

Figure 8
Share of U.S Total Trade in Goods and Services with Mexico, Canada, and the Rest of the World, 1988 to 2017



Source: BEA and DOL calculations

Mexico and Canada are among the leading destinations for U.S. exports and sources for U.S. imports. This is consistent with economic theory (i.e., the gravity model of trade) which predicts that bilateral trade flows between two countries are determined both by size and proximity. Mexico and Canada are the two countries that share a border with the United States, so it is unsurprising that they are among our leading trading partners.

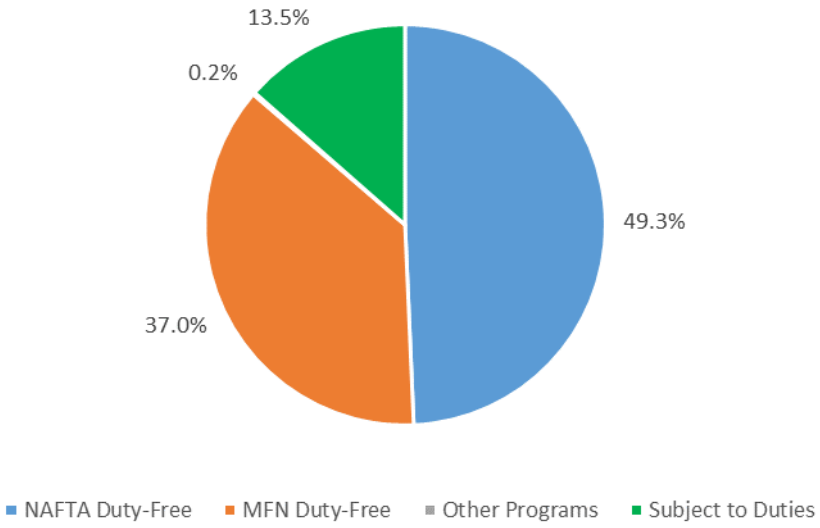
In 2018, 86.5 percent of U.S goods imports from Mexico and Canada entered the United States duty-free. Figure 9 shows U.S. goods imports from Mexico and Canada in 2018 by the import program that was claimed when they entered the United States.[6] It shows that nearly half of goods imports from Mexico and Canada entered duty-free under the provisions of the NAFTA. A further 37.0 percent entered duty-free without claiming a program (MFN duty-free).[7] Only 10.7 percent of imports were subject to duties, and these imports faced an average duty of just 2.3 percent. The total duties paid amounted to $2.1 billion. Nearly two-thirds of the goods subject to duties were mineral fuels and mineral oils that are eligible for NAFTA duty-free treatment and faced an average ad-valorem equivalent MFN duty of just 0.2 percent. It is possible that these items may have qualified for duty-free treatment under the NAFTA but it was not worth the administrative effort for the exporter to claim it since the tariffs were so low. Seventy percent of all duties for imports from Mexico and

[6] Trade in services are not subject to duties.

[7] Almost all nations are eligible for MFN ("most favored nation" or normal trade relations) duty treatment. MFN duty-free U.S. imports are calculated as the difference between the customs value of imports entered with "no program claimed" and the dutiable value of the imports entered with "no program claimed." A further 0.2 percent of goods imports from Mexico and Canada entered duty-free under other programs like the Agreement on Civil Aircraft ($1.1 billion) and the Agreement on Pharmaceuticals ($42.0 million).

Canada in 2018 ($1.5 billion) were on aluminum and steel products. These items were subject to duties due to Presidential Proclamations under Section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. 1862) effective March 15, 2018. On May 19, 2019, the President adjusted the Proclamations to remove the Section 232 tariffs for steel and aluminum imports from Mexico and Canada.[8]

Figure 9
U.S. Goods Imports from Mexico and Canada by Import Program, 2018



Source: USITC Dataweb and DOL calculations

The volume of trade between the United States, Mexico, and Canada has resulted in deeply integrated North American supply chains. Raw materials, intermediate goods, and services are traded across the region as they are transformed into final goods. The proliferation of global supply chains makes it difficult to measure accurately global trade patterns. Traditional trade statistics, like those presented in this paper, incorporate the value of trade intermediate inputs in the value of traded final goods. This likely overstates the true value produced by the country that exported the final good. There have been several recent efforts to decompose the value of traded goods into the contributions made by each country during the production process.

In 2018, the OECD released new data that allow for the analysis of bilateral trade for 2005 to 2015 by country source of value-added. These data show that U.S. value-added accounts for a substantial share of Mexican and Canadian exports. In 2015, U.S. value added accounted for 14.3 percent of Mexican exports to the world and 10.0 percent of Canadian exports to the world. U.S. value-added accounts for an even larger share of Mexican and Canadian exports to the United States. For example, using Mexican customs data, de Gortari (2019) finds that the U.S. value-added in U.S. imports of manufactured goods is 30 percent. Earlier research (Koopman, Powers, Wang, and Wei, 2011)

[8] For further information, see https://www.cbp.gov/trade/remedies/232-tariffs-aluminum-and-steel.

suggests that U.S. value added accounted for 39.8 percent of U.S. imports of final goods from Mexico and 24.8 percent of those from Canada.

C. Lessons from Previous Trade Policy Changes

In the years directly after the implementation of the NAFTA, there were many attempts to quantify its effects on U.S. employment and wages. Papers by Burfisher, Robinson, and Thierfelder (2001), and Thorbecke and Eigen-Zucchi (2002) surveyed these attempts. A more up-to-date survey is a paper by De La Cruz and Riker (2014). All of these surveys reach the same general conclusion. At the level of the United States as a whole, the NAFTA had a negligible impact on U.S. employment and wage levels. Burfisher, Robinson, and Thierfelder note that NAFTA impacts are not of sufficient strength to be important among all the other trends affecting the U.S. labor market. Thorbecke and Eigen-Zucchi attribute the lack of impact to the large size of the United States relative to the partner economies; and the comparatively low tariff rates the United States had been imposing on goods from these partner economies, even before the NAFTA lowered them further and typically to zero.[9]

But because the NAFTA did not have a measurable effect in the aggregate or on average across the United States, it does not rule out the possibility that it had measurable effects on some places and workers within the United States.[10] Hakobyan and McClaren (HM, 2010 working paper, 2016 published version) constructed a measure of changes in certain terms of U.S. trade with Mexico brought about by the NAFTA. It incorporates: (a) tariff changes on Mexican goods imports made by the United States; (b) exposure of specific locations based on the local prevalence of employment in the production of goods affected by those tariff changes; and, (c) the likelihood of an effect on trade patterns with Mexico, based on historical patterns that account for trade with other parts of the world. Succinctly, HM create a rigorous measure of NAFTA-created import competition from Mexico faced by U.S. producers in localities in the United States.[11] They then used this measure in an econometric model that allowed them to assess causal local-level impacts on employment and wages. In the 2010 version of their paper, they reported effects on employment levels that are not

[9] A number of studies with NAFTA in their title or otherwise presented as measuring the effects of the NAFTA actually, at best, measure the overall effects of trade between the NAFTA countries. The NAFTA is only one among many reasons why the United States, Canada, and Mexico trade. The fact that they are bordering neighbors is the overwhelming reason why Canada and Mexico are, and long have been, among the top U.S. trading partners. Studies that purported to be about the NAFTA agreement but that failed to control appropriately for other factors that generate trade between the United States, Mexico, and Canada are methodologically flawed and therefore misleading. See Krueger (2000) for a more fulsome discussion of some of the other factors that require control.

[10] Trade agreements also affect trade with countries other than the partners to the agreement. For example, Section III-A discusses how the main USITC simulation of the USMCA projects increased trade with the rest of the world beyond Mexico and Canada and a recent paper by Russ and Swenson (2019) discusses how trade among the partners to an agreement can increase by diverting trade that otherwise would have occurred with other countries. These effects are sometimes of interest in their own right. With regard to aggregate net impacts on U.S. labor markets, there is no need to account for them separately if they are incorporated appropriately in the modeling methods used. This is the case for the literature discussed in the rest of this section, and for the models discussed in the next section.

[11] In addition to the effects on geographic location discussed in this paragraph, HM also look at effects at a disaggregated industrial level. Lack of employment effects and identification of the type of workers who suffer from lower wage growth are similar to those discussed in the paragraph.

statistically distinguishable from zero, i.e., no measurable employment effects.[12] In the 2010 and 2016 versions, they reported statistically significant effects on wages. In particular, their 2016 paper reported that a larger value of their NAFTA-caused import competition measure in a locality is associated with lower wage growth for workers with some college, high school, or less education in that place; and no statistically significant effect on workers who completed college. Based on their measure of import competition, HM's data suggested that the largest suppression effects on wage growth were in localities in Georgia, North and South Carolina, and Indiana. Washington, D.C, Washington state, Virginia, Maryland, Montana, South Dakota, and Iowa experienced little or no suppression effect on wage growth.

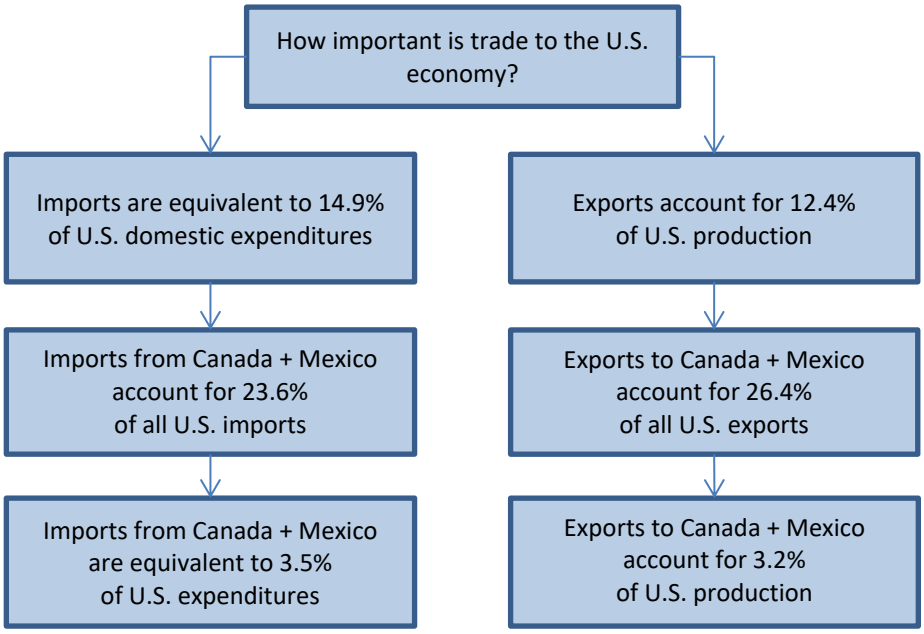
An important point to note about the HM results is that they reflected data up to the year 2000. Whether the effects they measure would continue to be apparent in later data is unknown. Additionally, the HM methods and results accounted only for the effects of NAFTA-induced import competition faced by U.S. producers. They did not account for the effects of the NAFTA on opportunities for U.S. exporters, nor for the possibility that imports, through other channels, contributed to positive U.S. employment and wage effects. Until recently, empirical methods to measure effects of these other channels of impact were not available. Currently, methods and data are being refined in an academic literature debating the effects of China on U.S. employment and wages. These effects trace to consequential and one-time-only late-20th-century policy decisions by China and the WTO that moved China from an economy closed to trade with the rest of the world to one heavily engaged with the rest of the world.[13] To date, this literature shows that import competition with China led to job losses or suppression of job growth and wages for some workers in some locations in the United States. At the same time, new U.S. export opportunities had the opposite, but not fully offsetting, effects. Meanwhile, lower prices for Chinese goods used as inputs in the production of some U.S. goods and services lowered producer costs, incentivizing more U.S. production, and associated U.S. employment growth. In short, this literature demonstrates that changes in trade policy tend to, at the same time, reduce employment opportunities or lower wages for some workers and create employment opportunities or increase wages for others.[14] Whether methods developed in the literature about China will be applicable to similarly assess impacts of other policy changes is uncertain and an area for future research. Nevertheless, the literature about China demonstrates empirically the complexity and offsetting nature of the types of impacts that might be expected of trade policy changes.

D. The Limited Scope for Trade with Mexico and Canada to Affect U.S. Output and Aggregate Employment

To summarize much of the information presented so far, Graphic 1 illustrates the potential for trade with Mexico and Canada to impact U.S. aggregate output.

[12] The published (2016) version of their paper does not discuss effects on employment.
[13] For discussion, see, e.g., Naughton (1996) and Pierce and Schott (2016) and Council of Economic Advisers (2015).
[14] See, Autor, Dorn, and Hanson (2013); Pierce and Schott (2016); Acemoglu, Autor, Dorn, Hanson, and Price (2016); and, Wang, Wei, Yu, and Zhu (2018).

Graphic 1
The Limited Scope for Trade with Mexico and Canada to Affect Aggregate U.S. Output



Source: U.S. Bureau of Economic Analysis and DOL calculations. Data are for 2018. Exports of goods and services are shown as a percentage of GDP. Imports of goods and services are shown as a percentage of domestic expenditure (i.e., GDP minus net exports).

Trade accounts for a small share of the U.S. economy. U.S. imports of goods and services from all countries totaled $3.2 trillion in 2018. This is equivalent to 14.9 percent of all U.S. domestic expenditures. U.S. exports of goods and services to all countries $2.5 trillion in 2018. This is equivalent to 12.4 percent of all U.S. production.

Trade with Canada and Mexico account for around one-quarter of all U.S. trade. In 2018, U.S. imports of goods and services from Mexico and Canada totaled $738.1 billion and accounted for 23.6 percent of all U.S. imports. U.S. exports of goods and services to Mexico and Canada totaled $660.9 billion and accounted for 26.4 percent of all U.S. exports. These shares of U.S. trade translate to a share of U.S. GDP that is of an order of magnitude even smaller (3.5 and 3.2 percent, respectively).

The scope for any changes in trade due to the USMCA has a significantly smaller scope to affect U.S. output or employment. As noted earlier, currently nearly all goods trade already enters (or could enter) the United States duty-free under the provisions of the NAFTA or MFN duty-free. Services trade is also highly liberalized. Therefore, it is unlikely that the provisions in the USMCA will result in substantial changes in U.S. trade patterns with Mexico and Canada. Moreover, the research literature on the employment impacts of the NAFTA suggest some isolated effects on wage growth. While research on the most consequential trade policy changes in the last 25-years (the NAFTA and changes tracing to China) demonstrates that trade policy changes tend to have modest and offsetting effects (some positive, others negative) on U.S. employment and wages.

III. Insights from Quantitative Simulations of the USMCA

The standard workhorse for analysts wishing to simulate quantitative effects induced by prospective trade policy changes is a Computable General Equilibrium (CGE) model. This section reviews in some detail the two CGE simulation studies, United States International Trade Commission (USITC, 2019) and Burfisher, Lambert, and Matheson (BLM, 2019), conducted since the USMCA Agreement was concluded. Box 1 explains generally the CGE methodology and how to interpret its results.

Box 1

What are Computable General Equilibrium Models?

A large body and long history of economic theory and empirical evidence shows how new incentives to trade lead an economy to produce what it can most efficiently, and to trade some of the goods and services produced (that is, to export) in exchange for other goods and services (that is, to import) that its citizens wish to consume but produce relatively less efficiently. Multi-country computable general equilibrium (CGE) models are of entire economies and simulate the workings and inter-relationships that implement this process across all modeled producing, consuming, investing, saving, and trading market sectors.

To model the effects of a policy change (for example, the effects of tariff and non-tariff-barrier reductions from an expected FTA), the CGE model is used to establish a baseline assuming no policy change. The baseline scenario is based on some combination of historical data, trends and certain assumptions about the future. A second scenario, adding *just* the policy change of interest, is then run. The effects of the policy change are measured as the differences between the second scenario and the baseline scenario. Results of simulations vary, even among studies done with the same model. Among other factors, these variations arise from policy assumptions, differences in construction of baseline scenario estimates, the age of the data used, the level of aggregation employed, and various technical assumptions specified in the model.

A policy change may, as a first tendency, increase demand relative to supply in some market sectors and decrease demand relative to supply in others; in the policy-change-induced equilibrium, prices change to re-establish a balance of supply and demand required for equilibrium of the overall model and across all markets in the CGE economy. Therefore, CGE models produce a menu of price differences for the policy-change-induced equilibrium compared to the baseline equilibrium.

Among the markets where equilibrium establishes equality in supply and demand is the labor market, and this outcome is often termed "full employment." Traditionally, the assumption built into CGE models has been that the overall size of the labor force is fixed, so that the aggregate adjustment in the labor market to a shift in labor demand must occur only in the form of its price, i.e., "wages." Figure A illustrates one such adjustment and is emblematic of the aggregate labor market as in the BLM study discussed in the text of this report. The USITC study allows for the possibility that wage changes may be associated with decisions of some workers to enter or exit the labor force. In particular, the "labor supply" curve is upward sloping so that an increase (decrease) in wages brings forth more (fewer) workers willing to work. Figure B illustrates an adjustment to a shift in labor demand in such an instance.

Figure A
Equilibrium Changes in Employment and Wages with No Labor Supply Adjustment

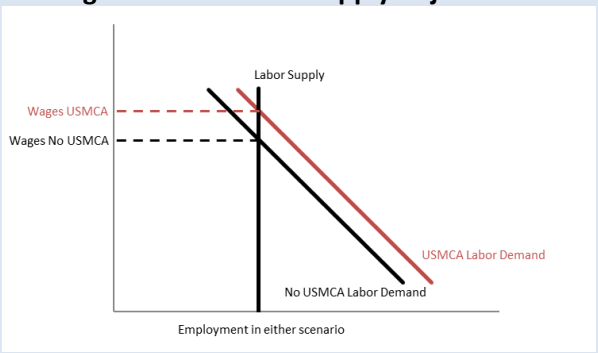
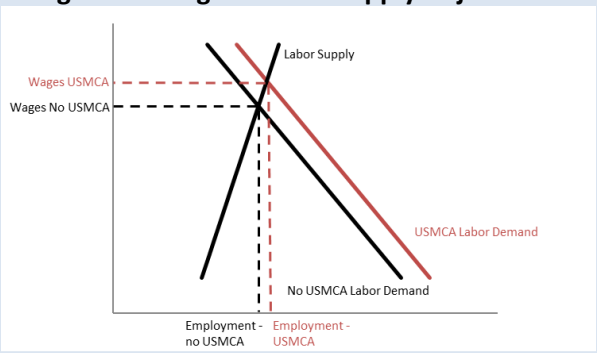


Figure B
Equilibrium Changes in Employment and Wages Allowing for Labor Supply Adjustment



The full-employment assumption should be interpreted only as saying that trade policy changes are assumed not to be a source of unemployment in equilibrium. However, there is no denying that trade policy changes can be the source of someone's unemployment during a period of transition from one equilibrium to the next.

Assumptions (judgements) can be consequential in determining specific quantitative estimates produced, and there can be considerable plausible variation in assumptions. For this reason, a simulation study that runs and explains various scenarios to assess how changes in assumptions (judgements) affects quantitative results provides the reader with a more rigorous treatment than one that is more perfunctory in either the number of scenarios run or in the transparency in discussion of those scenarios. Nevertheless, within one study all scenarios reflect assumptions (judgements) made by the same authors. For this reason, rather than making too much of individual scenarios or studies, it is useful to look across all available scenarios and studies to assess the common sense of the *order of magnitude* of change to be expected.

Some trade policy changes, like the elimination of tariffs under a free trade agreement, are straightforward to input into a CGE model. Other trade policy changes, like those due to the USMCA where nearly all trade between the parties is already duty-free, require modelers to make judgements about how the provisions will affect the economy and how to approximate these changes in the model. Neither of the CGE studies is able to fully and precisely model the terms of the USMCA. Each study identifies and analyzes a subset of the USMCA provisions that the authors believe will have the largest economic impact. There is some overlap in the provisions covered by the two studies. However, even for the provisions covered by both studies, the authors use different approaches and make different assumptions that shape their results. In each of these studies, the assumptions made to model a single provision of the agreement largely drives the modeled results. The authors conduct sensitivity analysis to present a range of figures that suggest that the impact of the USMCA will be small and could be either positive or negative.

A. USITC (2019)

The *Bipartisan Congressional Trade Priorities and Accountability Act of 2015* requires the USITC to conduct a detailed analysis of the likely effects of new trade agreements on the U.S. economy as a whole and in detailed industries. Their report on the USMCA contains a quantitative assessment from a CGE model simulation of the Agreement to estimate the likely impact of the USMCA on the U.S. economy and industry sectors, including estimated changes in GDP, exports and imports, employment, and wages. The CGE simulation incorporates analyses of eight categories of the USMCA provisions (see text box). The USITC groups the provisions into two categories: provisions that alter current policies or set new standards, and provisions that represent commitments that would reduce policy uncertainty by committing the partners to refrain from changing certain regulatory practices. The USITC uses several approaches to estimate the impact of provisions in these eight categories and then integrates these impacts into their economy-wide CGE model to provide estimates of the combined impact of the USMCA on the U.S. economy.

Categories of the USMCA Provisions Considered:

Provisions that alter current policies or set new standards:

- Agriculture
- Automotive
- Intellectual Property Rights (IPRs)
- E-commerce
- Labor

Provisions that represent commitments that would reduce policy uncertainty:

- International data transfer
- Cross-border services
- Investments

The USITC analysis includes innovations in two areas that are relevant to this report.

First, the USITC modified the way labor is treated in the standard model. Using detailed data, they were able to split U.S. workers into five types based on educational attainment. This allows for more detailed analysis of the impact of the Agreement on different types of workers.[15] The USITC also introduces friction into the movement of workers between industries. As trade shifts production priorities within a country, economic theory tells us that wages will adjust drawing workers away from contracting (import-competing) sectors and towards expanding (exporting) sectors. Typically, CGE models allow for the free movement of workers between industries. However, in this model, the USITC assumes workers have limited ability to move across industries. This is more consistent with the literature on this topic, which suggests that workers have industry-specific skills that may restrict their mobility between industries.

Second, the USITC analysis uses a new approach to estimate the impact of the USMCA provisions that seek to reduce policy uncertainty by committing the parties to maintain current regulatory practices affecting international data transfer, cross-border services, and investment. These provisions do not require actual policy changes, but the commitments are valuable inasmuch as they deter future trade barriers. There is a growing body of literature that suggests that certain reductions in trade policy

[15] The USITC groupings are workers with 0-9 years of education, 10-12 years of education, 13-15 years of education, a bachelor's or equivalent degree, and graduate or professional degree.

uncertainty can have sizeable trade-facilitating effects.[16] To incorporate these commitments in international data transfer, cross-border services, and investment in their CGE model, the USITC first estimated the potential impact of the barriers that the USMCA commitments prohibit. The reduction in trade barriers attributable to each commitment is then calculated by applying a weight to capture the portion of the potential impact that represents the value of reducing the policy uncertainty that the (currently non-existent) barrier could be erected in the future.[17] Since the model's results are highly sensitive to the choice of weight, the USITC presents some of their results using three different weights that reflect high (0.5), moderate (0.25), and nonexistent benefits (0.0). The main results presented in USITC (2019) (and in this report) are based on the moderate case.

The USITC main (moderate case) simulation estimates the following economy-wide effects of the USMCA:[18]

- U.S. real GDP will increase by $68.2 billion (or 0.35 percent) over the baseline.
- U.S. exports to the world would increase by $58.2 billion (or 2.4 percent) over the baseline.[19] U.S. exports to Canada and Mexico would increase by $19.1 billion and $14.2 billion (or 5.9 and 6.7 percent), respectively, over the baseline.
- U.S. imports from the world would increase by $58.2 billion (or 2.0 percent) over the baseline. U.S. imports from Canada and Mexico would increase by $19.1 billion and $12.4 billion (or 4.8 and 3.8 percent), respectively, over the baseline.
- U.S. employment will expand by 175,700 full-time equivalents (FTEs) (or 0.12 percent) over the baseline. The USITC does not estimate the number of job transitions that will occur in the short-term as a result of the USMCA nor does it capture the costs associated with employment transition.
- U.S. real wages will increase by 0.27 percent on average, or around $150 per worker and year, over the baseline.

At a broad sector level, Figure 10 shows that, global exports, global imports, output, employment, and wages increase relative to the baseline across the three broad sectors of the economy. In dollar terms, increases in U.S. exports to all countries due to the USMCA are led by the Manufacturing and

[16] See, for example, Handley and Limão (2017), Handley and Limão (2015), and Pierce and Schott (2016). Handley and Limão (2017) find that the reduction of uncertainty about tariff preferences is about half of the effect of tariffs themselves. Ciuriak and Lysenko (2016) find a similar value when considering the effects of the reduction of policy uncertainty on trade in services, but stress that their work is provisional. The USITC caveats its use of this literature by noting that the literature does not specifically address the appropriate weights for the types of policy uncertainty addressed by the USMCA and also that some USMCA commitments may concern domestic policies that are considered longstanding or stable.

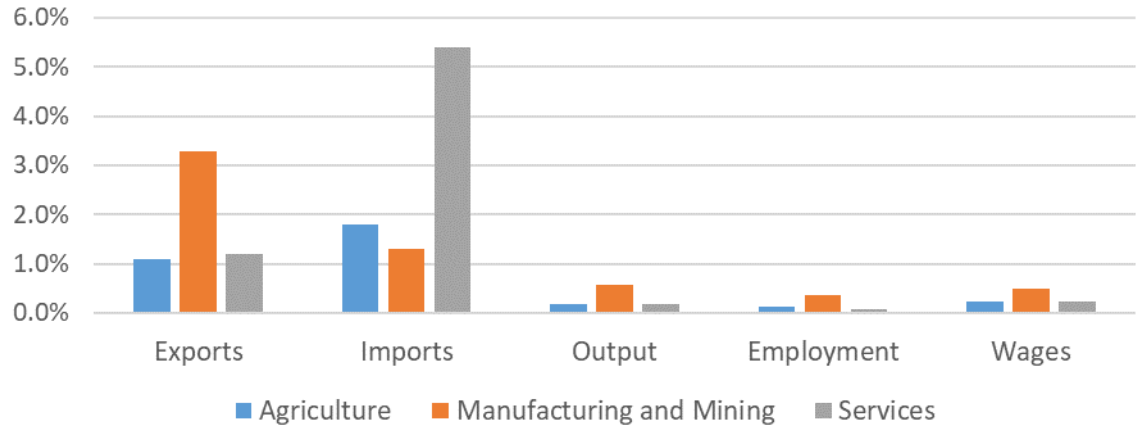
[17] As an illustrative example, USITC explains that if a data flow restriction is estimated to increase trade costs by 10 percent, commitments to not to introduce measures that restrict the data flows would have an effect of a reduction in costs equal to 10 percent multiplied by the weight. So in the case of a weight of 0.25, this example would reduce costs by 2.5 percent (or 0.25 x 10 percent).

[18] All results are in 2017 dollars. As noted previously, the main results reported in USITC (2019) are based on the moderate weight for trade policy uncertainty.

[19] In the USITC model, by assumption, the change in total exports to the world is held equal to the change in total imports from the world. As a result, the model does not allow for a change in the U.S. trade balance with the world.

Mining sector ($47.1 billion or 3.3 percent above the baseline), followed by the Services sector ($8.9 billion or 1.2 percent) and the Agriculture sector ($2.2 billion or 1.1 percent). Increases in U.S. imports from all countries are also led by the Manufacturing and Mining sector ($30.1 billion or 1.3 percent above the baseline), followed by the Services sector ($25.3 billion or 5.4 percent) and the Agriculture sector ($2.7 billion or 1.8 percent).

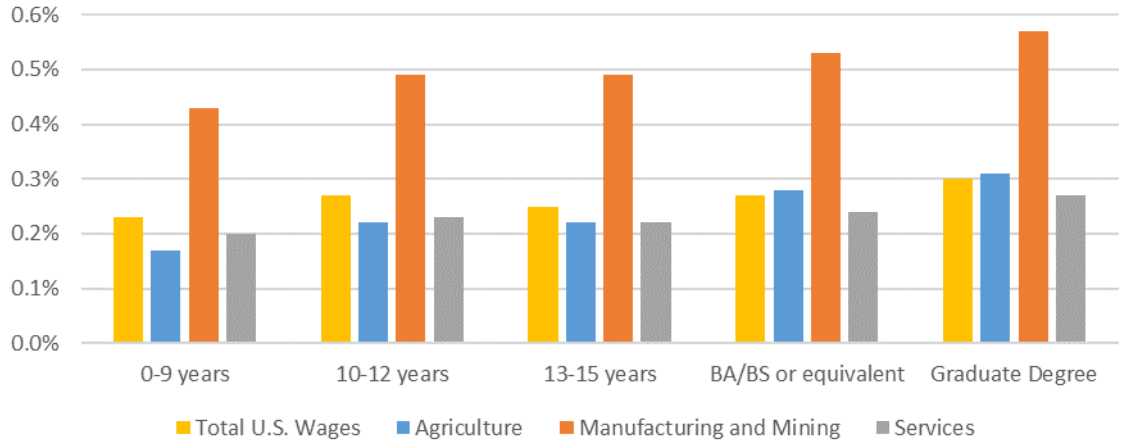
Figure 10
USITC Estimated Effects of the USMCA
Percentage Change Relative to Baseline Scenario



Source: USITC (2019), Tables 2.2 and 2.4
Note: Exports and Imports refer to U.S. trade with all countries.

On average, U.S. real wages will increase by 0.27 percent, or around $150 per worker each year compared to a U.S. economy without the USMCA. Figure 11 shows that workers of all skill levels will see wages increase, with sectors with more highly educated workers having the largest increases. All three broad sectors will see wages increase, while the Manufacturing and Mining sector will have the largest increase.

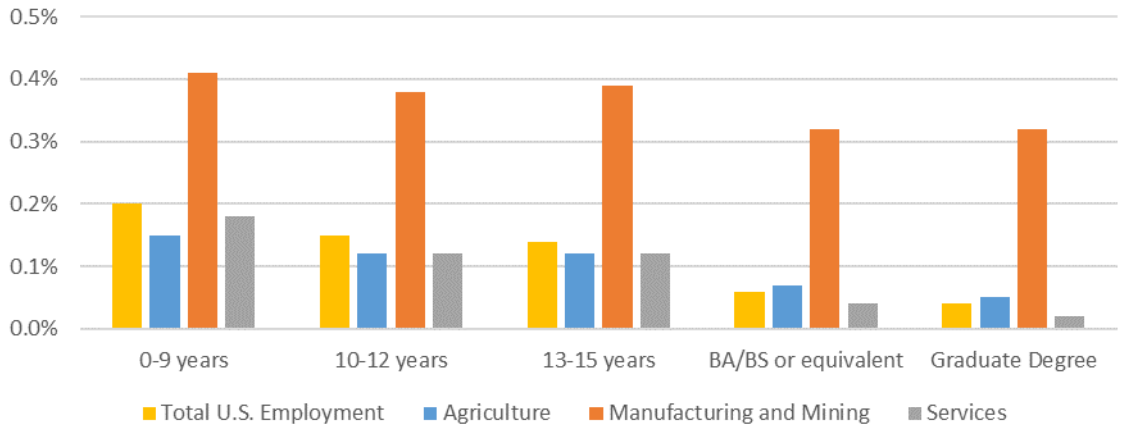
Figure 11
USITC Estimated Effects of the USMCA on U.S. Wages
Percentage Change Relative to Baseline Scenario



Source: USITC (2019), Figure 2.2

U.S. employment will expand by 175,700 full-time equivalent jobs (FTEs) (or 0.12 percent) over the baseline. Figure 12 shows that employment will increase for workers of all skill levels. The changes vary by skill level for several reasons. One reason is that the skill make-up of industries varies, so growth in a given industry could favor the skill-level most highly represented in that industry. Another reason is that the USITC specified that workers with lower education attainment are more responsive to wage changes than workers with higher education. The highest rates of employment growth will occur for workers with the lowest levels of education. In absolute figures, employment will increase the most for workers with 10-12 years of education (about 75,000 FTEs), followed by workers with 13-15 years of education (about 63,000 FTEs), workers with a BA/BS or equivalent (about 19,000 FTEs), workers with 0-9 years of education (about 13,000 jobs), and workers with graduate degrees (about 6,000 FTEs). All three broad sectors will see employment increases, while the Manufacturing and Mining sector will have the largest percentage increase. In absolute figures, employment will increase the most in Services (124,300 FTEs), followed by Manufacturing and Mining (49,700 FTEs), and Agriculture (1,700 FTEs). The USITC does not estimate the number of job transitions that will occur in the short-term as a result of the USMCA nor does it capture the costs associated with employment transition.

Figure 12
USITC Estimated Effects of the USMCA on U.S. Employment
Percentage Change Relative to Baseline Scenario



Source: USITC (2019), Figure 2.4

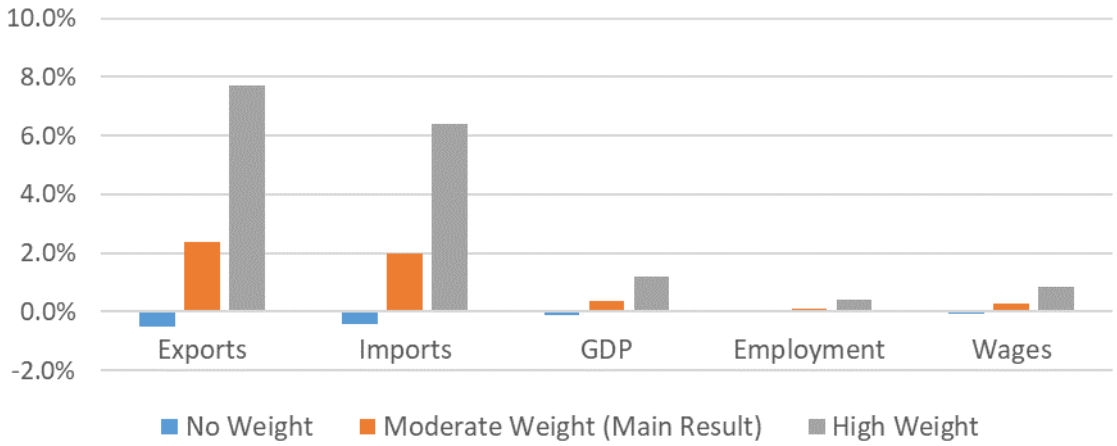
Since, as discussed previously, the USITC introduced restricted labor mobility as a modeling innovation, the USITC presents their findings using a variety of assumptions about labor mobility to show the impact of this change. The results show that the labor mobility assumption has a small effect on the model's estimated impacts for the overall economy, but more substantial impacts at the sector level. When labor is perfectly mobile between sectors, workers would move to the sectors with higher than average wage growth. In this case, workers would move to the Manufacturing and Mining sector, away from Agriculture and Services, until wages equalized. As a result, employment growth in Manufacturing and Mining sector would be slightly higher under the scenario with free labor mobility (0.45 percent change relative to baseline versus 0.37 percent change relative to baseline), and employment growth in the Agriculture and Services sectors would be slightly lower (0.09 and 0.08 percent versus 0.12 and 0.09 percent, respectively).

Up to this point, the discussion of USITC (2019) has focused on the main results, which use the "moderate weight" of 0.25 to assess the affect the reduction of trade policy uncertainty due to certain provisions of the USMCA. Figure 13 shows that the USITC's innovative modeling of the reduction in policy uncertainty due to commitments to maintain policies affecting international data transfer, cross-border services and investment and the selection of this "weight" has a strong influence on their results. As mentioned previously, the USITC ran their simulation assigning three weights to capture the value of reducing policy uncertainty. Their main results include a weight of 0.25 (the orange bar in Figure 13). They also run their simulation with a weight of zero (providing no modeling of the reduction in trade policy uncertainty due to the USMCA commitments in international data transfer, cross-border services, and investment) and with a high weight of 0.5.[20] When the reduction in trade policy uncertainty due to these provisions is not included (the blue bars) and therefore excluding the measurement of these provisions, the main findings of the effects of the USMCA on

[20] The 0.5 weight is informed by a small literature on trade policy uncertainty that is not directly related to the USMCA case. See footnote 14 for further discussion.

exports, imports, GDP, employment, and wages, all become negative compared to the baseline. This means, that according to the USITC's analysis, the positive impact of the USMCA is due largely to the provisions that reduce policy uncertainty. This is not surprising given that there are limited tariff reductions—traditionally the most important factor in the USITC's economic modeling—to consider as the NAFTA already eliminated the vast majority of tariffs between the United States, Mexico, and Canada.

Figure 13
USITC Estimated Impact of the USMCA
by Weight Assigned to Modeled Provisions that Reduce Policy Uncertainty
Percentage Change Relative to Baseline Scenario



Source: USITC (2019), Tables 2.6 and 2.8
Note: Exports and Imports refer to U.S. trade with all countries.

Of the other provisions considered by the USITC (those that alter current policies or set new standards), the changes in the automotive rules of origin have the most influence on the results. The USITC finds that the auto-related provisions of the USMCA will increase employment in the automotive sector (specifically, certain auto parts). The provisions are expected to result in a greater number of auto parts being produced in the United States and raise the production costs of automobiles. In the economy-wide model, the increase in U.S. auto part production draws resources away from other manufacturing sectors and the rest of the economy, driving up costs for other sectors. These changes result in reduced exports, reduced real incomes (due to increased prices), and reduced wages and employment in the overall economy.[21] In their main results, the positive impact of the reduction of trade policy uncertainty due to commitments in international data transfers, cross-border services and investment offsets these negative effects.

[21] USITC (2019) does not specify the estimates.

B. Burfisher, Lambert, and Matheson (2019)

Burfisher, Lambert, and Matheson (BLM, 2019) use the same type of CGE model as USITC, but their analysis of its U.S. impacts is less comprehensive than that of the USITC.[22] A key difference between assumptions is that BLM hold the size of the labor force and employment constant, while the USITC allows for the possibility that the labor force and employment may expand or contract (see Box 1 for further discussion). In addition, the USITC conducts and discusses detailed qualitative and quantitative sensitivity analyses of the impact of the provisions they consider to determine how the results of the changes and which results they designate as "main". BLM generally make their modeling choices based on their reading of available literature. The data used in the BLM model is also less detailed than that used by the USITC.[23] Finally, BLM study only the five USMCA provisions listed in the accompanying text box, while the USITC considered eight categories of provisions.

Five USMCA Provisions Considered:

- Higher regional value content requirements for vehicles and auto parts
- New labor value content requirements for vehicles
- Stricter rules of origin for textiles and apparel
- Agricultural trade liberalization for dairy, sugar, and peanuts
- Customs and trade facilitation measures

The BLM simulation estimates the following U.S. economy-wide effects of the five USMCA provisions combined:

- U.S. real GDP will have no change (0.0 percent) compared to the baseline.
- U.S. exports to the world would decrease by $1.7 billion (or -0.1 percent) over the baseline. U.S. exports to Canada and Mexico would decrease by $302.0 million and $2.4 billion (or -0.1 and -1.1 percent), respectively, over the baseline.
- U.S. imports from the world would decrease by $1.4 billion (or -0.1 percent) over the baseline. U.S. imports from Canada and Mexico would decrease by $58.0 million and $1.7 billion (or -.02 and -0.5 percent), respectively, over the baseline.
- U.S. employment remains fixed by assumption.
- U.S. real wages will have no change (0.0 percent) compared to the baseline for either skilled or unskilled labor.

The changes in trade flows brought on by the five USMCA provisions included in their model would lead to changes in output. The largest declines in U.S. production would be in vehicle parts (-0.44 percent) and textiles (-0.23 percent). Other sectors would experience much smaller gains or losses (that mostly round to 0.0 percent).

[22] The BLM study also analyzes the impact of these provisions on the Canadian and Mexican economies, but those results are not summarized here. The focus of this report is on the impact of the USMCA in the United States.
[23] For example, the USITC model divides the U.S. economy into 103 sectors, whereas the BLM model includes 17. BLM also includes only two types of labor: skilled and unskilled, compared to five types in the USITC report.

The provisions related to automobiles and textiles and apparel, as modeled by BLM (2019), have a negative impact on the U.S. economy.[24] However, the assumptions made to model the effects of improved trade facilitation under the USMCA lead to offsetting positive impacts.

Both the USITC and BLM studies illustrate the difficulties associated with modeling the impacts on non-tariff trade policy changes, such as those in the USMCA, and the strong role that assumptions made in the modeling process can play on the results. It is important to review the full range of estimates and understand the key underlying assumptions that drive them. Nevertheless, in all scenarios considered across both studies, the USMCA effects on overall employment and wages in the United States are of a similar order of magnitude and range from slightly negative to less than a one-percent increase.

IV. Analysis of Provisions Negotiated to Achieve Labor Market Objectives

This section discusses two sets of the USMCA provisions negotiated with an explicit labor and employment motivation: new rules of origin provisions for automobiles and auto parts and the Agreement's labor provisions.

A. New Rules of Origin Provisions for Automobiles and Auto Parts

A rule of origin (ROO) specifies how much content must originate within the borders of the parties to a trade agreement for a product to be eligible to incur no duty under the trade agreement. The USMCA includes new ROO for automobiles and auto parts that require more regional content than under the NAFTA to be eligible for duty-free treatment. These ROOs include increased regional value content (RVC) requirements for vehicles, core auto parts, principal auto parts, and complementary auto parts;[25] new steel and aluminum purchasing requirements; and new labor value content (LVC) requirements. A simplified summary of these rules is provided in Table 1.[26]

[24] For a detailed description of how BLM incorporate the five USMCA provisions into the model, see BLM (2019), Table 2.

[25] To meet the RVC a good must contain a minimum amount of "originating" material from one of the USMCA partner countries.

[26] For a more detailed summary of all relevant provisions, see USITC (2019), Table 3.3

Table 1
Summary of the Main USMCA Rules of Origin for Automobiles and Auto Parts

USMCA Requirement	Comparison to NAFTA Requirement
Passenger vehicles and light trucks must meet a minimum 75 percent RVC.[27]	Passenger vehicles and light trucks must meet a minimum 62.5 percent RVC.
Core parts (including engines, transmissions, axles, suspension, steering, and advanced batteries) must originate in the USMCA countries.	Certain auto parts are required to originate in the NAFTA countries, while others can be "deemed originating" without proving they originated in North America.
70 percent of the steel and aluminum used in passenger vehicles and light trucks must originate in the USMCA countries.	No similar requirement.
40 percent of the total manufacturing cost of passenger vehicles and 45 percent of the total manufacturing cost of light trucks must be from high-wage material or manufacturing costs with a production wage rate of at least $16/hour, high-wage research and development and IT expenditure costs, and qualifying assembly credits.[28]	No similar requirement.

Note: For a more detailed summary of the automotive provisions of the USMCA, see USITC (2019), Table 3.3

In principle, the ROO provisions should increase the per-unit U.S. content, including employment, in the production of automobiles and parts that receive USMCA preferences. The provisions may also incentivize diverting a larger share of production to U.S. plants and locations. The new ROO provisions may not decrease the cost of producing each unit granted USMCA preferences. Any price and cost changes in the auto sector associated with the diversion of resources to or from that sector and away or toward others may affect other prices in the economy and the expected economy-wide net employment impact of the provisions.

The two studies discussed in Section III and the Office of the United States Trade Representative (USTR, 2019) assess possible employment impacts of these provisions.[29] Table 2 provides a brief description of the methodology and estimated impact for each of these assessments. The remainder of this subsection discusses these assessments in more detail.

[27] In addition, there are specific RVC requirements for the different types of auto parts.
[28] The USMCA has specific requirements for the share of each of these components can contribute to the LVC requirement.
[29] Further, the Center for Automotive Research (CAR), analyzed the impact of the USMCA combined with several other trade policy actions, including potential tariffs on the automotive sector Section 232 of the Trade Expansion Act of 1962 (Schultz, et al. 2019). While the impact of the USMCA cannot be isolated in their study, it does provide some interesting insights. Similar to the USITC, they conduct their analysis at the vehicle model level. However, they assume a higher number of vehicles will not be brought into compliance with the USMCA and instead will pay the 2.5 percent tariff. CAR also extends their analysis to include negative impacts on downstream employees, like those at dealerships.

Table 2
Summary of Analysis of the Employment Impact of the USMCA Auto-Provisions

Study	Method of Analysis	Estimated Employment Effect
USITC (2019)	CGE model; A detailed sector-specific model was used to estimate the impact of ROOs on costs. These impacts were included in the CGE model.	When considering the auto and two core auto parts (engines and transmissions) industry in isolation, they find a net employment increase of 28,100 in the vehicle, engine, and transmission production sector. When included in the economy-wide model, the changes in auto provisions "reduce wages and employment in overall economy" (USITC 2019, p. 58).
BLM (2019)	CGE model; An impact of ROOs on trade barriers suggested by other economic studies was used in the CGE model.	Because total employment is fixed by assumption (see Section III of this report), reduced output in both the motor vehicle and vehicle parts sectors suggests reduced employment in these sectors, offset by increased employment elsewhere.
USTR (2019)	Business confidential transition plans; news releases; jobs multiplier	Will support an additional 76,000 jobs in the automotive sector.

The USITC (2019) employed a complex, industry-specific economic model of the North American auto market using detailed information for 393 light vehicles produced by 22 manufacturers in North America and sold to North American consumers. The model assumes that most vehicle models are close to compliance with the new USMCA requirements and would increase their North American content to meet them. Vehicle models that were not close to compliance would not change their production to meet the USMCA requirements. This is consistent with what industry representatives told the USITC. The model is limited in that it only considers the sourcing of engines and transmissions, and not the many other auto parts that will be impacted (i.e., the model includes about 60 percent of U.S. shipments of motor vehicles and parts). The model also does not include indirect effects on auto dealers or other auto part suppliers.

When looking just at results for the auto and auto part sector, the positive employment effects appear to dominate. The USITC finds that the USMCA ROO for autos will increase production costs, decrease the number of autos sold, but lead to a net increase in U.S. employment in the vehicle, engine, and transmission production of 28,100. This change in employment includes a decrease in U.S. employment in vehicle production of 1,600 and a larger, offsetting increase in U.S. employment in engine and transmission production of 29,700. However, when the cost and price effects associated with these results are plugged into the economy-wide model (which also includes other provisions), they have a negative effect on the U.S. economy as a whole, including reducing wages and employment in the overall economy.

The BLM (2019) study makes several assumptions to model the USMCA provisions for autos. To model the higher RVC requirement for auto parts, the authors assume that the compliance costs will be so high that exporters will forgo the USMCA benefits and all auto parts trade between the three countries will occur instead at most-favored-nation (MFN) tariff rates.[30] To model the higher RVC requirement for vehicles, the authors assume compliance costs as an ad-valorem equivalent of 75 percent of the margin of preference (i.e., the difference between the USMCA and MFN rates) and a 3 percent tariff on Mexican vehicle imports. The LVC is modeled as a 50 percent increase in labor costs in Mexico's vehicle production. These judgements drive the simulation result: regional trade in auto and auto parts declines leading to reduced production of autos and auto parts in each country. Because total employment is fixed by assumption (see Section III of this report), reduced output in both the motor vehicle and vehicle parts sectors suggests reduced employment in these sectors, offset by increased employment elsewhere.

USTR (2019) estimates that the USMCA will support 76,000 additional jobs in the U.S. automotive sector. Using business confidential transition plans provided by automakers as well as public announcements, USTR concludes that the USMCA will directly support 22,800 new automotive assembly jobs. They estimate, using a conservative 1:2 jobs multiplier, that these jobs will support an additional 45,600 automotive supplier jobs. (That is, they also assume each assembly job supports an additional two automotive supplier jobs.) They also expect the USMCA will support 8,000 additional advanced battery supplier jobs. USTR does not consider economy-wide impacts.

In considering the variety of outcomes suggested by these studies, note that the USTR estimates focus simply and transparently on impacts to the automobile sector. The USITC estimates for the automobile sector uses a complex model and the subsequent inputting of these results into their economy wide CGE model leads their results to be comprehensive in the sense that the CGE model assesses a wide array of channels of impact on the U.S. economy as a whole. However, the complexity and comprehensiveness of their models makes a concise and transparent summary identification of the precise channels affecting their results difficult. Finally, the BLM results appear driven by their assumption that producers will not seek to use the USMCA preferences because of the new ROO provisions for auto parts, their judgements about the costs imposed by meeting new ROO requirements for automobiles, and their assumption that overall U.S. employment levels are fixed.

B. Labor Provisions

The labor chapter of the USMCA brings labor obligations into the core of the agreement, rather than in a supplemental agreement as in the NAFTA, and makes the obligations more likely to be enforced. The chapter requires the Parties to adopt and maintain in law and practice labor rights as recognized by the International Labor Organization (ILO), to effectively enforce their labor laws, and not to waive or derogate from their labor laws. It includes new provisions requiring the Parties to prohibit the importation of goods produced by forced labor and to address violence against

[30] The WTO Agreement obligates Members to accord "most favored nation" tariff treatment to the goods of other WTO members. Under MFN, with certain exceptions, if a tariff is applied to a good from one Member country, the same tariff must be applied to the same good from all Member countries. (Among the allowable exceptions to MFN are bilateral free trade agreements.) U.S. law uses the term "normal trade relations" (NTR) instead of the term MFN.

workers exercising their labor rights. It also makes obligations more easily enforceable by clarifying the meaning of "manner affecting trade" and "sustained or recurring." It also includes an Annex on Worker Representation in Collective Bargaining in Mexico, under which Mexico commits to specific legislative actions to provide for the effective recognition of the right to collective bargaining, namely, secret ballot vote to elect union leadership, challenge existing bargaining representatives, and approve new and existing collective bargaining agreements. Similar to the NAFTA labor agreement, it provides procedural guarantees for enforcement of labor laws. These include due process through independent and impartial judicial and administrative tribunals, and establish institutional mechanisms to provide for intergovernmental engagement and cooperation with stakeholder input and a public submission process whereby members of the public can seek review of claims that a Party is not meeting its obligations under the labor chapter. Unlike the NAFTA labor agreement, all of the obligations in the labor chapter are subject to the same dispute settlement mechanisms and potential trade sanctions as the rest of the Agreement.

Compared to the NAFTA, the provisions of the USMCA are stronger and more likely to bring about compliance with the labor rights and laws covered. The effect of stronger compliance on employment and wage outcomes depends on what happens to labor costs and productivity. The literature that discusses channels through which the labor rights covered in the USMCA may affect costs and productivity is inconclusive. There are channels through which they could raise labor costs, increase labor productivity (which would have an effect similar to decreasing labor costs), or both.[31] If they increase costs on balance, then better compliance with the rights should decrease employment, wages, or both. But if productivity enhancements dominate, employment and wage levels should increase. Whether changes in compliance in one country affect overall labor market outcomes in another in turn depends on whether compliance practices affect the price at which each country sells its goods to each other and on world markets. This in turn depends on the size of each country's market share and how similar to each other consumers believe the goods from both countries to be.[32] Because of the offsetting effects of the various possible channels of impact on costs within countries and terms of trade across countries, and because of a lack of quality data, empirical work to assess how labor rights compliance in one country affects labor markets in another is also inconclusive.[33]

The USITC (2019) performed a quantitative simulation of one labor provision: the provision that requires Mexico to establish and maintain regulations that effectively recognize workers' collective bargaining rights, as specified in the Agreement. They find little-to-no impact on U.S. prices and U.S. labor markets.

[31] See Swinnerton (1996), Organization for Economic Cooperation and Development (OECD, 1996 and 2000), Hasnat (2002), Milberg and Houston (2005), Scherrer (2007), and Salem and Rozental (2012).
[32] See Elliot and Freeman (2003), Dehijia and Samy (2004), Chau and Kanbur (2006), Kimeldorf et al. (2006), Howard and Allan (2008), Rousu and Corrigan (2008), Dragusanu et al. (2014), and Hainmueller et al. (2015).
[33] See OECD (1996 and 2000), Mah (1997), Cook and Nobel (1998), Busse (2002), Hasnat (2002), Kucera (2002), Samy and Rogriquez (2003), Melberg and Houston (2005), and Busse, Nunnenkamp and Spatareanu (2011).

V. Findings

This report on a prospective review of the effects of the USMCA on U.S. employment and labor markets finds that the scope for the USMCA to affect U.S. employment and labor markets is narrow. It reviews available quantitative simulations of the Agreement as a whole on the U.S. labor market in aggregate, which suggest that an expectation of positive effects on U.S. employment and average wage levels should depend on the policy uncertainty-reducing effects of the USMCA commitments to refrain from regulatory changes affecting international data transfer, cross-border services, and investment. In any case, the sizes of the effects are modest reflecting the narrow scope the Agreement has in the context of the very large and mostly domestic-facing U.S. economy. Finally, with regard to provisions that were explicitly motivated by employment and labor (on rules of origin for automobiles and labor rights enforcement provisions), it similarly finds reason to expect very modest effects of the provisions *per se*, and these also can range from negative to positive, so that "no effect" is within that range.

References

Acemoglu, Daron, David Autor, David Dorn, Gordon H. Hanson, and Brendan Price. 2016. "Import Competition and the Great U.S. Employment Sag of the 2000s." *Journal of Labor Economics* 34 (S1): S141-S198.

Autor, David H., David Dorn, and Gordon H. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review* 103 (6): 2121-2168.

Burfisher, Mary E., Sherman Robinson, and Karen Thierfelder. 2001. "The Impact of NAFTA on the United States." *Journal of Economic Perspectives* 15 (1): 125-144.

Burfisher, Mary E., Frederic Lambert, and Troy Matheson. 2019. "NAFTA to USMCA: What is Gained?" IMF Working Paper WP/19/73.

Busse, Matthias. 2002. "Do Labor Standards Affect Comparative Advantage in Developing Countries?" *World Development* 30 (11): 1921-32.

Chau, Nancy and Ravi Kanbur. 2006. "The Race to the Bottom, from the Bottom." *Economica* 73 (290): 193-228.

Cook, William and Deborah Noble. 1998. "Industrial Relations Systems and US Foreign Direct Investment Abroad." *British Journal of Industrial Relations* 36 (4): 581-609.

Council of Economic Advisers (CEA). 2015. "Economic Report of the President."

De La Cruz, Justino and David Riker. 2014. "The Impact of NAFTA on U.S. Labor Markets." U.S> International Trade Commission, Office of Economics Working Paper No. 2014-06A.

Dehejia, Vivek and Yiagadeesen Samy. 2004. "Trade and Labor Standards: Theory and New Empirical Evidence." *Journal of International Trade and Development* 13 (2): 179-198.

Dewit, Gerda; Holger Gorg, and Catia Montagna. 2009. "Should I Stay or Should I Go? Foreign Direct Investment, Employment Protection and Domestic Anchorage." *Review of World Economics* 145 (1): 93-110.

Dragusanu, Raluca; Daniele Giovannucci, and Nathan Nunn. 2014. "The Economics of Fair Trade." *Journal of Economic Perspectives* 28 (3): 217–236.

Elliott, Kimberly and Richard Freeman. 2003. *Can Labor Standards Improve Under Globalization?* Washington: Institute for International Economics.

Feenstra, Robert C. and Akira Sasahara. 2017. "The 'China Shock', Exports and U.S. Employment: A Global Input-Output Analysis." NBER Working Paper No. 24022.

Feenstra, Robert C., Hong Ma, and Yuan Xu. 2017. "U.S. Exports and Employment." NBER Working Paper No. 24056.

Flatness, Anne, and Chris Rasmussen. 2017. "U.S.-Produced Value in U.S. Imports from NAFTA." U.S. Department of Commerce, International Trade Administration.

Hainmueller, Jens; Michael Hiscox, and Sandra Sequeira. 2015. "Consumer Demand for the Fair Trade Label: Evidence from a Multi-Store Field Experiment." *The Review of Economics and Statistics* 97 (2): 242-256.

Hakobyan, Shushanik and John McLaren. 2010. "Looking for Local Labor Market Effects of NAFTA." NBER Working Paper No. 16535.

Hakobyan, Shushanik and John McLaren. 2016. "Looking for Local Labor Market Effects of NAFTA." *The Review of Economics and Statistics* 98 (4): 728-741.

Handley, Kyle, and Nuno Limão. 2015. "Trade and Investment under Policy Uncertainty: Theory and Firm Evidence." *American Economic Journal: Economic Policy* 7 (4): 189-222,

Handley, Kyle, and Nuno Limão. 2017. "Policy Uncertainty, Trade, and Welfare: Theory and Evidence for China and the United States." *American Economic Review* 107 (9): 2731-2783.

Hasnat, Baban. 2002. "The Impact of Core Labor Standards on Exports." *International Business Review* 11 (5): 563-275.

Heintz, James. 2002. "Global Labor Standards: Their Impact and Implementation." Political Economy Research Institute Working Paper No. 46.

Howard, Philip and Patricia Allen. 2008. "Consumer Willingness to Pay for Domestic 'Fair Trade': Evidence from the United States." *Renewable Agriculture and Food Systems* 23 (3): 235–242.

Kimeldorf, Howard; Rachel Meyer, Monica Prasad, and Ian Robinson. 2006. "Consumers with a Conscience: Will They Pay More?" *Contexts* 5 (1): 24-29.

Krueger, Anne O. 2000. "NAFTA's Effects: A Preliminary Assessment." *The World Economy*. 23 (6): 761-775.

Kucera, David. 2002. "Core Labor Standards and Foreign Direct Investment." *International Labour Review* 141 (1-2): 31–69.

Mah, Jai. 2002. "Core Labour Standards and Export Performance in Developing Countries." *The World Economy* 20 (6): 773-785.

Milberg, William and Ellen Houston. 2005. "The High Road and the Low Road to International Competitiveness: Extending the Neo-Schumpeterian Trade Model beyond Technology." *International Review of Applied Economics* 19 (2): 137-162.

Naughton, Barry. 1996. "China's Emergence and Prospects as a Trading Nation." Brookings Papers on Economic Activity, Economic Studies Program, 27 (2): 273-344.

OECD. 1996. *Trade, Employment and Labor Standards: A Study of Core Workers' Rights and International Trade*. Paris: OECD Publishing.

Office of the United States Trade Representative. 2019. "Estimated Impact of the United States-Mexico-Canada Agreement (USMCA) on the U.S. Automotive Sector."

Pierce, Justin R. and Peter K. Schott. 2016. "The Surprisingly Swift Decline of US Manufacturing Employment." *American Economic Review* 106, (7): 1632-1662.

Rousu, Mathew and Jay Corrigan. 2008. "Consumer Preferences for Fair Trade Foods: Implications for Trade Policy." *Choices* 23 (2): 53-55.

Russ, Katheryn N. and Deborah L. Swenson. 2019. "Trade Diversion and Trade Deficits: The Case of the Korea-U.S. Free Trade Agreement." NBER Working Paper No. 25613.

Salem, Samira and Faina Rozental. 2012. "Labor Standards and Trade: A Review of Recent Empirical Evidence." *USITC Journal of International Commerce and Economics* (August).

Swinnerton, Kenneth. 1997. "An Essay on Economic Efficiency and Core Labor Standards." *World Economy* 20 (1): 73-86.

Thorbecke, Willem and Christian Eigen-Zucchi. 2002. "Did NAFTA Cause a 'Giant Sucking Sound'?" *Journal of Labor Research* 23 (4): 647-658.

United States International Trade Commission. 2019. "U.S.-Mexico-Canada Trade Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors."

Wang, Zhi, Shang-Jin Wei, Xinding Xu, and Kunfu Zhu. 2018. "Re-examining the Effects of Trading with China on Local Labor Markets: A Supply Chain Perspective." NBER Working Paper No. 24886.