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REVISITING NAFTA
Still not working for North America's workers

BY ROBERT E. SCOTT, CARLOS SALAS, AND BRUCE CAMPBELL
INTRODUCTION BY JEFF FAUX

Despite its name, the primary purpose of the North American Free Trade Agreement (NAFTA) was not to facilitate trade among separate sovereign societies. Rather, it was to promote an integrated continental economy and establish the rules to govern it.

As a former foreign minister of Mexico once remarked, NAFTA was "an agreement for the rich and powerful in the United States, Mexico, and Canada, an agreement effectively excluding ordinary people in all three societies." It should, therefore, be no surprise that NAFTA rules protect the interests of large corporate investors while undercutting workers' rights, environmental protections, and democratic accountability. Hence, NAFTA should be seen not as a stand-alone treaty, but as part of a long-term campaign by the conservative business interests in all three countries to rip up their respective domestic social contract.

This report details how this campaign played out in the labor markets of all three nations. It is, of course, not the full and complete measure of the impact of NAFTA. But it is arguably the most important one, because the agreement was sold to the people of each nation on the promise that it would bring large net benefits in better jobs and faster growth. Indeed, supporters claimed the gains would be so large as to more than compensate for the erosion of the average workers' bargaining power and the weakening of citizens' rights to use government to protect themselves against the insecurities of unregulated markets.

Twelve years later, it is clear that the costs to workers outweighed the benefits in all three nations. The process differed from country to country, and given the greater size and wealth of the United States, the impact there has not been as great as it was in Mexico and Canada. But the overall pattern was similar. In each nation, workers' share of the gains from rising productivity fell and the proportion of income and wealth going to those at the very top of the economic pyramid grew.

TABLE OF CONTENTS

Americans were promised that NAFTA would generate large numbers of net new good jobs. Instead, over a million jobs that would otherwise have been created were lost, and wages were pressured downward for a large number of workers with less than a college education.

Mexican employment did increase, but much of it in low-wage "maquiladora" industries, which the promoters of NAFTA promised would disappear. The agricultural sector was devastated and the share of jobs with no security, no benefits, and no future expanded. The continued willingness every year of hundreds of thousands of Mexican citizens to risk their lives crossing the border to the United States because they cannot make a living at home is in itself testimony to the failure of NAFTA to deliver on the promises of its promoters.

Canada likewise saw continental integration undercut working families. Except for those at the top, real incomes have virtually stagnated. Canadians were assured that NAFTA and the earlier Canada–U.S. Free Trade Agreement were necessary to save the social safety net of which they are justly proud. Yet a dozen years later, government transfers to individuals have dropped from 11.5% of GDP to 7.8% of the country's GDP, and Canadian government's overall (non-military) program spending fell from 42.9% of GDP in 1992 to 33.6% of GDP in 2001 (see Canadian analysis starting on p. 53).

Defenders of NAFTA have two main responses. One is that its damage to workers is exaggerated. Perhaps. But NAFTA was supposed to make thing a great deal *better* for workers, not—even a little—worse. The second response is that the problems of inequality are largely the result of domestic policies and have nothing to do with globalization. Yet that ignores the enormous increase in bargaining leverage over workers that the ability to shift production out of the country, and then sell the products back home, gives the transnational corporation. With that leverage, corporate influence over economic policy has greatly expanded in all three nations since the agreement was signed.

The reality is that the denial of social protections in the rules of an internationally integrated market inevitably undermines the protections established in the previously separate domestic economies after decades of political struggle. In that sense, the "vision" of NAFTA is profoundly reactionary: it pushes nations back toward a 19th century ideology in which government's economic function is to protect the interests of investors, while working people—the overwhelming majority in each nation—are left to fend for themselves.

The following three studies add to the mounting evidence of NAFTA's perverse impact on the distribution of income, wealth, and political power in all three nations. For over 12 years, we have been told by NAFTA's champions to be patient, that NAFTA's great benefits were just around the corner. We are still waiting. The time for a continent-wide debate over the future of this agreement, which was negotiated by and for the rich and powerful in all three countries, is now overdue.

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NAFTA'S LEGACY

Rising trade deficits lead to significant job displacement and declining job quality for the United States

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Public officials and economists frequently claim that trade agreements "create more high-paying jobs for American workers."[1] Trade is supposed to move workers from low-productivity, low-wage import-competing industries into high-productivity export jobs with better wages. Yet the reverse has been true for U.S. trade with Mexico since the North American Free Trade Agreement (NAFTA) took effect in 1994. In the United States workforce, NAFTA has contributed to the reduction of employment in high-wage, traded-goods industries, the growing inequality in wages, and the steadily declining demand for workers without a college education.

These effects of NAFTA have occurred for two reasons. First, growing trade deficits with Mexico and Canada have displaced production that supported roughly 660,000 (manufacturing only) and 1.0 million (total) U.S. jobs since the agreement took effect in 1994. Export growth since 1994 supported an additional 1 million U.S. jobs, while imports displaced domestic production that would support 2 million jobs.

Second, average wages in U.S. jobs that compete with U.S. imports from Mexico pay 1% to 5% more than jobs in industries that export to Mexico. Therefore, even if U.S. exports to and imports from Mexico had grown equally, the United States would have experienced downward pressure on wages. U.S. imports from Mexico rose faster than exports after NAFTA, which only served to heighten the adverse wage effects. In addition, the U.S. trade deficit with Mexico increased, pushing workers out of traded goods industries into lower-paying, non-traded goods industries. The finding that increased integration has not supported the growth of higher-paying jobs negates a major justification for NAFTA and other proposed regional trade and investment agreements: that NAFTA would generate a gain in high-wage jobs in the United States.

Both import and export jobs have relatively high average wages. The 1 million jobs displaced by NAFTA trade, primarily in manufacturing, would have paid $800 per week or more in 2004. The average job in the rest of the economy paid only $683 per week, 16% to 19% less than trade-related jobs. Growing trade deficits with Mexico and Canada have pushed more than 1 million workers out of higher-wage jobs and into lower-wage positions in non-trade related industries. Thus, the displacement of 1 million jobs from traded to non-traded goods industries *reduced wage payments to U.S. workers by $7.6 billion in 2004 alone.*

The loss of good jobs in manufacturing and other traded goods industries due to rising trade deficits has surely suppressed average U.S. wages for workers with skills similar to those displaced by trade.[2] Before adopting agreements such as the proposed Western Hemisphere free trade agreement—the Free Trade Area of the Americas (FTAA)—and free trade agreements with Korea, Thailand, and Malaysia, it is important to understand the following about what has happened to the jobs and wages after NAFTA took effect.

- Growing trade deficits with Mexico and Canada have displaced production that supported 1,015,291 U.S. jobs since NAFTA took effect in 1994 (see Table 1-1b).
- Contrary to the rhetoric of most government officials and economists, industries that compete with imports from Mexico pay 1% to 5% more than export jobs (see Table 1-4 and Appendix Table 1-A1). This result is quite robust, and is confirmed with six different methods for computing average, trade-weighted wages.
- Workers with at most a high school education were particularly hard hit by growing trade deficits—they held 52% of jobs displaced; these workers make up 43% of the workforce.
- Most of the jobs displaced by NAFTA trade deficits are in the manufacturing sector, which employs a higher share of such workers than any other major industry (see Table 1-5).
- NAFTA displaced into lower-paying jobs 523,305 workers with a high school degree or less.
- Men, who make up 55.2% of the labor force, lost 649,048 job opportunities, or 63.9% of total jobs displaced due to NAFTA deficits.
- Women, who make up 47.8% of the labor force, were especially hard hit by rising imports in apparel: they lost 34,855 job opportunities, 67% of all positions displaced in the apparel sector.
- The 1 million job opportunities lost nationwide are distributed among all 50 states and the District of Columbia, with the biggest losers, in numeric terms: California (-123,995), Texas (-72,257), Michigan (-63,148), New York (-51,582), Ohio (-49,886), Illinois (-47,701), Pennsylvania (-44,173), Florida (-39,987), Indiana (-35,157), North Carolina (-34,150), and Georgia (-30,464) (see Table 1-2).
- The 10 hardest-hit states, as a share of total state employment, are: Michigan (-63,148, or -1.4%), Indiana (-35,157, -1.2%), Mississippi (-11,630, -1.0%), Tennessee (-25,588, -0.9%), Ohio (-49,886, -0.9%), Rhode Island (-4,482, -0.9%), Wisconsin (-25,403, -0.9%), Arkansas (-10,321, -0.9%), North Carolina (-34,150, -0.9%), and New Hampshire (-5,502, -0.9%) (Scott 2005, Table 1-3).

NAFTA is a free trade and investment agreement that provided investors with a unique set of guarantees designed to stimulate foreign direct investment and the movement of factories within the hemisphere, especially from the United States to Canada and Mexico. Furthermore, no protections were contained in the core of the agreement to maintain labor or environmental standards. As a result, NAFTA tilted the economic playing field in favor of investors, and against workers and the environment, resulting in a hemispheric "race to the bottom" in wages and environmental quality in the United States, Canada, and Mexico.

False promises

Proponents of new trade agreements that build on NAFTA and the Central American Free Trade Agreement (CAFTA) frequently claim that such deals create jobs and raise incomes in the United States. For example, the Office of the U.S. Trade Representative has cited "estimates that CAFTA could expand U.S. farm exports by $1.5 billion….[and that] manufacturers would also benefit." They also claim that the agreement will support "U.S. exports and jobs" (USTR 2005). These statements echo claims that were made by prior administrations and many economists more than a decade ago when NAFTA was first proposed. The USTR's office claimed in 1993 that "With NAFTA we anticipate 200,000 more export-related jobs by 1995" and that "wages of U.S. workers in jobs related to exports to Mexico are 12% *higher* than the national average" (USTR 1993, emphasis in the original). While it is technically true that export wages were higher than the average U.S. wage in all industries, in practice average wages in import industries (in 2000) where job displacement was concentrated were *higher* than in export industries.[3]

This section explores these issues and evaluates the effects of growing NAFTA trade deficits on U.S. workers by education, gender, and racial background.

Growing trade deficits after NAFTA

Predictions that NAFTA would lead to job creation and higher wages were based on forecasts that U.S. exports to Mexico would grow faster than imports. Such models assumed that increases in U.S. exports support job creation in the United States, and that increases in imports displace or dislocate U.S. jobs. For example, in one of the most widely cited studies, Hufbauer and Schott (1993, 14-21)[4] forecast that "for the foreseeable future" (Table 2.1) U.S. exports to Mexico would increase $16.7 billion, imports would increase $7.7 billion, and the trade balance would improve by $9 billion.[5] As a result "a gross total of 316,000 U.S. jobs will be created by NAFTA while a gross total of 145,000 U.S. jobs will be dislocated" (Hufbauer and Schott 1993, 20-21), resulting in a net gain of 171,000 jobs (*ibid,* Table 2, 16). DRI/McGraw Hill (1992)[6] estimated that 160,005 to 221,222 jobs would be created. In these models, improvements in the trade balance support job creation, and declines in the trade balance displace domestic jobs.

U.S. exports to Mexico and Canada actually increased $104 billion between 1993 and 2004, after NAFTA took effect, as shown in **Table 1-1a** (in constant 2004 dollars). However, imports increased $211.3 billion, and as a result, the trade deficit *increased* by $107.3 billion, rather than improving as predicted in the studies noted above. The United States had a small but relatively stable trade deficit with Canada and Mexico (combined) in the 1980s and early 1990s, as shown in **Figure 1-A**. After NAFTA took effect in 1994, the United States developed large and rapidly growing deficits with these trade partners.

Thus, the projections of growing trade surpluses with Mexico and Canada cited above have proven totally wrong. However, Hufbauer and Schott have changed their analytical methods and still claim that NAFTA resulted in net gains in job opportunities between 1993 and 2004. (See **Bias in the Revised Hufbauer-Schott Methodology** on p. 6.)

Table 1-1a
U.S. trade with Mexico and Canada since NAFTA took effect: 1993-2004
(billions of constant 2004 dollars)

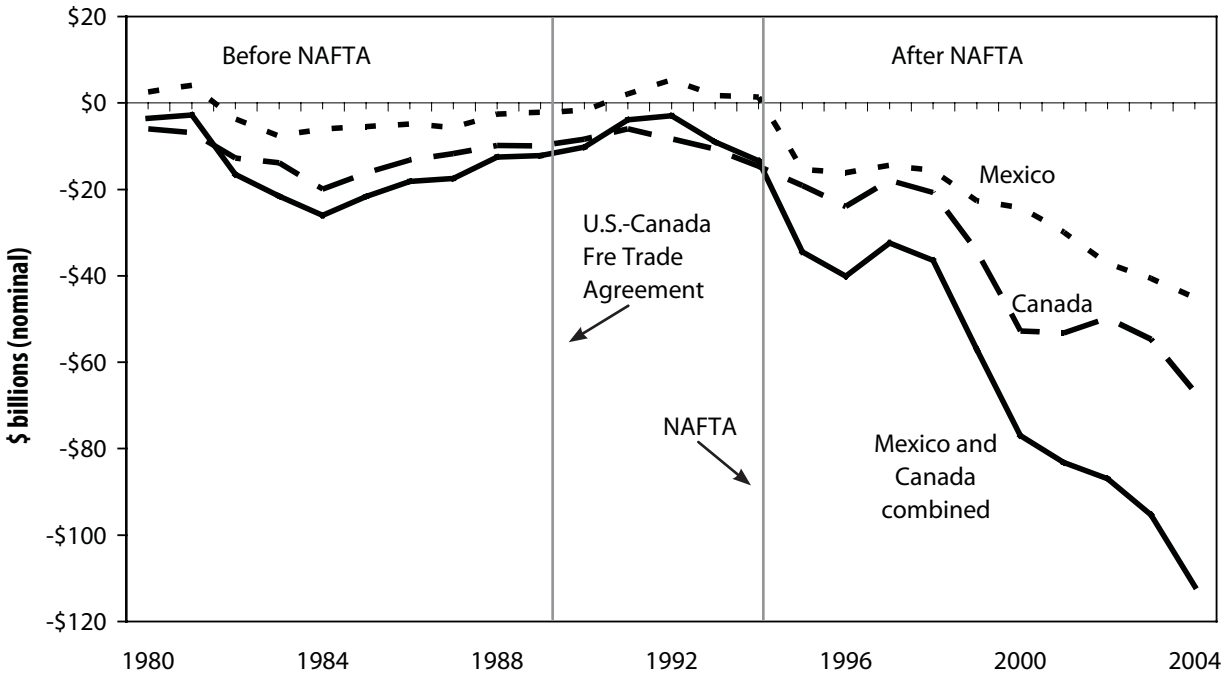
					Changes since 1993			
					Dollars			% change
Changes in U.S.-NAFTA trade	1993	1997*	1997**	2004	1993-97*	1997-2004**	1993-2004	1993-2004
Mexico								
Domestic exports	$41.1	$68.2	$67.4	$87.9	$27.0	$20.5	$46.8	114%
Imports	39.0	83.3	83.0	145.9	44.2	62.9	106.9	274%
Net exports	2.1	-15.1	-15.6	-58.0	-17.2	-42.5	-60.1	-2873%
Canada								
Domestic exports	$94.9	$132.8	$132.3	$152.2	$37.8	$19.9	$57.2	60%
Imports	115.8	163.9	163.6	220.3	48.0	56.7	104.4	90%
Net exports	-20.9	-31.1	-31.3	-68.1	-10.2	-36.8	-47.2	226%
NAFTA totals								
Domestic exports	$136.0	$200.9	$199.7	$240.1	$64.9	$40.3	$104.0	76%
Imports	154.9	247.1	246.6	366.2	92.3	119.6	211.3	136%
Net exports	-18.8	-46.2	-46.9	-126.2	-27.4	-79.3	-107.3	570%

* SIC-based industry definitions and deflators.
** NAICS-based industry definitions and deflators.

SOURCE: EPI analysis of Bureau of Labor Statistics and Census Bureau data.

FIGURE 1-A

U.S. trade with NAFTA countries, 1980-2004



SOURCE: U.S. Census Bureau.

Bias in the revised Hufbauer-Schott methodology

Gary Hufbauer and Jeffery Schott, both senior fellows at the Institute for International Economics, have reviewed and evaluated several pre-NAFTA forecasts of NAFTA's expected impacts on employment, and several recent assessments of NAFTA's actual impact (including prior studies by this author). In their 2005 update of their 1993 findings, they restate their 1993 forecast that 171,000 jobs would be gained based on a methodology similar to the one used in this report. They also develop a new *ex post* assessment that gives asymmetric treatment to the effects from exports and imports. On the export side, they use employment multipliers based on the average annual increase in U.S. exports to NAFTA countries of $12.5 billion per year between 1993 and 2003 and estimate that 100,000 jobs per year were gained. On the import side, they look only at the number of jobs certified as eligible for NAFTA-TAA assistance, "about 58,000 jobs per year." They conclude that the United States experienced a net gain of 42,000 jobs per year (100,000 less 58,000) as a result of NAFTA using these methods (Hufbauer and Schott 2005, 40-41).

Use of the NAFTA-TAA estimate in this calculation is incorrect for several reasons. First, Hufbauer and Schott erroneously include foreign exports in their analysis. Correcting this error lowers jobs gained duue to growing exports to 84,000 per year.* Second, the NAFTA-TAA program not only undercounts job displacement (as noted by Hufbauer and Schott), but also ignores jobs that would have been supported with new production but for the increase in imports. Comparing the number of jobs supported by exports estimated with

(CONT.) >>

Bias in the revised Hufbauer-Schott methodology

(C O N T I N U E D)

input-output multipliers with incomplete NAFTA-TAA data on job displacement based on a completely different methodology is completely inappropriate.

U.S. NAFTA imports increased $21 billion per year (Hufbauer & Schott, Table 1.2) between 1993 and 2003. Applying Hufbauer & Schott's original methodology yields 176,000 jobs displaced annually by growing imports, and net displacement of -92,000 jobs per year from growing NAFTA trade deficits. This result is identical with the findings in Table 1-1b of this study that 1,015,000 jobs (92,000 jobs per year) were displaced by growing NAFTA trade deficits between 1993 and 2004.**

Finally, increases in exports do not necessarily lead to the creation of new jobs if they represent parts previously used in assembly plants that relocated to Mexico or Canada. If parts production does not increase, no new jobs are created. The only accurate way to account for job gains and losses is to estimate the jobs content of both exports and imports and the net effect on employment in the United States, as Hufbauer and Schott did in their 1993 assessment.

The selective use of a new model that underestimates the jobs displaced by imports and overstates jobs gained through increased exports changes the yardsticks that Hufbauer and Schott (1993) established in their pre-NAFTA research and yields a biased and inaccurate result. Their conclusion that NAFTA resulted in actual gains in U.S. employment stands at odds with the changes in trade flows shown in Figure 1-A and Table 1-1b. They criticize the multiplier-based estimates of jobs displaced by imports in Scott (2003), despite the fact that this technique was employed in their previous study (Hufbauer and Schott 2005, 39, note 61).

The authors claim that their new jobs analysis validates the accuracy of their earlier forecasts of expected job gains from NAFTA (Hufbauer and Schott 2005, 40, Table 1.8), earlier criticism not withstanding. The new Hufbauer-Schott analysis is particularly surprising because Hufbauer previously disavowed the 1993 jobs forecast in an interview with the *Wall Street Journal*: "The best figure for the jobs effect of NAFTA is approximately zero…the lesson for me is to stay away from job forecasting" (Davis 1995).

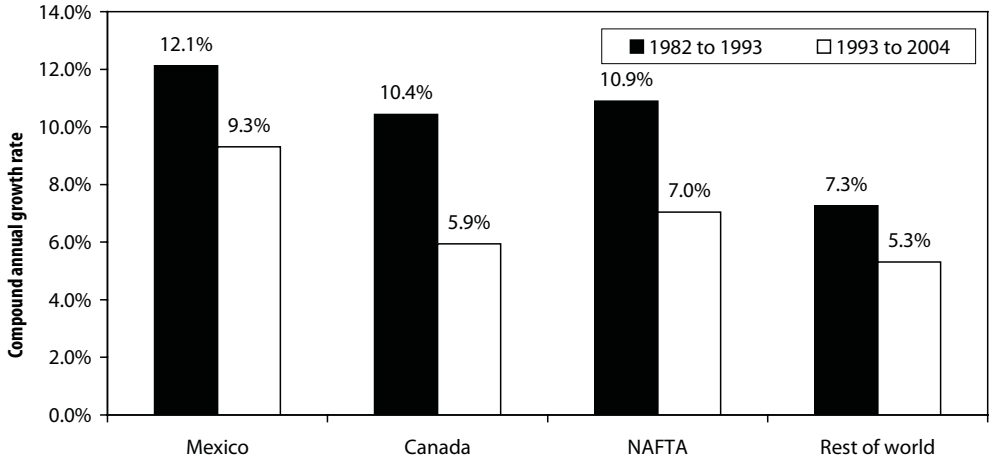
*Between 1992 and 2003, total exports to NAFTA countries increased $136.1 in current dollars (Hufbauer and Schott 2005, 20-21, Table 1.2), or about $12.4 million per year. However, this estimate includes foreign exports (or re-exports), goods not produced in the U.S. which do not support production or employment here. Re-exports rose from about 6% to 13% of U.S. NAFTA exports in this period. Domestic exports (excluding re-exports) increased only $9.9 billion per year, so using Hufbauer and Schott's own methodology, their estimate of jobs created by exports should be reduced to 84,000 jobs per year.

**Note that the trade data shown in Table 1-1a of this report are presented in current, 2004 dollars and therefore differ from Hufbauer and Schott's estimates.

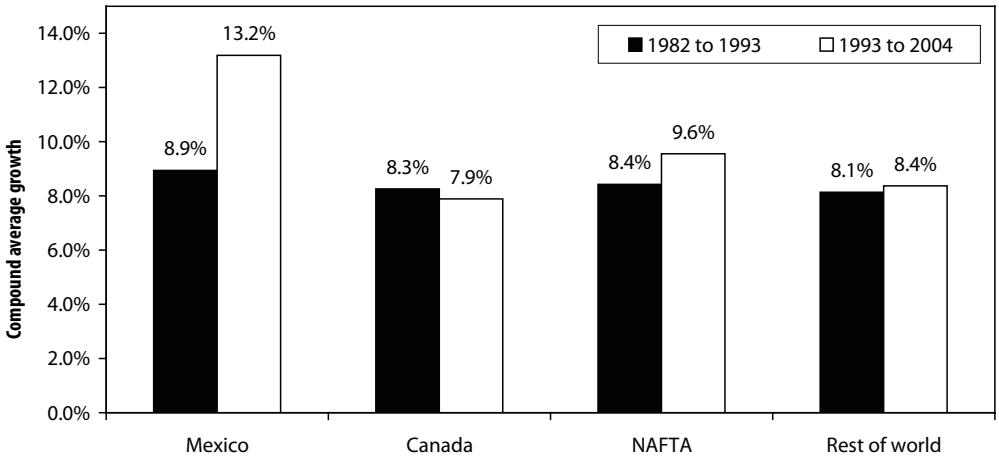
Total U.S. trade with Mexico and Canada has increased rapidly since the agreement took effect, during a period when it has experienced rapidly growing total trade flows and trade deficits. In 1993, more than one-quarter of U.S. imports came from Mexico and Canada, and those countries were the destination for nearly one-third of U.S. exports. NAFTA proponents claimed that it would help U.S. firms compete with low-cost imports from Asia and elsewhere in the world, by lowering production costs in the United States, Mexico, and Canada. According to the Office of the U.S. Trade Representative (1993), "Our competitors are expanding their markets in Europe and Asia. NAFTA is our opportunity to respond and compete…NAFTA will create jobs and improve our competitiveness."[7] In other words, U.S. producers would use cheaper labor in Mexico and Canada to compete with producers using goods or inputs from Asia. If this were true, U.S. exports to the rest of the world should have grown faster after NAFTA. However, the growth of U.S. exports to the rest of the world fell 2 percentage points (27%) after NAFTA, as shown in the top panel of **Figure 1-B**. The growth of U.S. exports to Mexico and Canada fell even faster after NAFTA, declining from 10.9% to 7.0%, a 36% decline (Figure 1-B, top).

FIGURE 1-B

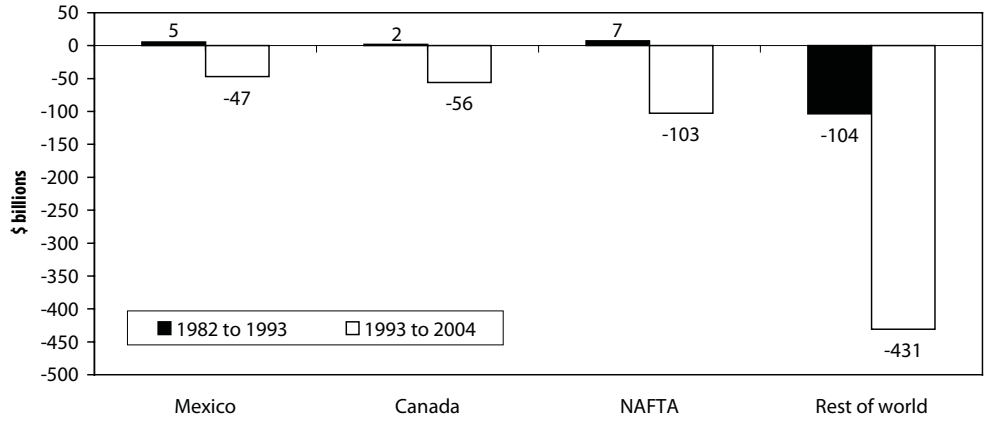
Exports to NAFTA countries slow more than exports to the rest of the world



Imports from Mexico grew rapidly after NAFTA took effect



Mexico and Canada responsible for one-fifth of the growth in U.S. trade deficit, 1993 to 2002



SOURCE: U.S. Census Bureau.

On the other hand, import growth from Mexico increased 50% (4.3 percentage points), while the growth of U.S. imports from the rest of the world only increased about three-tenths of a percentage point (growth of imports from Canada actually declined slightly), as shown in the middle panel of Figure 1-B. As a result, rapid growth of imports combined with slowing exports to the NAFTA countries to generate a growing U.S. trade deficit w. Mexico and Canada (Figure 1-B, bottom). The growth of the U.S. trade deficit with Mexico and Canada was responsible for about one-fifth of the growth in the total U.S. trade deficit between 1993 and 2004.[8] Thus, U.S. exports have grown more slowly since NAFTA took effect, and deeper integration with Mexico and Canada has not suppressed the growth of the trade deficit. These are primary indicators that NAFTA failed to improve the competitiveness of U.S. producers.

Significant and growing shares of U.S. exports to Mexico are apparently parts and components that are assembled into final products that are then returned to the United States. The volume of finished goods imported from Mexico—such as refrigerators, TVs, automobiles, and computers—has mushroomed under the NAFTA agreement. Many of these products are produced in the maquiladora export processing zones in Mexico, where parts enter duty-free and are re-exported to the United States, other countries, or other areas in Mexico as assembled products, with duties paid only on the value added in Mexico.[9]

Trade deficits and employment displacement

The impact of changes in trade on employment is estimated here by calculating the labor content of changes in the trade balance—the difference between exports and imports. If the United States exports 1,000 cars to Mexico, many American workers are employed in their production. If, however, the United States imports 1,000 cars from Mexico rather than building them domestically, then Americans who would have otherwise been employed in the auto industry will have to find other work.

It is also essential to look at changes in the *trade balance* when assessing the impacts of trade agreements because it is possible that no jobs will be created when some exports increase. For example, if a U.S. firm moves an auto assembly plant to Mexico and closes one in the United States, this could lead to an increase in U.S. auto parts *exports* to Mexico that would look beneficial in isolation. The U.S. Trade Representative (USTR) and others claimed those increases in exports "create" jobs (Hufbauer and Schott 1993, 20). In fact, if the parts used to be shipped to domestic auto assembly plants, and are now shipped to Mexico for assembly, this is not the case. If the total production of auto parts does not increase, then no new jobs are created. The proper way to correct for this problem is to subtract changes in imports from changes in exports, or in other words, the change in the trade balance.

The United States has experienced steadily growing global trade deficits for nearly three decades, and these deficits accelerated rapidly after NAFTA took effect on January 1, 1994, as shown in Figures 1-A and 1-B. Although U.S. domestic exports to its NAFTA partners have increased dramatically—with real growth of 114% to Mexico and 60% to Canada—growth in imports of 274% from Mexico and 90% from Canada overwhelmingly surpassed export growth, as shown in Table 1-1a (see Appendix on methodology and data sources for further details). The United States' net export deficit with these countries increased from $18.8 billion in 1993 to $126.2 billion in 2004, a 570% increase (all figures in inflation-adjusted 2004 dollars).

The growth of exports to Mexico and Canada since NAFTA took effect supported domestic production that maintained or created 941,459 U.S. jobs, as shown in **Table 1-1b**. However, the growth of imports displaced domestic production that supported 1,956,750 jobs. Changes in trade thus resulted in a net displacement of 1,015,290 job opportunities between 1993 and 2004, including 560,000 due to growing trade deficits with Mexico, and 456,000 with Canada. Findings from previous studies on the employment impacts of NAFTA by this author (Scott 2003) have been challenged by Hufbauer and Schott (2005). However, their revised methodology for estimating the employment effects of post-NAFTA trade flows is highly flawed (see **Bias in the Revised Hufbauer-Schott Methodology**, p. 6).

Table 1-1b
Total U.S. trade-related jobs supported or displaced by NAFTA: 1993-2004**

Changes in U.S.-NAFTA trade	1993	1997	1997*	2004	Changes since 1993 Jobs 1993-97*	1997-2004**	1993-2004	% change 1993-2004
Mexico								
Jobs supported by exports	379,746	604,532	682,078	887,100	224,786	205,022	429,808	134%
Jobs displaced by imports	350,361	741,406	829,320	1,427,648	391,045	598,328	989,373	307%
Job content of net exports	29,385	-136,874	-147,242	-540,548	-166,259	-393,306	-559,564	-1940%
Canada								
Jobs supported by exports	842,834	1,152,833	1,307,610	1,509,263	309,998	201,653	511,651	79%
Jobs displaced by imports	980,966	1,404,988	1,572,168	2,115,523	424,022	543,355	967,377	116%
Job content of net exports	-138,132	-252,155	-264,558	-606,260	-114,023	-341,703	-455,726	339%
NAFTA totals								
Jobs supported by exports	1,222,580	1,757,364	1,989,689	2,396,363	534,785	406,675	**941,459**	77%
Jobs displaced by imports	1,331,327	2,146,394	2,401,488	3,543,171	815,066	1,141,683	**1,956,750**	147%
Job content of net exports	-108,748	-389,029	-411,799	-1,146,808	-280,282	-735,008	**-1,015,290*** **	934%

* SIC-based industry definitions and deflators.
** NAICS-based industry definitions and deflators.
*** Includes jobs displaced in goods and services industries, 658,930 were in manufacturing alone.

SOURCE: EPI analysis of Bureau of Labor Statistics and Census Bureau data.

This study also provides a more complete measure of the employment impacts of changes in imports than studies and programs that try to identify actual displaced workers. For example, between 1992 and 2002 the NAFTA Trade Adjustment Assistance program (NAFTA-TAA—later merged into the regular TAA program) certified 525,000 workers (about 58,000 jobs per year) that were qualified for assistance as a direct result of rising imports from Canada or Mexico, or because their employer relocated production to one of those countries (Public Citizen 2005). This estimate does not include jobs that were indirectly displaced by rising imports, including those employed in businesses that supplied goods or services used in making the directly displaced imports. This study estimates that growing imports displaced production that would have supported about 178,000 jobs per year, more than three times the number certified by the NAFTA-TAA program. The job displacement estimates in Table 1-1 also include jobs that would have been created if imports hadn't grown, a measure of the opportunity cost of growing imports.

The majority of the net jobs displaced were in the manufacturing sector. Growing NAFTA trade deficits with Canada displaced 270,248 manufacturing jobs; growing deficits with Mexico displaced 388,682 manufacturing jobs, for a total of 658,930 manufacturing jobs displaced (64.9% of the total). The estimate that over 1 million jobs were displaced includes 356,361 positions outside of the manufacturing sector.[10] This includes many service-sector support jobs such as accounting, computer programming, and legal and financial services. Many of these support jobs could have been maintained in the United States even though manufacturing production was transferred to Mexico, when those transfers or plant expansions were made by U.S.-based multinationals. However, it is likely that some of those non-manufacturing

Table 1-2
NAFTA jobs supported or displaced by state, 1993-2004*
(ranked alphabetically)

	Changes due to growth in:				Changes due to growth in:		
	Exports (job supported)	**Imports** (jobs displaced)	**Net exports** (net jobs supported or displaced)		**Exports** (job supported)	**Imports** (jobs displaced)	**Net exports** (net jobs supported or displaced)
Alabama	16,872	33,470	-16,598	Nebraska	6,423	11,525	-5,101
Alaska	1,261	3,331	-2,070	Nevada	4,815	9,931	-5,116
Arizona	13,459	30,075	-16,616	New Hampshire	5,276	10,778	-5,502
Arkansas	8,907	19,228	-10,321	New Jersey	22,680	46,971	-24,291
California	102,511	226,466	-123,955	New Mexico	4,018	9,059	-5,042
Colorado	11,497	24,851	-13,354	New York	42,996	94,578	-51,582
Connecticut	11,399	22,947	-11,549	North Carolina	35,725	69,875	-34,150
Delaware	2,906	5,019	-2,113	North Dakota	1,782	3,320	-1,538
District of Columbia	865	1,919	-1,054	Ohio	51,512	101,398	-49,886
Florida	33,488	73,475	-39,987	Oklahoma	11,548	24,364	-12,817
Georgia	28,196	58,660	-30,464	Oregon	11,740	25,393	-13,653
Hawaii	1,935	4,136	-2,200	Pennsylvania	42,346	86,519	-44,173
Idaho	4,209	8,054	-3,845	Rhode Island	4,387	8,870	-4,482
Illinois	47,861	95,562	-47,701	South Carolina	19,376	34,010	-14,634
Indiana	33,973	69,130	-35,157	South Dakota	2,766	5,445	-2,679
Iowa	11,579	22,989	-11,409	Tennessee	21,243	46,831	-25,588
Kansas	8,431	16,818	-8,387	Texas	65,229	137,486	-72,257
Kentucky	16,285	31,083	-14,798	Utah	7,305	15,327	-8,022
Louisiana	9,512	22,590	-13,078	Vermont	2,279	4,547	-2,268
Maine	3,480	7,545	-4,064	Virginia	20,974	43,423	-22,450
Maryland	11,386	23,987	-12,601	Washington	14,688	31,203	-16,515
Massachusetts	21,263	44,685	-23,422	West Virginia	5,933	11,918	-5,984
Michigan	55,157	118,305	-63,148	Wisconsin	26,817	52,221	-25,403
Minnesota	20,410	39,689	-19,278	Wyoming	1,620	3,719	-2,099
Mississippi	8,937	20,567	-11,630				
Missouri	19,915	38,481	-18,566				
Montana	2,285	4,975	-2,691	**Total U.S.**	**941,459**	**1,956,750**	**-1,015,290**

* Includes jobs displaced in both traded and non-traded goods industries.

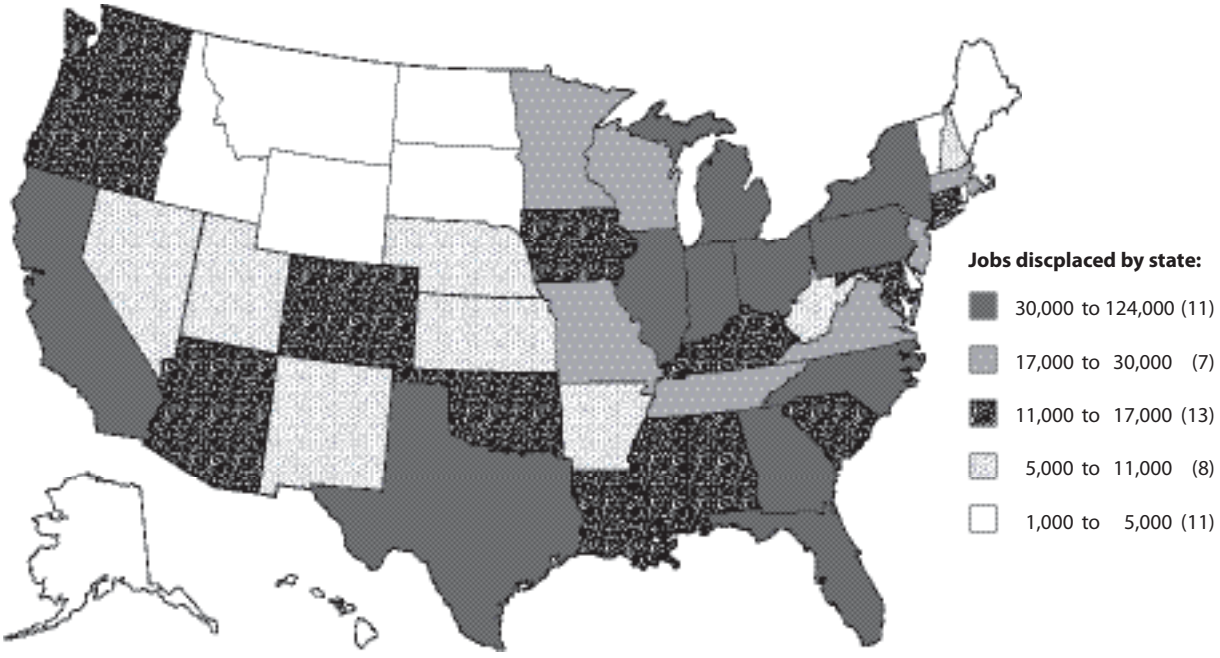
SOURCE: EPI analysis of Bureau of Labor Statistics and Census Bureau data.

jobs were displaced by growing trade deficits, especially in plants owned by MNCs based outside of the United States. Thus, the number of manufacturing job-opportunities displaced by growing NAFTA trade deficits provides a lower-bound estimate of total employment displaced by growing trade deficits after NAFTA took effect.[11]

Growth in trade deficits after NAFTA took effect reduced demand for goods produced in every region of the United States and has led to job displacement in all 50 states and the District of Columbia, as shown in **Table 1-2** and **Figure 1-C**.[12] Jobs displaced due to growing NAFTA trade deficits ranged as high as 1.4% of total employment in states such as Michigan, as shown in **Table 1-3**. Between 2004 and 2005, the U.S. goods trade deficit with Mexico and Canada increased 14% (U.S. Census Bureau 2006), likely causing double-digit growth in job displacement in 2005.

FIGURE 1-C

NAFTA costs jobs in every state



SOURCE: EPI Analysis of Bureau of Labor Statistics and Census Bureau data.

Rapid expansion of the U.S. trade deficit with Mexico, Canada, and the world as a whole since NAFTA took effect in 1994 has contributed to the contraction of U.S. manufacturing industries, which lost 3.3 million jobs between 1998 and 2004 (see also Bivens 2004). This restructuring of domestic output has other costs that are nearly always ignored. For manufacturing workers displaced in import-competing industries, average wages of those who were reemployed were 11% to 13% lower than their pre-displacement wages (Kletzer 2001, 104, Table D2). More than one-third of those displaced workers were not reemployed and apparently dropped out of the labor force altogether. However, the wage experience of post displacement workers varies widely; more than one-third have higher earnings than in their pre-displacement jobs, and more than 25% report wage losses of more than 30%. Kletzer's findings are consistent with the wage analysis presented in the next section.

Trade, wages, and labor force demographics

This section will show that the growth of trade deficits with Mexico and Canada shifts jobs from better paid traded goods industries into jobs in non-traded sectors where wages are significantly lower, on average. It will also show that, for trade with Mexico, average wages in import-competing industries were higher than those in export industries. Thus, the growth in the overall volume of trade (imports + exports) with Mexico substituted lower paying export jobs for higher paying jobs in import-competing industries.

This section also demonstrates that the USTR's (1993) prediction that workers would benefit from NAFTA because wages in export industries were higher than the national average was wrong for two reasons. First, the USTR

Table 1-3
NAFTA jobs supported and displaced by state, 1993-2004*
(ranked by share of total jobs displaced in 2004)

	Changes due to growth in:			
			Net exports	
	Exports (job supported)	**Imports** (jobs displaced)	(net jobs supported or displaced)	(net jobs as a share of total state employment in Dec. 2004)
Michigan	55,157	118,305	-63,148	-1.4%
Indiana	33,973	69,130	-35,157	-1.2%
Mississippi	8,937	20,567	-11,630	-1.0%
Tennessee	21,243	46,831	-25,588	-0.9%
Ohio	51,512	101,398	-49,886	-0.9%
Rhode Island	4,387	8,870	-4,482	-0.9%
Wisconsin	26,817	52,221	-25,403	-0.9%
Arkansas	8,907	19,228	-10,321	-0.9%
North Carolina	35,725	69,875	-34,150	-0.9%
New Hampshire	5,276	10,778	-5,502	-0.9%
Alabama	16,872	33,470	-16,598	-0.9%
Oklahoma	11,548	24,364	-12,817	-0.9%
California	102,511	226,466	-123,955	-0.8%
Oregon	11,740	25,393	-13,653	-0.8%
Kentucky	16,285	31,083	-14,798	-0.8%
Illinois	47,861	95,562	-47,701	-0.8%
Wyoming	1,620	3,719	-2,099	-0.8%
West Virginia	5,933	11,918	-5,984	-0.8%
South Carolina	19,376	34,010	-14,634	-0.8%
Iowa	11,579	22,989	-11,409	-0.8%
Georgia	28,196	58,660	-30,464	-0.8%
Pennsylvania	42,346	86,519	-44,173	-0.8%
Texas	65,229	137,486	-72,257	-0.8%
Vermont	2,279	4,547	-2,268	-0.7%
Massachusetts	21,263	44,685	-23,422	-0.7%
Utah	7,305	15,327	-8,022	-0.7%
Minnesota	20,410	39,689	-19,278	-0.7%
South Dakota	2,766	5,445	-2,679	-0.7%
Connecticut	11,399	22,947	-11,549	-0.7%
Arizona	13,459	30,075	-16,616	-0.7%
Missouri	19,915	38,481	-18,566	-0.7%
Louisiana	9,512	22,590	-13,078	-0.7%
Alaska	1,261	3,331	-2,070	-0.7%
Maine	3,480	7,545	-4,064	-0.7%
Idaho	4,209	8,054	-3,845	-0.7%
Montana	2,285	4,975	-2,691	-0.6%
New Mexico	4,018	9,059	-5,042	-0.6%
Kansas	8,431	16,818	-8,387	-0.6%
Virginia	20,974	43,423	-22,450	-0.6%
New York	42,996	94,578	-51,582	-0.6%
Washington	14,688	31,203	-16,515	-0.6%
Colorado	11,497	24,851	-13,354	-0.6%
New Jersey	22,680	46,971	-24,291	-0.6%
Nebraska	6,423	11,525	-5,101	-0.6%
Florida	33,488	73,475	-39,987	-0.5%
Maryland	11,386	23,987	-12,601	-0.5%
Delaware	2,906	5,019	-2,113	-0.5%
North Dakota	1,782	3,320	-1,538	-0.5%
Nevada	4,815	9,931	-5,116	-0.4%
Hawaii	1,935	4,136	-2,200	-0.4%
District of Columbia	865	1,919	-1,054	-0.2%
Total U.S.	**941,459**	**1,956,750**	**-1,015,290**	**-0.8%**

* Includes jobs displaced in both traded and non-traded goods industries.

SOURCE: EPI analysis of Bureau of Labor Statistics and Census Bureau data.

incorrectly assumed that an improving trade balance would push workers from lower-paying jobs in other industries to higher-paying jobs in export industries. Because the trade deficit increased, rather than decreased, workers were pushed out of traded-goods industries into those lower-paying other sectors. Second, the USTR also assumed that trade expansion moves workers from import-competing industries to export industries with higher wages, but because wages were actually higher in import-competing industries trading with Mexico, pure trade expansion (proportionate increases in exports and imports) actually lowered average wages in that case.

This section analyzes the effects of changing trade flows with Mexico and Canada on wages and worker characteristics of those affected by growing trade deficits (see Appendix for further details on methodology). Average wages by sector were used to estimate average import and export wages. The results of the wage analysis are summarized in **Table 1-4a**.

The first column in Table 1-4a reports average import and export wages for import and export industries in 2004.[13] The second column compares the percent difference between import and export wages for U.S. trade with Mexico, Canada, and NAFTA combined using the three different weighting systems described above. One of the most important findings in this study is that, for trade with Mexico, average wages in exporting industries were lower than in import-competing industries, even after excluding highly paid oil and gas workers (who received average wages of $1,458 per week), as shown in the highlighted numbers in column 4. Average wages in industries that exported to Mexico were $799 per week, wages in import-competing industries were $811 per week, a $14 per week (1.8%) premium.

These results are quite robust, and are replicated using six different trade and employment weights (shown in Appendix Table 1-A1). The average wage comparison for Canada conforms to the standard trade model, with average wages in exporting industries higher than in import-competing sectors.

Wages in industries producing goods traded with Mexico or Canada are also significantly higher than those in the rest of the economy. Wages in import-competing and export industries were 16% to 19% higher than average wages in other non-traded industries, as shown in last few rows of Table 1-4a (denoted "Addendum"). Average wages in all non-traded goods industries were $683 in 2004. A similar non-trade/traded wage gap was found for U.S.–Canada trade as well.

The growth of trade deficits with Mexico (and Canada) implies that even with near full employment in 2000, there were more workers employed in other, non-traded sectors of the economy and that total payments to effected workers were lower than they would otherwise have been for two reasons. First (for trade with Mexico), as trade expanded, imports displaced more jobs in higher-paying industries than exports created in those industries (the reverse was true for trade with Canada). Second, the growth in the trade deficit reduced the demand for labor in trade-goods industries, and at full employment, those workers were employed in other sectors where, on average, they earned much lower wages.

Total wage gains and losses for all trade-affected jobs are estimated in **Table 1-4b** (bottom half). The growth of exports to Mexico and Canada generated total wage premiums of almost $2.6 billion and $3.0 billion, respectively. However, the growth of imports eliminated wage premiums of about $6.7 billion for Mexico and $6.5 billion for Canada. Thus, there is a nationwide loss of $7.6 billion in wage premiums that would have been earned had trade been balanced. Net losses associated with pure substitution of export jobs for import job opportunities for trade with Mexico equaled $-323 million, as shown in column 2.

Demographic impacts of growing trade deficits

The models used in this study were extended to examine the effects of growing NAFTA trade deficits on different demographic groups, including breakdowns by education levels, gender, wage distributions, and race (see Appendix for details). These results were then consolidated for the entire period of analysis, and aggregate results are reported in **Table 1-5.**

Education

Workers with a high school degree or less were particularly hard hit by rising NAFTA trade deficits. The manufacturing sector, which produces most traded goods, employs a much higher-than-average share of such workers in the labor force. The shares of workers with different levels of educational attainment in the total U.S. labor forces are shown in column 1. The number and shares of workers with these levels of education displaced by growing trade deficits with Mexico and Canada after NAFTA took effect are shown in columns 2 and 3, respectively. Finally, the educational attainment of workers displaced by growing trade deficits after NAFTA is compared with national averages in column 4. For example, growing trade deficits displaced 3.4% more workers with less than a high school degree and 5.2% more workers with

Table 1-4a
Trade and wages in importing and exporting industries under NAFTA in 2004* (all industries excluding oil)**

	Average wages	Percent difference*** (exports less imports)
TRADED INDUSTRIES (Total Jobs weighted)		
Imports		
Canada	$795	
Mexico	$813	
NAFTA	$802	
Exports		
Canada	$811	2.1%
Mexico	$799	-1.8%
NAFTA	$807	0.5%
Addendum		
Non-traded industries**	**$683**	**Percent difference from non-traded wages**
Versus:		
Mexico imports	$130	19%
Mexico exports	$116	17%
Canada imports	$112	16%
Canada exports	$128	19%

Table 1-4b
Wage income loss associated with growing trade deficits with Mexico

Changes in U.S.-NAFTA trade-related employment***	
Net jobs gained due to growing exports from Mexico	429,808
Net jobs displaced by imports from Mexico	989,373
Net jobs gained due to growing exports from Mexico	511,651
Net jobs displaced by imports from Mexico	967,377
Changes in U.S. wage income ($ million)	
A. Net wages gained though growing exports to Mexico	$2,585
B. Net wages displaced though growing imports	$6,696
Addenda: Net losses due to substitution 429,808 export jobs for like number of import jobs (included above)	*-$323*
C. Net wages gained though growing exports to Mexico	$2,977
D. Net wages displaced though growing imports	$6,456
Total change in wage bill (A - B + C - D)	**-$7,588**

* See Appendix Table 1-A1 for further details and average wages computed using alternative weighting systems.
** Excluding oil and gas, including refined petroleum products, NAICS industries 211 and 3241, respectively.
*** Ratio of export to import wages, less one.
**** Excluding agriculture and manufacturing industries.
***** Table 1-1b, above.

SOURCE: EPI anaylsis of Quarterly Census of Wages and Employment, BLS, USITC data.

Table 1-5
NAFTA trade-related job displacement, 1993-2004
(demographic analysis*)

	Changes due to growth in:			
		Net exports		Difference from labor force shares
	Labor force share	(jobs displaced)	share of total	net exports
Education				
Less than high school	11.1%	-147,232	14.5%	3.4%
High school	31.8%	-376,073	37.0%	5.2%
Some college	29.6%	-268,312	26.4%	-3.1%
College +	27.5%	-223,675	22.0%	-5.5%
TOTAL		-1,015,291	100.0%	
Sex				
male	55.2%	-649,048	63.9%	8.7%
female	47.8%	-366,242	36.1%	-11.7%
TOTAL		-1,015,291	100.0%	
Wage category				
less than $7.23 per hour	16.4%	-126,185	12.4%	-4.0%
$7.23 to 11.99 per hour	30.6%	-322,714	31.8%	1.2%
$12.00 to $17.81per hour	25.1%	-262,395	25.8%	0.8%
$17.81 to $30.84 per hour	20.8%	-224,602	22.1%	1.3%
more than $30.84 per hour	7.2%	-79,393	7.8%	0.7%
TOTAL		-1,015,290	100.0%	
Race				
Non-Hispanic white	70.9%	-703,003	69.2%	-1.7%
Black	11.5%	-111,908	11.0%	-0.5%
Hispanic	12.3%	-139,520	13.7%	1.4%
other	5.2%	-60,853	6.0%	0.8%
TOTAL		-1,015,285	100.0%	

* Totals vary slightly due to rounding errors.

SOURCE: EPI analysis of Bureau of Labor Statistics and Census Bureau data.

exactly a high school degree. Workers with some college or more took a proportionately smaller hit, as those workers tend to be less intensively employed in traded goods than in the rest of the economy.

Wages in traded goods industries were significantly higher than in non-traded industries, as shown above. Workers with a high school degree and below are particularly hard hit by growing trade deficits with Mexico and Canada, because larger-than-average shares of these workers are pushed out of high-wage jobs in traded goods industries.

Within manufacturing in particular, 51.5 % of workers have a high school degree or less, while such workers made up only 42.9 % of the labor force as a whole. Hence, the manufacturing sector employs 20.1% more of these workers than other sectors of the economy. As noted above, nearly two-thirds of the jobs displaced by growing trade deficits with Mexico and Canada were in manufacturing, which is one of the best sources of good jobs with good benefits for workers with a high school degree or less.[14] These workers were especially hard hit by job displacement associated with rising NAFTA trade deficits.

Gender

Males were 63.9% of the workers displaced by growing trade deficits with Mexico and Canada, while they made up only 55.2% of the total labor force, an 8.7 percentage point gap, or 15.8% more than other sectors of the economy. Likewise, only 36.1% of displaced workers were female, though women made up 47.8% of the labor force. Female workers were particularly hard hit within several specific industries, such as the apparel sector, where they held two-thirds of jobs displaced (35,000). The results are at least partially explained by the fact that two-thirds of the employment displaced by these growing trade deficits were in manufacturing, as noted above. Manufacturing employs a higher-than-average share of men, but employment of women and workers from minority groups is much higher in sectors such as apparel production.

Wage distribution

Jobs were sorted into five different wage ranges, based on the distribution of weekly wages in each industry (see Appendix). The bottom wage groups shown in Table 1-5 make up 93% of the labor force, broken into segments that cover 16% to 30% in each group. The top earners, those making more than $30.83 per hour (about $64,000 per year), made up only 7% of the workforce. Growing NAFTA trade deficits displaced fewer jobs in the lowest-paying wage group (less than $7.23/hour), 4 percentage points (24%) less than the share of such workers in the national labor force, as shown in the last two columns in Table 1-5. On the other hand, 31.8% of net jobs displaced paid between $7.23 and $11.99 per hour (the second-lowest wage group), 1.2 percentage points more than the national average (30.6%), or 4% higher. The largest losses, on a proportional basis, were absorbed by workers in the top wage group, who earned more than $30.83 per hour, and their share of the net job displacement was 7.8%, 0.6 percentage points (9.4%) more than the national average (7.2%). These results reinforce the findings in Table 1-4a, which showed that jobs displaced by growing trade deficits pay more than other jobs in the economy.

The interaction of gender, wage, and education results in Table 1-5 are consistent with changes in wage inequality observed since 1989. For example, between 1989 and 2003, the 90/50 wage gap increased more for men (12.5 percentage points) than for women (7.7 percentage points) (Mishel, Bernstein, and Allegretto 2005, Table 2.16). Growing trade deficits after NAFTA also displaced more higher-paying jobs for men, which apparently contributed to this gap. The divergence in wage trends for men and women was particularly strong after 2000. The total U.S. trade deficit increased 21% ($95 billion) between 2000 and 2003. The male 90/50 gap increased 2.3 percentage points while the female 90/50 gap was unchanged in this period.

This demographic analysis is consistent with other results in this study: growing trade deficits after NAFTA took effect had a large negative impact on male workers lacking post-secondary education, reducing the supply of relatively good jobs and pushed them into lower paying positions. For example, in manufacturing, the most trade-impacted sector of the economy, workers with less than a high school degree earned $0.75 per hour (8.3% more) than comparable workers employed in other industries. Likewise, high school educated workers earned $1.27 per hour (10.5%) more in manufacturing than in other sectors.[15]

Manufacturing has higher productivity than other sectors of the economy (U.S. Department of Labor 2006a), and higher unionization rates (U.S. Department of Labor 2006b), allowing workers to earn a higher share of the higher marginal product of their labor in this sector. NAFTA-related job displacement pushed the majority of those workers into lower paying jobs, hurting those least able to afford it.

NAFTA and the economic environment in North America

Many factors have contributed to the growth of U.S. trade deficits with Mexico, Canada, and the rest of the world since 1993. This section examines some of the other causes of these deficits to provide a broader perspective on NAFTA's role in their growth.

The United States, Canada, and Mexico were engaged in a process of integration that began well before NAFTA took effect. Formal extensions of U.S. economic integration with Canada began with the 1965 Canada-U.S. auto pact and continued with the 1989 Canada-U.S. Free Trade Agreement (C-USFTA). In Mexico, integration began with economic reforms adopted following its massive debt crisis in the mid-1980s (the petro-dollar crisis), followed by Mexico's accession to GATT in 1986 (Faux 2006, 40-41).[16] These reforms included market opening, deregulation, and sale of state-owned enterprises required by the International Monetary Fund (IMF) in exchange for bail-out assistance. Proponents of NAFTA from the Clinton Administration have argued that the main purpose of the agreement was to lock these reforms in place within Mexico to provide a more stable environment for continued integration. In the view of former Clinton economic advisor Gene Sperling, "NAFTA helped Mexico make a strong economic recovery in the second half of the 1990s because it prevented the government from pulling back on its important economic reforms and resorting to protectionism as it did after the 1982 peso crisis" (Sperling 2005, 46).

Others have argued that NAFTA provided a unique set of guarantees to foreign investors that stimulated the construction of thousands of new factories dedicated to export production largely destined for U.S. markets (resulting in substantial plant closures in the United States). While it is difficult to completely disentangle the particular effects of NAFTA from the broader process of regional integration, it is clear that if NAFTA had not been passed by the United States, this integration process would have continued.

Between 1980 and 1994 U.S. trade with Mexico was roughly balanced, as shown in Figure 1-A. The United States did develop a sizeable trade deficit with Canada in this period, but that deficit was largely eliminated by 1994 as well. After NAFTA, there was an abrupt structural shift in these trends. The U.S. trade deficit with both Mexico and Canada began to decline after NAFTA and followed a steadily declining trend thereafter.

A number of factors contributed to changes in these trade patterns, chief among them were shifts in bilateral exchange rates, changes in real manufacturing wages relative to those in the United States, and the growth of foreign direct investment (FDI). However, each of these was related, at least in part, to the implementation of NAFTA.

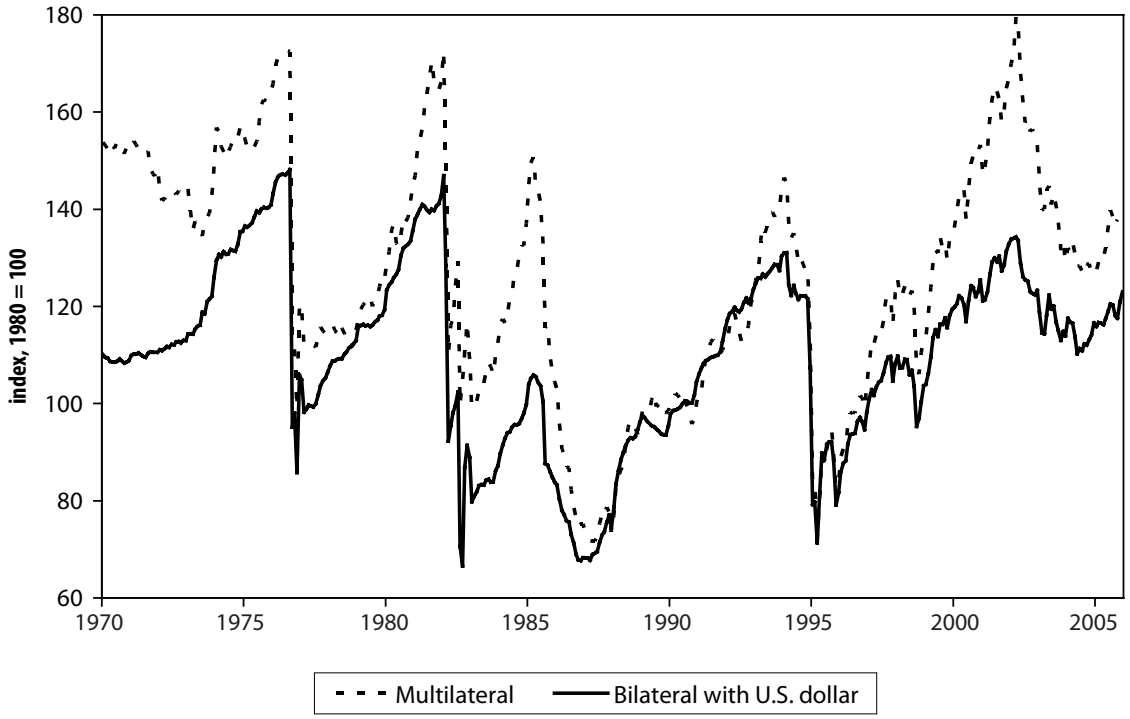
Mexico has experienced large, periodic swings in its real (inflation-adjusted) exchange rate, as shown in **Figure 1-D**.[17] Both bilateral (dollar/peso) and multilateral indexes are shown. These shifts have been closely linked to financial crises, especially the petro-dollar collapse in the 1982, after the decline of oil prices, and the peso crisis of 1994-95. The peso lost about two-thirds of its value relative to the U.S. dollar in 1982, appreciated steadily from 1987 to 1993, and fell about 50% in 1994 in the post-NAFTA financial crisis. The multilateral and bilateral peso-dollar series diverge in the post-NAFTA era due to the sharp rise in the U.S. dollar during this period. The cost of these calamities for Mexico's economy and its workers has been exacerbated by a steadily upward drift in the peso's real, multilateral value since the mid-1980s.

The over-valued peso has been intentionally used as an external constraint on inflation, and in that regard it has worked extremely well (Blecker 2005). Inflation fell from around 100% per year in the Salinas era to 7% just prior to the 1994 collapse and to 3% in 2005. However, this policy has been very costly for most workers in Mexico. Weak labor demand and rapid structural change, including the loss of more than 1 million jobs in the rural economy (see Mexico analysis starting on p. 33 in this report), have led to stagnant or falling real wages and rising global trade and current account deficits in Mexico. Since NAFTA took effect, the over-valued peso reduced the cost of consumer goods from China and around the world for Mexican consumers, leading to surging imports. Mexico experienced rapidly growing current account deficits between 1995 and 2000 as a result of peso appreciation, but these deficits have receded following a substantial peso depreciation that began in 2002.

Several factors have contributed to Mexico's large and growing trade surplus with the United States since NAFTA took effect despite the growing over-valuation of the peso over the long term. The real value of the peso fell sharply in the critical early years after NAFTA took effect, as shown in Figure 1-D. The sharp decline in the relative costs of production provided an incentive for firms to move plants to Mexico to produce for export to the United States. Wage suppression and rapidly growing capital inflows also stimulated the growth of Mexico's exports to the United States, as noted below.

FIGURE 1-D

Real value of the Mexican peso, January 1970 - December 2005



SOURCE: Blecker (2005).

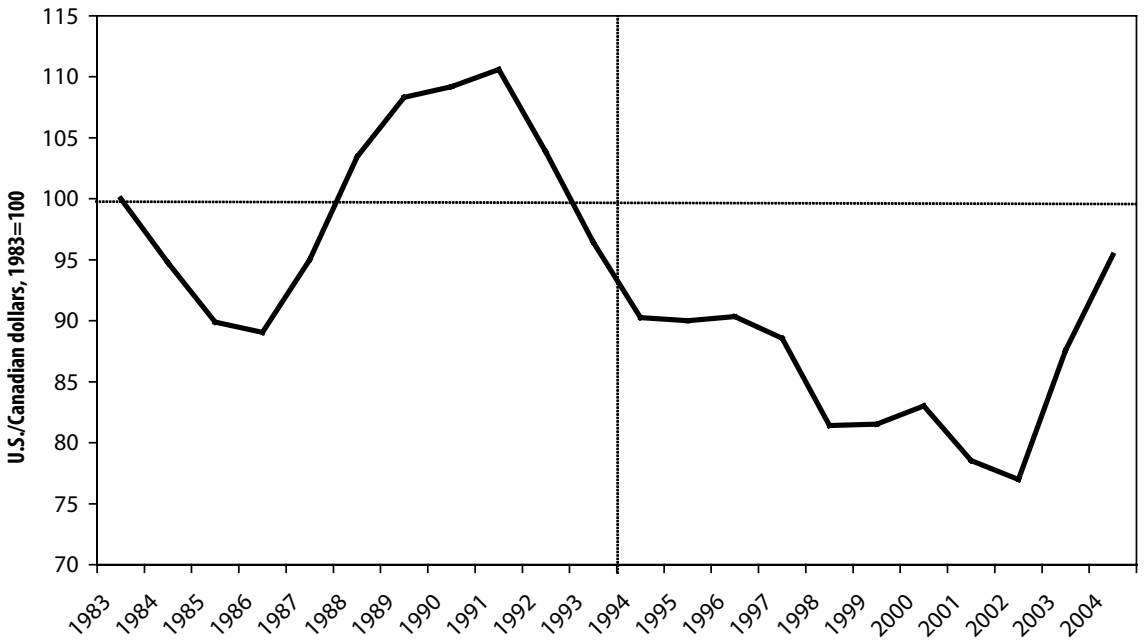
A sharp fall in the Canadian dollar since 1991, two years after the C–USFTA took effect, also dramatically lowered the costs of production in Canada, relative to the United States, as shown in **Figure 1-E.** These periods of devaluation in both countries occurred near the dates when free trade agreements were implemented with each country. In Mexico, a pre-NAFTA surge in FDI bid up the peso, but this also resulted in widening global (and bilateral) current account deficits. A substantial share of its imports in this period was capital goods that were used in the rapid build-up in export production capacity in this period. However, Mexico's inability to finance these deficits ultimately led to the 1994-95 peso crisis. Blecker (1997) argues:

> The peso had to be devalued in order to implement the Mexican strategy for export-led growth that NAFTA was intended to promote—a strategy that was pushed on Mexico by the U.S. government and the U.S. corporate interests that stood to profit from this trade agreement.

Other authors claim: "rather than causing the peso crisis, it appears that NAFTA facilitated a quick resolution and contributed to Mexico's more rapid growth in the late 1990s by locking in Mexico's commitment to open markets" (Burfisher, Robinson, and Thierfelder 2001, 133). While there is no disputing the fact that NAFTA locked Mexico into a "neoliberal" development model (Faux 2006; Salas, Part 2 in this report), Mexico has not experienced more rapid growth after NAFTA. As Salas shows in Part 2 of this report (Table 2-1), Mexico experienced real, average annual GDP growth rates of 6.6 % per year or more between 1950 and 1980. Aside from the lost decade of the 1980s (after the petro-dollar crisis of 1982), Mexico experienced its lowest average growth rate after NAFTA took effect, falling to 2.8% per year between 1994 and 2003.

FIGURE 1-E

Real U.S./Canadian exchange rate, 1983-2004



SOURCE: IMF International Financial Statistics.

The real exchange rate is only one determinant of the relative costs of inputs purchased by export-oriented producers in Mexico and Canada. NAFTA created an integrated, regional economy. In many cases, U.S. firms have shifted production of relatively labor-intensive activities employing relatively high-wage workers, such as motor vehicle assembly, to Mexico (and Canada), and exported components made with lower-cost labor to these new locations. Labor is the most costly input to production in such plants, so the U.S. dollar-cost of labor in Mexico and Canada is a major determinant in plant location decisions by multi-national companies (MNCs).[18] Hourly compensation costs in U.S. dollars in Canada and Mexico fell sharply after the C-USFTA and NAFTA took effect (**Figure 1-F)**.

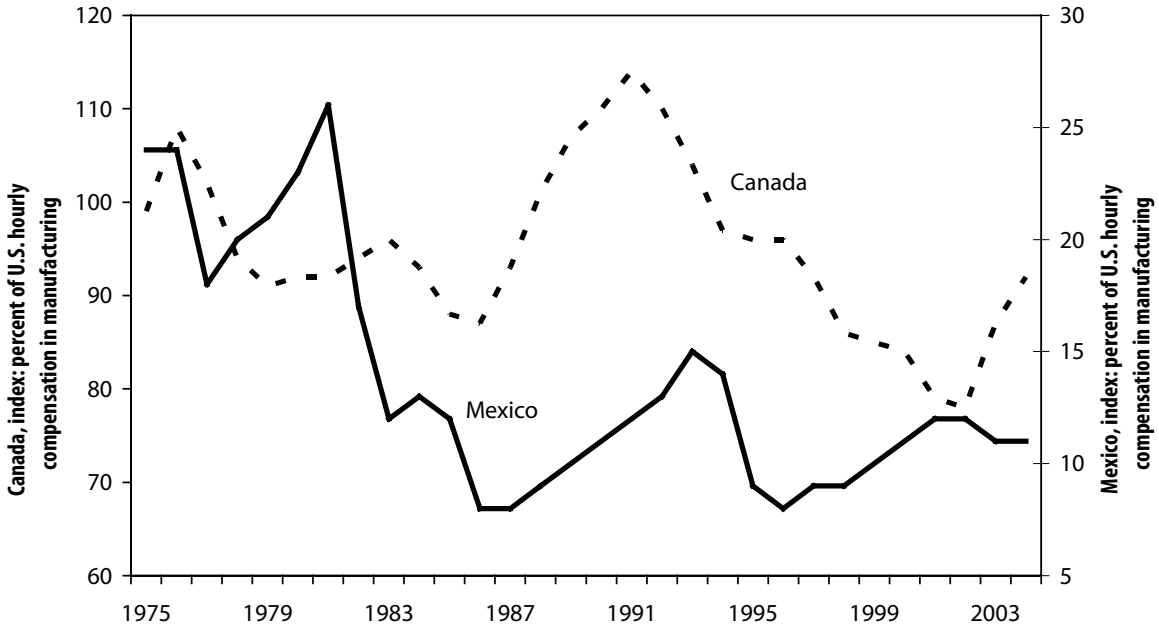
Dollar costs of manufacturing wages in Mexico have remained well below their 1994 peak, as shown in Figure 1-F (declining 27% between 1993 and 2004). This reflects general weakness of labor demand in Mexico, which is linked to the broader consequences of NAFTA in that country (see Salas, Part 2 in this report, and Audley et al. 2003). Dollar costs of labor in Canada also began to fall shortly after implementation of C-USFTA in 1989, declining 19% between 1991 and 2004), although they have increased in the past two years as the Canadian dollar has gained value.

Declines in the real value of currencies and manufacturing wages in Mexico and Canada after their entry into regional FTAs with the United States greatly increased their attractiveness to foreign investors. NAFTA also prohibited governments from imposing restrictions such as local content requirements and local R&D sourcing and provided an expansion of investor rights in the NAFTA investment chapter, thus reducing the costs of and risks associated with foreign investment. As a result, the flow of FDI into each country rose rapidly after NAFTA. FDI in Mexico soared more than four-fold in the decade after NAFTA, relative to the prior decade, as shown in **Figure 1-G**.

FDI in Canada was already growing in the 1980s. After a brief falloff following the U.S. recession in 1990, the FDI growth rate doubled after NAFTA took effect (**Figure 1-H**).

FIGURE 1-F

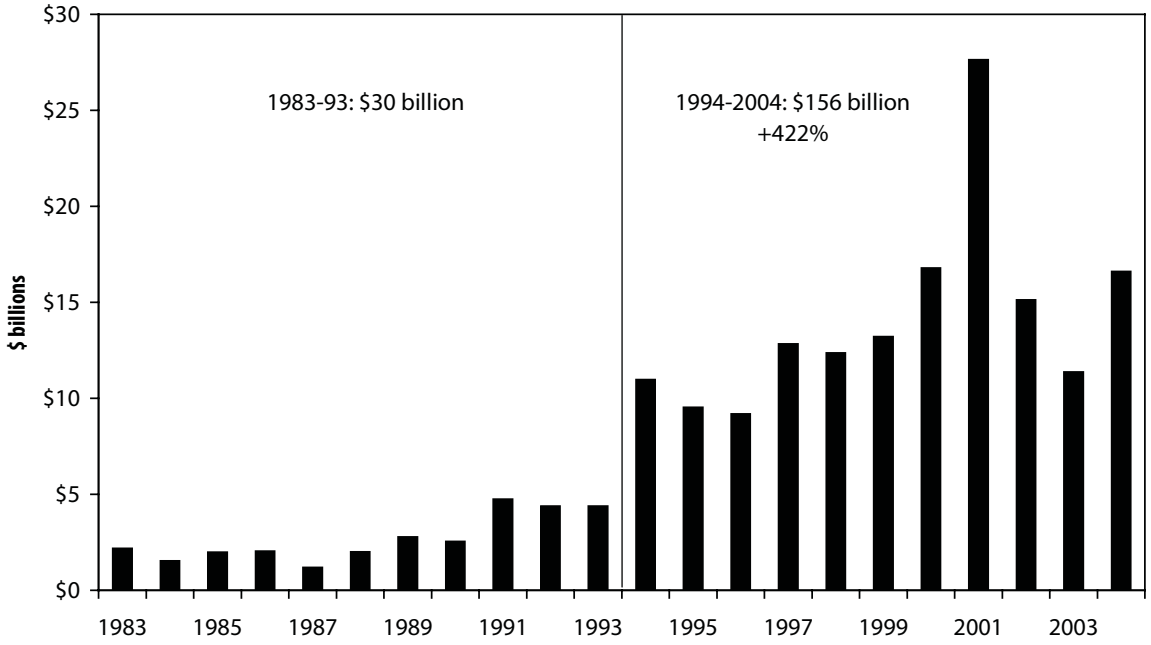
Indexes of hourly compensation costs in U.S. dollars for production workers in manufacturing



SOURCE: EPI analysis of Foreign Labor Statistics from BLS.

FIGURE 1-G

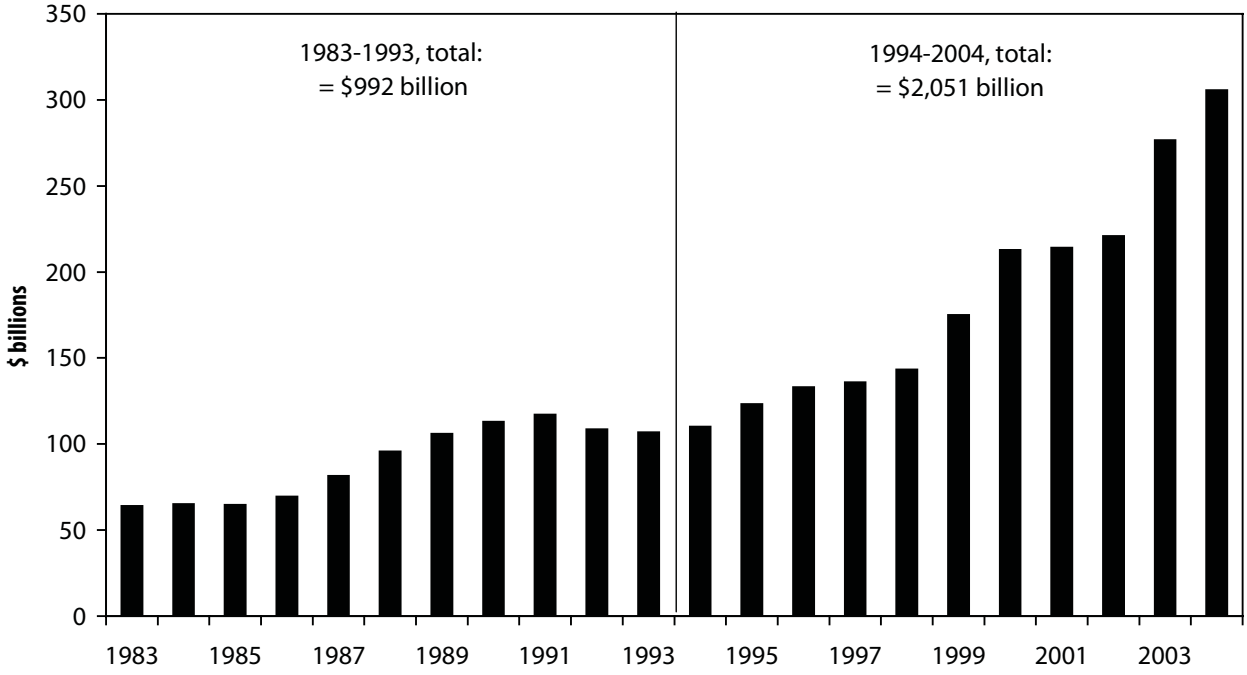
Indexes of hourly compensation costs in U.S. dollars for production workers in manufacturing



SOURCE: IMF International Financial Statistics.

FIGURE 1-H

Indexes of hourly compensation costs in U.S. dollars for production workers in manufacturing



SOURCE: IMF International Financial Statistics.

The confluence of falling real exchange rates and wages in Canada and Mexico, combined with rapidly growing inward FDI, set the conditions for rapid growth of exports to the United States. Some of these changes were well underway before NAFTA took effect, including economic liberalization in Mexico and the growth of inward FDI in both countries. However, the investor protections provided in NAFTA and the fact that Mexico's economic reforms were "locked in" by NAFTA certainly accelerated these trends. Furthermore, both Mexico and Canada experienced sharp devaluations in the period immediately following implementation of the agreements. The similarity of these patterns reflects the failure of both the C-USFTA and NAFTA to address exchange rate and trade balance issues. All of these factors combined to bring about the sharp shift in trading patterns (shown in Figure 1-A) from relatively stable bilateral trade balances in the 1980s to steadily growing deficits in the post-NAFTA era. There is no credible argument that NAFTA has not contributed substantially to the growth of these deficits.

Slumping U.S. labor markets

Employment in the manufacturing sector, the most trade-impacted segment of the economy, has been especially hard hit since the 2001 recession. Between January 2001 and December 2003, 2.9 million manufacturing jobs were eliminated in the United States. At least one-third of the jobs lost just between 2000 and 2003 were due to rising net manufacturing imports alone (Bivens 2004). Job losses in manufacturing exceeded those in the non-farm economy as a whole in this period (2.2 million jobs).

During a recession, growing trade deficits can contribute to unemployment, as well as the movement of workers from traded to non-traded sectors of the economy. Some authors have argued that NAFTA cannot explain any part of

Trade Deficits Cause Manufacturing Job Loss

In a recent Brookings Institution study, Baily and Lawrence (BL) (2004) claim that "whatever NAFTA's employment effects may have been, it is simply implausible to blame it for unemployment in 2001 and beyond." They examine the 2000-03 period, when 2.9 million manufacturing jobs were lost in the United States. Overall, they find that manufacturing job loss suffered between 2000-03 was driven only minimally (about 11%) by a rising trade deficit.

Bivens (2006) shows that BL's findings are the result of a fundamentally flawed model. In their model, BL estimate the employment effects of changing trade flows relative to productivity growth. In other words, the employment effect of a change in exports is estimated as a function of the growth in exports less productivity growth, and likewise, the employment effect of a change in imports is estimated as a function of the import growth less productivity growth. In their model, imports displace domestic employment only if they grow faster than manufacturing productivity. This methodology confounds and disguises the employment effects of trade by co-mingling them with productivity effects. Bivens clearly demonstrates that once these factors are disentangled, the impacts of trade on manufacturing employment are much larger than BL claim.

The economic logic that should be used to estimate the employment effects of trade is straightforward. Increases in imports displace production that could support domestic job creation, and growing exports support more domestic employment. When unemployment is increasing, if the volume of imports grows more than exports, then trade has contributed to job loss.

Between 2000 and 2003, U.S. merchandise imports increased $150.6 billion (BL 2004, 227, Table 1). Yet BL conclude that "imports offset" the loss of manufacturing noted above, by "429,000 jobs, and thus had a positive effect as judged by this baseline." To the casual reader, this suggests that rising imports were not responsible for job loss. Once the effects of imports and productivity growth are disentangled, it is clear that Baily and Lawrence have used a misleading baseline.

Likewise, BL's assertion that it is "implausible" to blame NAFTA for unemployment after 2001 is indefensible, because of the growth of U.S. trade deficits with Mexico and Canada. Between 2001 and 2003 , the U.S. trade deficit with both countries increased $15.8 billion, accounting for 16.5% of the growth of in the total U.S. trade deficit. Bivens (2004) estimated that the growth in the U.S. trade deficit in this period displaced 935,000 manufacturing jobs. Thus, growth in the U.S. trade deficit with Mexico and Canada was responsible for the displacement of about 150,000 manufacturing jobs in this period.

the recent rise in unemployment. This claim simply is not consistent with basic national income accounting and the analysis presented here (see **Trade Deficits Cause Manufacturing Job Loss,** above).

Despite the recovery of the economy since 2001, the labor market has been hit with a prolonged slump. Between February 2001 and July 2005, if job growth would have kept up with the growth in the working-age population, 3.2 million more jobs would have been added to the domestic economy (Bernstein and Price 2005). The displacement of jobs by growing trade deficits with NAFTA and other countries has apparently contributed to the suppression of job growth since 2001.

Growing U.S. trade deficits with Mexico, Canada, and the rest of the world are only one cause of some disturbing trends, including: 1) the disappearance of manufacturing jobs, 2) the rise in income inequality, and 3) the decline in wages for many workers in the United States. Other major factors include deregulation and privatization, declining rates of unionization, sustained high levels of unemployment, and technological change. Within NAFTA, the Mexican peso crisis in 1994-95, continued devaluation of the peso, and falling dollar wages in Mexico clearly contributed to the

growth of the deficit, as shown above. In addition, rising NAFTA deficits developed during a period in which overall U.S. deficits soared. Between 1993 and 2004, the $107 billion (nominal) increase in the U.S. trade deficit with Mexico and Canada was 21% of the $500 billion increase in the overall U.S. goods trade deficit. Clearly, growing NAFTA trade deficits were part of a much larger story.

Regarding trade and wages, while other factors just mentioned have played some role, a large body of economic research has concluded that trade is directly responsible for at least 15% to 25% of the growth in wage inequality in the United States (U.S. Trade Deficit Review Commission 2000, 110-18). In addition, trade has also indirectly contributed to growing wage inequality. For example, the decline of manufacturing employment, which results, in part, from growing trade deficits, has contributed to falling unionization rates, since unions represent a larger share of the workforce in this sector than in other sectors of the economy. Growing trade deficits with Mexico and Canada after NAFTA have contributed to this problem.

Conclusion

Growing trade deficits with Mexico and Canada after NAFTA took effect reduced employment in high-wage, traded-goods industries, resulting in a substantial loss of wage income for such workers. This contributed to growing inequality in wages and falling demand for workers without a post-secondary education, males in trade-related production, and minorities. NAFTA has also hurt workers in Mexico and Canada in many different ways, as documented elsewhere in this report. Without major changes in NAFTA to address unequal levels of development and enforcement of labor rights and environmental standards, continued integration of North American markets will threaten the prosperity of a growing share of workers in the United States and throughout the hemisphere. Negotiation of additional NAFTA-style agreements, such as the proposed Korean, Malaysian, and Thai Free Trade Agreements, will only worsen these problems. Workers have good reasons to be concerned as NAFTA enters its second decade.

The author thanks David Ratner and Gabriela Prudencio for research assistance and Robert Blecker, Josh Bivens, and Lee Price for comments on earlier drafts.

Appendix: Methodology and Data Sources

by David Ratner

The trade and employment analyses in this report and presented in Tables 1-1 through 1-5 are based on a detailed, industry-based study of the relationships between changes in trade flows and employment for each of approximately 200 sectors of the U.S. economy. The definitions of industries used by the Bureau of Economic Analysis (BEA) in the U.S. Department of Commerce changed during the period of this study. The U.S. Census Bureau's Standard Industrial Classification (SIC) system was used to categorize different sectors of the economy until from 1993 to 1997. The North American Industry Classification System (NAICS), which was developed in the late 1990s, was used for the 1997 to 2004 period. It was not possible to develop a consistent data series using either format for this study. Hence, the analysis is broken down into consecutive periods using SIC and NAICS data, and aggregated for presentation here.

This study separates exports produced domestically from foreign exports—which are goods produced in other countries, exported to the United States, and then re-exported from the United States. Foreign exports made up 14.9% of total U.S. exports to Mexico and Canada in 2004. However, because only domestically produced exports generate jobs in the United States, employment calculations here are based only on domestic exports. The measure of the net impact

of trade which is used here to calculate the employment content of trade is the difference between domestic exports and total imports. This measure is referred to in this report as "net exports," to distinguish it from the more commonly reported gross trade balance. Both concepts are measures of net trade flows.

The number of jobs supported by a million dollars of exports or imports for each of 200 different U.S. industries is estimated using a labor requirements model derived from an input-output table by the U.S. Bureau of Labor Statistics. This model includes both the direct effects of changes in output (for example, the number of jobs supported by $1 million of auto assembly) and the indirect effects on industries that supply goods used in the manufacture of cars. The indirect impacts include jobs in auto parts, steel and rubber, as well as service industries such as accounting, finance, and computer programming. This model estimates the labor content of trade using empirical estimates of labor content and trade flows between U.S. industries in a given base year (an input-output table for the year 2000 was used in this study) that were developed by the U.S. Department of Commerce and the Bureau of Labor Statistics. It is not a statistical survey of actual jobs gained or lost in individual companies, or the opening or closing of particular production facilities (Bronfenbrenner and Luce 2004 is one of the few studies based on news reports of individual plant closings).

Nominal trade data used in this analysis were converted to constant 1996 dollars using industry-specific deflators (see next section for further details). This was necessary because the labor requirements table was estimated using price levels in that year. Data on real trade flows were converted to constant 1996 dollars using export and import price deflators from the National Income and Product Accounts (BEA 2006). Use of constant 1996 dollars was required for consistency with the other BLS models used in this study. The trade statistics were translated into 2004 dollars for presentation in Table 1 using import and export price series obtained from the BLS (2006).

Trade in services was not analyzed in this study because such data are not available in sufficient detail to match with labor content multipliers used here, and because many international services transactions reflect payments for factors of production other than labor (profits, intellectual and copy rights, for example).

Demographic analysis

Wages

Average weekly wages in 2004 in each industry were estimated using the BLS ES202 establishment survey (BLS 2005a) for this table. Three different weighting techniques were used to estimate the average wages in industries exporting goods to Mexico and Canada, and average wages in domestic industries that compete with imported products. The results are shown in **Table 1-A1**. These weights were used to estimate average wages for imports and exports in all industries (column 1), and for all industries excluding crude oil, natural gas, and petroleum refining (column 2).

The first column in Table 1-A1 reports average import and export wages for all goods traded and all industries, using the three sets of weights for all industries. Column 2 reports average import and export wages for all industries except oil, gas and petroleum refinery products.[19] The United States is a net energy importer, and domestic products are not available to meet total demand for imports of petroleum and natural gas products. Thus, it would not be appropriate to include average wages in these sectors with jobs displaced by imports. Since average wages in these energy sectors are quite high, average wages estimated without these industries are significantly lower, as shown in Table 1-A1. For this reason, the results in column 2 are the best indicator of export and import wages.

Trade flows were used as weights to calculate the first set of estimates shown in the top section of Table 1-A1 ("Trade weighted"). In other words, if the value of auto imports was 10% of total imports, then 10% of the average import wage was based on wages in that sector.

The second set of estimates in Table 1-A1 ("Total jobs weighted") uses weights based on total direct and indirect labor content in each of the roughly 200 detailed industries, using detailed, industrial-level employment impacts (see Estimation and Data Sources, below, for further details). The aggregate totals of those employment impacts over all in-

Table 1-A1
Trade and wages in importing and exporting industries under NAFTA in 2004

			Percent difference* exports - imports	
	All industries	Excluding oil*	All industries	Excluding oil*
TRADED INDUSTRIES				
Trade weighted				
Imports				
Canada	$1,059	$927		
Mexico	1,045	957		
NAFTA	1,054	939		
Exports				
Canada	$946	$932	-10.7%	0.6%
Mexico	918	906	-12.2	-5.4
NAFTA	936	923	-11.2	-1.7
Total jobs weighted				
Imports				
Canada	$815	$795		
Mexico	825	813		
NAFTA	819	802		
Exports				
Canada	$815	$811	0.0%	2.1%
Mexico	802	799	-2.8	-1.8
NAFTA	810	807	-1.1	0.5
Direct jobs weighted				
Imports				
Canada	$848	$805		
Mexico	846	821		
NAFTA	847	812		
Exports				
Canada	$837	$834	-1.2%	3.6%
Mexico	817	815	-3.4	-0.8
NAFTA	830	827	-2.0	1.8
Addendum				**Percent difference from non-traded wages**
Non-traded industries***	$683			
Mexico imports (direct jobs weighted)		$821		-17%
Mexico exports (direct jobs weighted)		815		-16

* Excluding oil and gas, including refined petroleum products, NAICS industries 211 and 3241, respectively.
** Ratio of export to import wages, less one.
*** Excluding Agriculture and manufacturing industries.

SOURCE: EPI anaylsis of Quarterly Census of Wages and Employment, BLS, USITC data.

dustries are reported in Table 1-A1. The share of total jobs supported by exports, or displaced by imports, was then used to calculate the average wages for exports, imports, and net exports. The results reported in Table 1-4 were estimated using total jobs weighted.

The third set of estimates was based only on the direct labor content in each about 100 industries that were directly involved in goods trade ("Direct jobs weighted").

The finding that import wages are higher than export wages for trade with Mexico is quite robust, and is replicated in each of the six possible comparisons shown, for each of the three trade- and job-based average wage estimates, using wages in all industries, and all industries except for oil, gas, and petroleum refinery products. The average wage comparison for Canada conforms to the standard trade model, with average wages in exporting industries higher than in import-competing sectors.

Education, gender, wage, and racial analysis

The models used in this study were extended to examine the effects of growing NAFTA trade deficits on different demographic groups using Census data on worker characteristics by industry (see Estimation and Data Sources, below). The detailed, SIC- and NAIC-based estimates of employment displacement resulting from growing trade deficits at the detailed industry level were also used to estimate the impacts on demographic sub-groups. The total number of jobs supported or displaced was apportioned according to the share workers of each demographic group within in that industry.[20] The total impact on employment of changes in net exports, by sector, for each demographic group (calculating the net impact of trade on employment in that sector) was summed across all industries and both time periods.[21]

Wage data shown in Table 1-5 are derived from CPS ORG data, which provides detailed microdata including demographic information for individual workers. Wage data reported in Table 1-4 are based on establishment payroll statistics. The publicly available BLS data provide only average compensation levels by industry. The establishment data provide more accurate and reliable information about mean wages for each industry, but distributional data are not reported in publicly available establishment data.

Estimation and Data Sources

Data requirements

Step 1. Trade data was obtained from the USITC Dataweb (2005) in two different formats. For 1993-97, trade data is available in three-digit SIC-based classifications. As a result of the switch to NAICS-based classifications, trade data for 1997-2004 is downloaded in four-digit NAICS format. Consumption imports and domestic exports are downloaded for each year.

Step 2. To conform to the BLS Employment Requirements tables (BLS 2005b), trade data must be converted into the BLS industry classifications system. For SIC-based data, the BLS classification system consists of 192 industries. For NAICS-based data, there are 184 BLS industries. The data are then mapped from SIC or NAICS classifications onto their respective BLS classification.

The trade data, which are in current dollars, are deflated into real 1996 dollars using a combination of published and estimated price deflators. Price deflators for 2003 and 2004 are estimated using a combination of industry producer price indices and commodity price indices (from the Bureau of Labor Statistics 2005c). We assume that labor content in the production of computer equipment is more closely related to nominal prices than real prices. Therefore, we keep the price deflator for the computer industry constant over the period.

Step 3. BLS real domestic employment requirements tables are downloaded from the BLS. These matrices are input-output tables industry by industry that show the employment requirements for $1,000,000 in inputs in 1996 dollars. So, for the i-th industry, the entry is the employment indirectly supported in industry i by final sales in industry j and where i=j, the employment directly supported.

Step 4. (Demographic data) CPS ORG data for 2000 is used to estimate demographic data by industry for sex, race, educational categories, and wage categories (U.S. Census Bureau 2001). Educational categories are as follows:
Less than high school
High school
Some college
College +

Wage categories are determined following Mishel et al. (2005) Table 2.32 from CPS ORG and adjusted for inflation to 2000:
$7.22/ hour
$11.99/ hour
$17.81/ hour
$30.84

Analysis

Step 1. Job equivalents

BLS trade data is compiled into matrices. Let T_{1989} be the 192x2 matrix made up of a column of imports and a column of exports. T_{2002} is defined as the 184x2 matrix of 2002 trade data. Define E_{1989} as the 192x192 matrix consisting of the domestic employment requirements tables. Finally, let E_{2002} be the 184x184 matrix made out of the 2002 domestic employment requirements table. To estimate the jobs displaced by trade, perform the following matrix operations.

$$[J_{1989}] = [T_{1989}] \cdot [E_{1989}]$$

$$[J_{2002}] = [T_{2002}] \cdot [E_{2002}]$$

J_{1989} is a 192x2 matrix of job displacement by imports and exports and 192 industries. J_{2002} is a 184x2 matrix of job displacement by imports and exports and 184 industries.

The employment estimates for retail trade, wholesale trade, and advertising were set to zero for both NAICS and SIC industry-based analyses. We assume that goods must be sold and advertised whether they are produced in the United States or imported for consumption.

Step 2. Demographic breakdown

Define D_{1989} as the 192x15 matrix of demographic shares by 192 industries. Define D_{2002} as the 184x15 matrix of demographic shares by 184 industries. Compute

$$[F_{1989}] = [J_{1989}]^T [D_{1989}]$$

$$[F_{2002}] = [J_{2002}]^T [D_{2002}]$$

Then, F_{1989} and F_{2002} are the 2x15 matrices of job displacement with imports and exports in the rows and demographic categories in the columns.

Step 3. State-by-state analysis

Employment by industry data is obtained for the BLS CPS files for 2000. Define St_{2000} as the 184x51 matrix of state shares of employment in each industry. Calculate:

$$[Stj_{2004}] = [St_{2000}]^T[J_{2004}]$$

Where is the 51x2 matrix of job displacement/support by state.

Step 4. Average wage calculations

In order to estimate a measure of wages in import and export industries, several weights were used. First, data were collected from the Quarterly Census of Employment and Wages (BLS 2005a, commonly known as the ES-202), a census of establishments that are covered under state or federal unemployment insurance laws. The ES-202 has data on establishments by six-digit NAICS industry codes. We aggregate the 2004 data to three- and four-digit NAICS industries and convert total wages and employment to the BLS 184 industry classifications.

To derive estimates for average weekly wages in each industry, total annual wages is divided by total annual employment and then further by 52. This measure of average weekly wages is then applied to different weights in order to estimate a wage for import and export industries. These weights include: trade, total job equivalents, and direct job equivalents.

Endnotes

1. http://www.whitehouse.gov/news/releases/2004/03/20040310-1.html.
2. The growth of the trade deficit with Mexico after NAFTA took effect eliminated about 1,015,000 jobs in manufacturing and other trade-related industries between 1993 and 2004. Whether employment in the total economy increased or fell in this period depended whether the economy is at full employment, a situation where additional employment cannot be created. In these circumstances, trade deficits create a reallocation of employment from trade-related industries to other sectors. However, the U.S. economy has only sporadically been at full employment and certainly was not at the endpoint of this study: 2004. Therefore, the higher trade deficits correspond to lost job opportunities.

   The total U.S. goods trade deficit, in particular, increased from $133 billion in 1993 to $666 billion in 2004, an increase of $533 billion (all figures in nominal dollars). The U.S. trade deficit with Mexico and Canada increased from $16 billion to $116 billion in this period (in nominal dollars—hence these data are different from the trade data reported in Table 1a, which are expressed in constant dollars), and increase of $100 billion. The growing trade deficit with NAFTA countries thus explained slightly less than one-fifth of the overall growth in the U.S. trade deficit in this period.
3. These findings based on EPI analysis of CPS Outgoing Rotation Survey data. See Appendix for details.
4. Lee (1995, 10-11) cites Don Newquist, chair of the [U.S.] International Trade Commission, who claimed that NAFTA would create "more jobs, increased exports, and higher wages" (Newquist 1993). Rudiger Dornbusch (1991) wrote: "If you are concerned about good jobs at good wages, freer trade with Mexico will deliver just that: more good jobs for Americans as Mexico prospers and becomes a major market for American goods in the way that Spain did for the European Community."
5. The phrase "foreseeable future" is from Hufbauer and Schott (1993, 16, table 2.1), which is based on a $9 billion improvement in the U.S. trade balance with Mexico. The text provides more specific predictions of NAFTA's trade impacts of "$7 billion to $9 billion annually through the 1990s and perhaps $9 billion to $12 billion annually in the following decade." This suggests that the employment gains from NAFTA could increase after 2000.
6. See Schoepfle and Perez-Lopez (1992) and Schoepfle (1993) for summaries of these and other forecasts of the employment impacts of NAFTA.
7. Hufbauer and Schott also claimed that NAFTA would "make North American firms more competitive in world markets" (1993, 116).
8. Between 1993 and 2004, the U.S. trade deficit with Mexico and Canada (combined) increased $103 billion (in nominal terms), and the U.S. trade deficit with the rest of the world increased by $431 billion. The total U.S. trade deficit increased $534 billion in this period, and NAFTA was responsible for about one-fifth of the total.
9. Or, in the case of domestic consumption of products made in the maquilas, Mexican tariffs on the foreign content would be applied on exit from the zones. The maquiladora share of Mexico's total imports increased from 25% to 35% between 1993 and 2004 (U.S. Department of Commerce 2005, Table 56 and International Monetary Fund 2005). Likewise, the maquiladora share of Mexico's total exports increased

from 42% to 47% in this period, maquila imports increased 320%, and exports increased 300%. Non-maquila imports increased only half as fast (160%), and exports about four-fifths as fast (240%). U.S. exports to Mexico declined from 64% to 56% of Mexico's total imports. On the other hand, U.S. imports from Mexico increased from 77% to 82% of its total exports. This calculation compares total U.S. exports to Mexico, as reported by the United States, with total imports into the maquiladora plants, as reported by Mexico.

The number of maquiladora factories increased from 2,143 in 1993 to 3,703 in 2000. (see Salas, Figure 2-J). However, between 2000 and 2004, the number of maquiladora plants fell by nearly 900, in the wake of the U.S. recession and the surge in its imports from China. Mexico's exports from all locations recovered in 2004, growing 13% to 16%.

10. Source: Unpublished results from this study. Data available upon request.
11. The manufacturing-only estimate excludes jobs displaced in other commodity sectors including energy and agriculture. In addition, to the extent that production in the United States is displaced by output from Mexico generated by firms based in other countries, more service-sector job displacement was likely experienced.
12. See Appendix for computational details.
13. These estimates exclude jobs in oil, gas, and petroleum refinery products, as explained in the Appendix. Estimates reflect weighting by the total number of jobs displaced in each sector.
14. Average annual compensation in manufacturing in 2002 was $56,154. Other major sectors with higher wages were mining ($74,455), information ($71,279), finance, insurance, and real estate (FIRE, $68,831), and government ($56,886). Among these sectors, only mining (18.7%) had fewer college graduates than manufacturing (22.3%). Manufacturing and mining lagged well behind information (39.9%), government (38.1%), and FIRE (38.1%) (Mishel et al. 2005, Table 2.28, 173).
15. Source: CPS ORG data and Economic Policy Institute (see Appendix). Workers with less than a high school education earned $9.74 per hour in manufacturing and $8.99 per hour in non-manufacturing jobs in 2000, on average. Likewise, high school educated workers earned $13.33 in manufacturing and $12.06 in non-manufacturing jobs.
16. Faux notes that in order to prevent the election of leftist presidential candidate Cuahtémoc Cárdenas in 1988, "the government…simply stopped counting the votes" as admitted by then President Miguel De La Madrid. Faux notes that the threat that this "might have set back Salinas's plan to open up the country to foreign investment made Washington nervous." He cites Robert Rubin (2004) who said, "Salinas once told me that the best thing about NAFTA was that in the next crisis it would prevent Mexico from going back to the old statist protectionist days." See also Hufbauer and Schott (2005, 1).
17. Source: Blecker (2005).
18. Bronfenbrenner (1997a and 1997b) has argued that firms also use the threat of plant closure and factory relocation to Mexico as a way to thwart union organizing campaigns, and as a bargaining chip in labor negotiations, which reduces the bargaining power of unions and puts downward pressure on wages and benefits in the United States.
19. The average weekly wage was $1,723 in crude oil and natural gas, and $1,194 in petroleum and coal products. These energy products were 12.2% of imports from Mexico (91% crude oil and natural gas) and 18.4% of imports from Canada (85% oil and gas) in 2004.
20. A match was made between industries defined according to the CPS sectoring plan (which differs from both BLS and SIC/NAICS sectoring plans). In a limited number of cases, exact matches were not possible. In those instances, demographic characteristics for closely related sectors (e.g. other sectors within the same broad industry) were used as proxy weights.
21. The SIC-based data cover the period 1993 to 1997, and the NAICS-based estimates cover the 1997 to 2004 period.

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BETWEEN UNEMPLOYMENT AND INSECURITY IN MEXICO

NAFTA enters its second decade

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INSTITUTE OF LABOR STUDIES AND EL COLEGIO DE TLAXCALA

One of the objectives stated in the preamble of the official text of the North American Free Trade Agreement (NAFTA) is to guarantee sustained growth of the member countries—particularly in Mexico—such that Mexican workers would enjoy increases in both the amount and quality of employment and earnings.

Mexico's economic policy, based on an open-market economy and accentuated by entry into NAFTA, has resulted in the poor performance of the national economy in terms of creating quality jobs and addressing the erratic and feeble growth of labor income.

Mexico's global trade deficit is growing despite the increase in its trade surplus with the United States. The race to the bottom—brought about by the decision to distort the competitive performance of the export sector by paying low wages to the majority of Mexican workers—has brought benefits solely to large companies, the financial sector, and a reduced layer of administrative and professional workers earning high salaries.

This chapter will show that:

- Since NAFTA took effect, Mexico has experienced a continual increase in the precarious nature of employment.
- Real wages and salaries have followed an erratic growth pattern and, in most sectors, have never returned to levels achieved at the beginning of the 1990s.
- The agricultural sector has suffered a large and steady loss of employment.
- Corporate earnings have grown while inequality in income distribution has followed a volatile trend.
- Mexico's primary structural problem is growing dependence on global imports.
- Growth in foreign direct investment (FDI) does not necessarily translate into growth of good-quality employment.

Faced with these circumstances, the way forward for Mexico is clear: the development project must be transformed at a fundamental level providing benefits for the working population, and guaranteeing sustained growth in production, earnings, and standards of living. The NAFTA model has clearly failed to achieve its goals in these areas.

In order to transform the development model, Mexico must reshape its development strategy to include the following elements: growth in the domestic market along with export activity; the full participation of both the private and public sectors in economic activity; and, a deeper, more extensive democracy permitting the participation of all citizens in defining the country's development plan. As the starting point for this transformation, NAFTA must be revised in order to create a social fund that stimulates the development of infrastructure and employment in the country as a whole and especially in Mexico's most marginalized regions. Only a vast development program can abate the disparities existing among the nation's diverse regions.

Additionally, an exhaustive revision of NAFTA's chapter on agriculture is needed and the Commissions for Labor and Environmental Cooperation must be endowed with the power and authority needed in order to effectively monitor and enforce compliance with Mexico's labor laws, according to the logic of the International Labor Organization's (ILO) Proposal for Decent Work.

A brief overview of the history of economic development in Mexico

For more than 20 years, the Mexican economy has experienced profound economic changes that have affected male and female workers alike.

The development model began to change with the foreign debt crisis. As has been shown (Salas 2003), there was a radical change in economic policy originating from the crisis of the growth model based on the domestic market (the so-called "import-substitution model")[1], which arose from Cardenas presidential period at the end of the 1930s. This policy was based on a closed-market economy model that imposed elevated tariffs on some imports and prohibited the import of many types of goods, a restriction that could be circumvented by special permits. Nevertheless, an efficient program to substitute the imported inputs that domestic industry depended upon did not accompany this protection of domestic producers. As a result, domestic production relied on the availability of foreign currency to buy needed inputs abroad.

Foreign currency, in turn, was obtained through international trade in agricultural products and from extractive industries. However, by the mid-1970s, the agricultural sector entered into a crisis (Solís 1981). The discovery of large petroleum-rich zones and their exploitation beginning in the mid-1970s postponed an imminent crisis by facilitating accelerated foreign indebtedness. When the price of petroleum fell in the beginning of the 1980s, it was impossible to avoid a larger debt crisis, which occurred effectively in 1982.

Nevertheless, it is important to point out that despite its limitations in the long-run, the domestic-market-oriented model was able to maintain high per capita GDP growth rates that were accompanied by a reduction in the inequality of income distribution and an increase in income from work (Altimir 1983; Hernández Laos 1999).

The import-substitution model was gradually dismantled beginning with the government of Miguel de la Madrid (1982-88). The change to the growth strategy led to a phase of privatizations and re-privatizations, changes to the laws, abandonment of income redistribution mechanisms, liberalization of foreign trade, and greater labor flexibility (Salas and Gallahan 2004; Zapata 1997). In 1986, the process of opening the market was consolidated with Mexico's entrance into the General Agreements on Tariffs and Trade (GATT) (Calva 2000).

By diminishing direct state participation in the economy and reducing *per capita* social spending (Chávez 2002), the market opening has heightened the economic polarization that characterizes developing countries (Dussel 1997).

The government of Carlos Salinas (1988-94) presented access to foreign markets as a means for the country to ascend into the First World (Aspe 1993). As an instrument to achieve this goal, and in order to assure foreign investors of the long-term durability of the open-economy model, NAFTA was signed in 1993.

The following sections examine in some detail the evolution in Mexico of two key elements of the export-based economic project: the export-import sector and foreign investment. Later we examine how the economic dynamic has impacted job creation as well as the characteristics of these jobs.

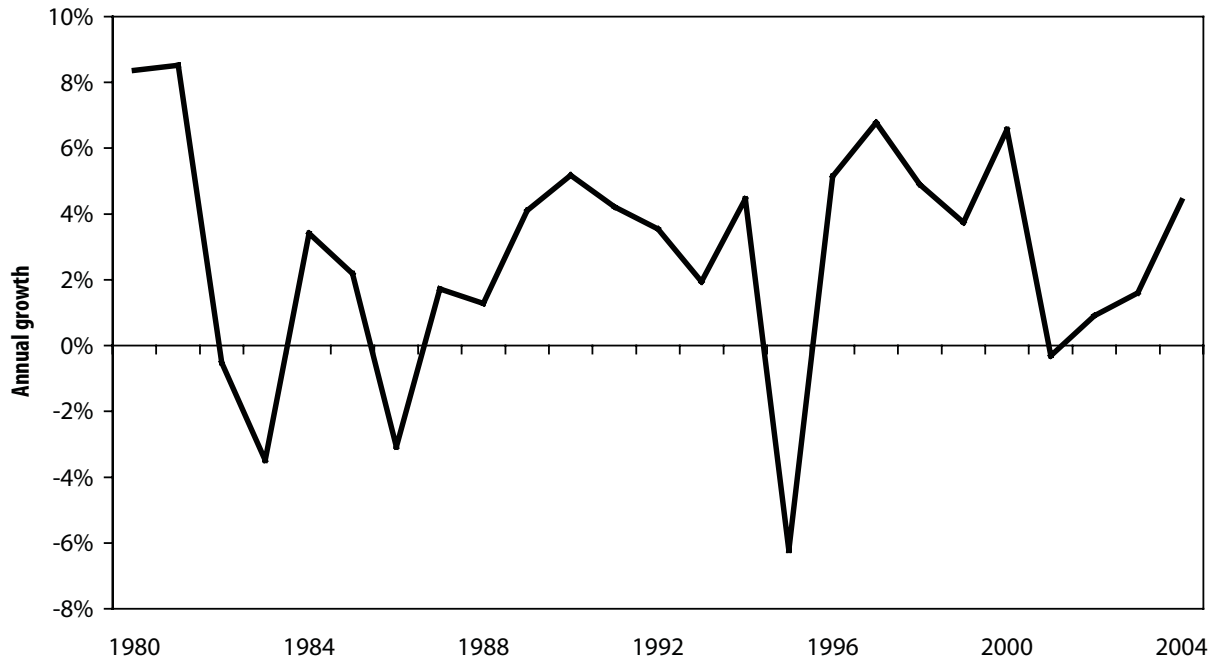
The evolution of the economy beginning in the 1990s

One of the elements that diehard NAFTA supporters use to affirm the trade agreement's success is the performance of the Mexican economy since the crisis of 1995, emphasizing that between 1997 and 2000 the Mexican economy grew rapidly (**Figure 2-A**).

Nevertheless, this performance is irregular. In fact, the International Monetary Fund's (IMF) predictions for the next two years are not very optimistic, and have forecast that annual growth will range between 3.5% and 3.7% (IMF 2005).

FIGURE 2-A

Wide fluctuations in Mexican GDP growth, 1980-2004



SOURCE: INEGI, various years.

A brief examination of the evolution of GDP over a longer time interval reveals significant differences in growth rates and patterns between the periods when the import-substitution model was in effect and when the current open economy model entered into force, as shown in **Figure 2-B**.

While the economy did expand during the 1990s, performance in this period cannot compare to the record of growth in the 1950-80 period. This contrast is even more pronounced when examining the rate of growth of per capita GDP (**Figure 2-C**). Note that recent rates are scarcely half of what they were in the 1960-80 period.

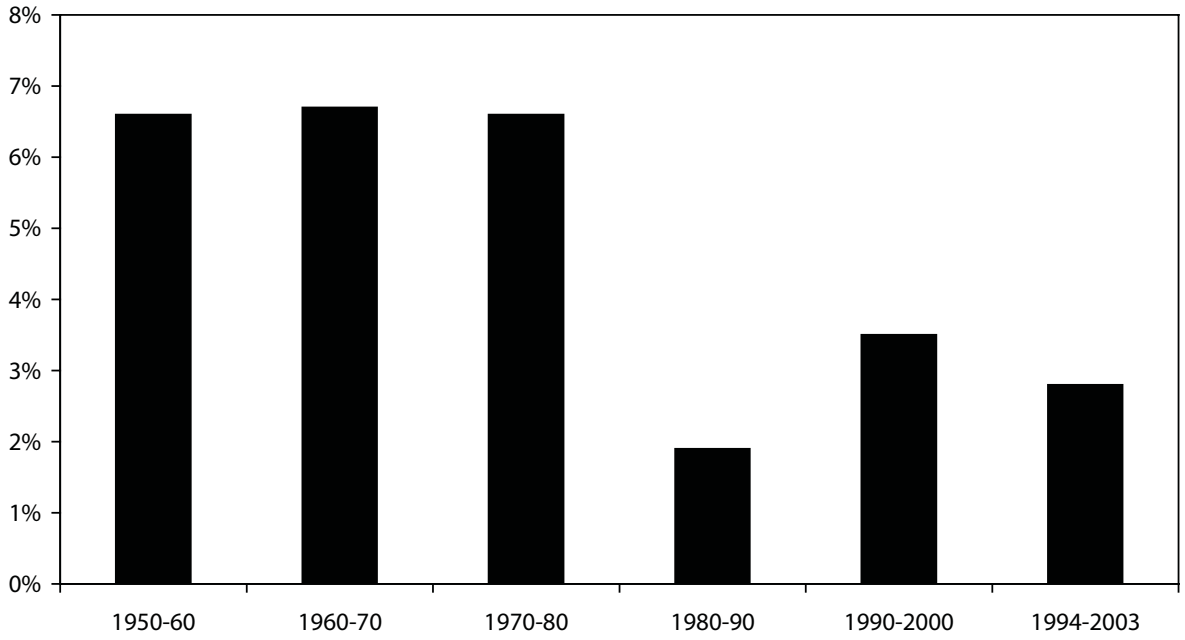
The economy's evolution, while it has not translated into generalized benefits for the population, has improved firm profits. The results of Mariña and Moseley (2001) show that the rate of profit for the economy as a whole recovered after the crisis in 1986 but never achieved a sustained increase, let alone one matching the levels observed in the 1970s (**Figure 2-D**). Therefore, to date, there is no evidence of a cyclical recovery in profit rates.

In order to understand the mechanics of the evolution of the Mexican economy, **Figure 2-E** disaggregates the gross domestic product (GDP) into its component parts: private consumption, government spending and changes in inventory stocks, fixed investment, exports, imports, and net exports. This permits an examination of the contribution of each of the diverse components to the change in GDP. GDP growth is equal to the sum of growth in its component parts in each year.

Figure 2-E shows that during the first year NAFTA was in force, the growth of the economy was driven by growth in private consumption and imports were growing more rapidly than exports. Thus, net exports actually reduced GDP growth in 1994. Following the devaluation crisis that exploded at the end of 1994 (Blecker 1996), exports drove growth during the 1995-96 recovery period, as private consumption was weakened by both the high costs resulting from the devaluation and also the increase in interest rates.

FIGURE 2-B

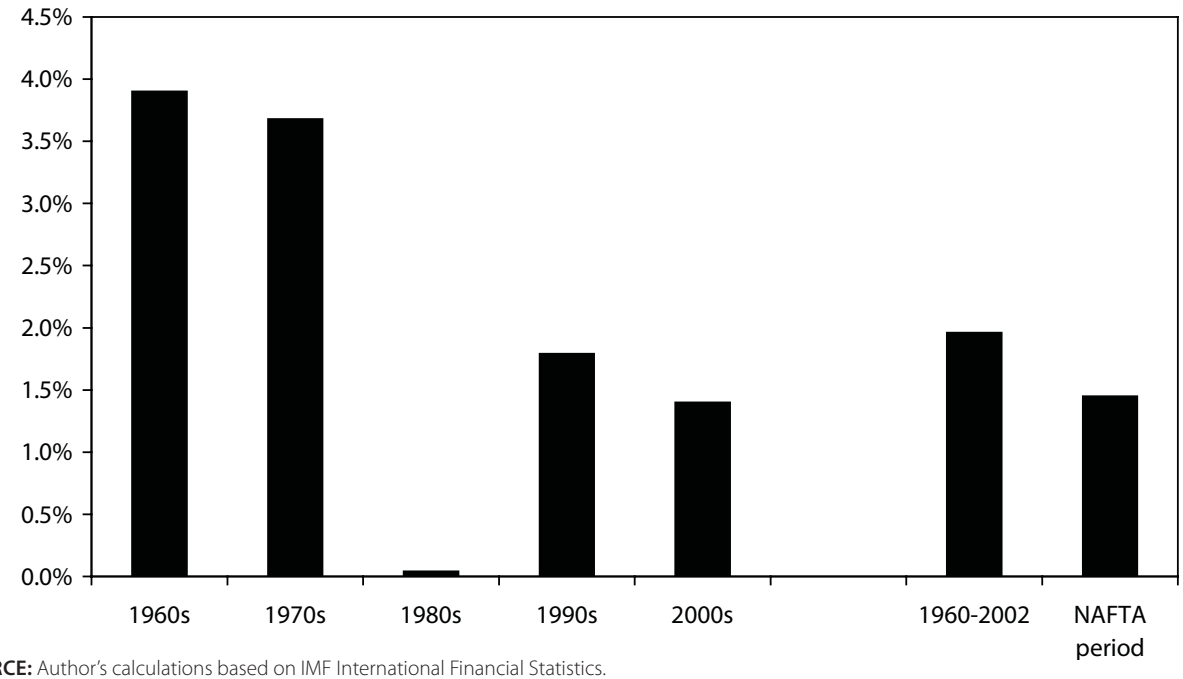
Average annual GDP growth in Mexico: 1950 - 2003



SOURCE: ECLAC, Statistical Yearbook, various years.

FIGURE 2-C

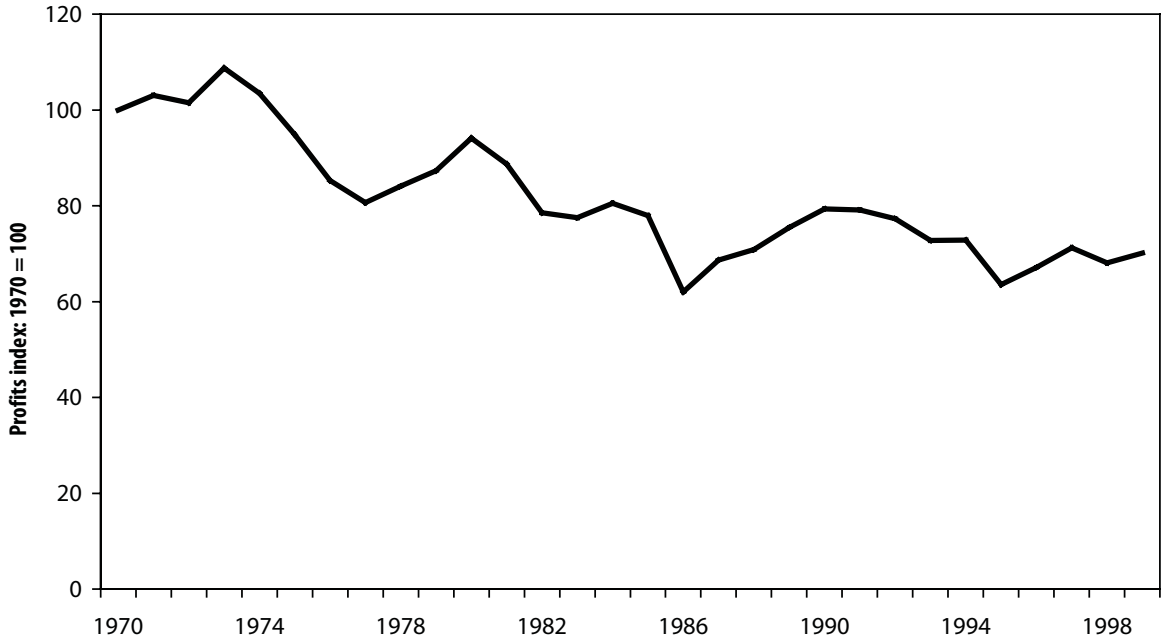
Export promotion slows per capita GDP growth in Mexico: 1960 - 2003



SOURCE: Author's calculations based on IMF International Financial Statistics.

FIGURE 2-D

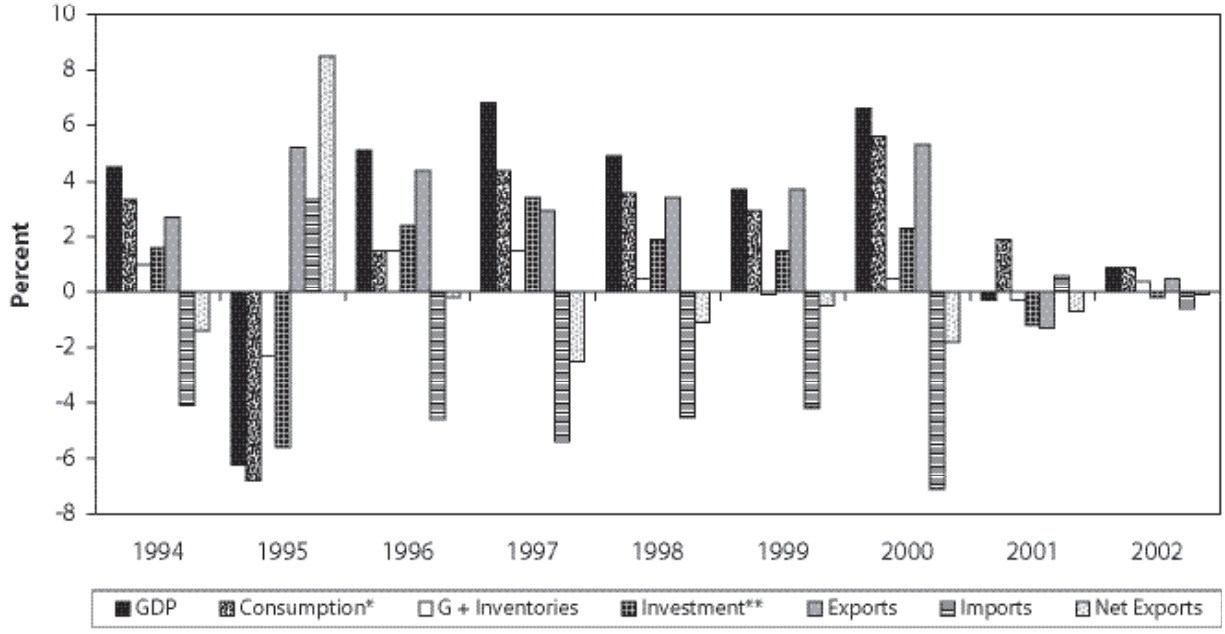
NAFTA helped stabilize profit rates in Mexico, 1970-1999



SOURCE: Author's calculations based on IMF International Financial Statistics.

FIGURE 2-E

Contributions to percent change in Mexico GDP, 1994-2002



*Private consumption **Net investment
SOURCE: Estimates derived from INEGI's Economic Data Bank.

The net contribution of foreign trade to the economy's performance was temporary. Exports momentarily became less expensive in international markets due to the magnitude of the devaluation. However, imports began to grow vigorously to sustain this level of production—a recurrent phenomenon in the Mexican national economy—and net exports once again began to retard economic growth.

The recovery and consequent growth from 1997 until 2000 was sustained by domestic demand, particularly in private consumption. Private investment also grew, which helped the economy recover its dynamism. The initial impulse may have originated in inventory accumulation and government spending, but the investment growth slowed, in part as a reflection of the financial structure and a tight monetary policy.

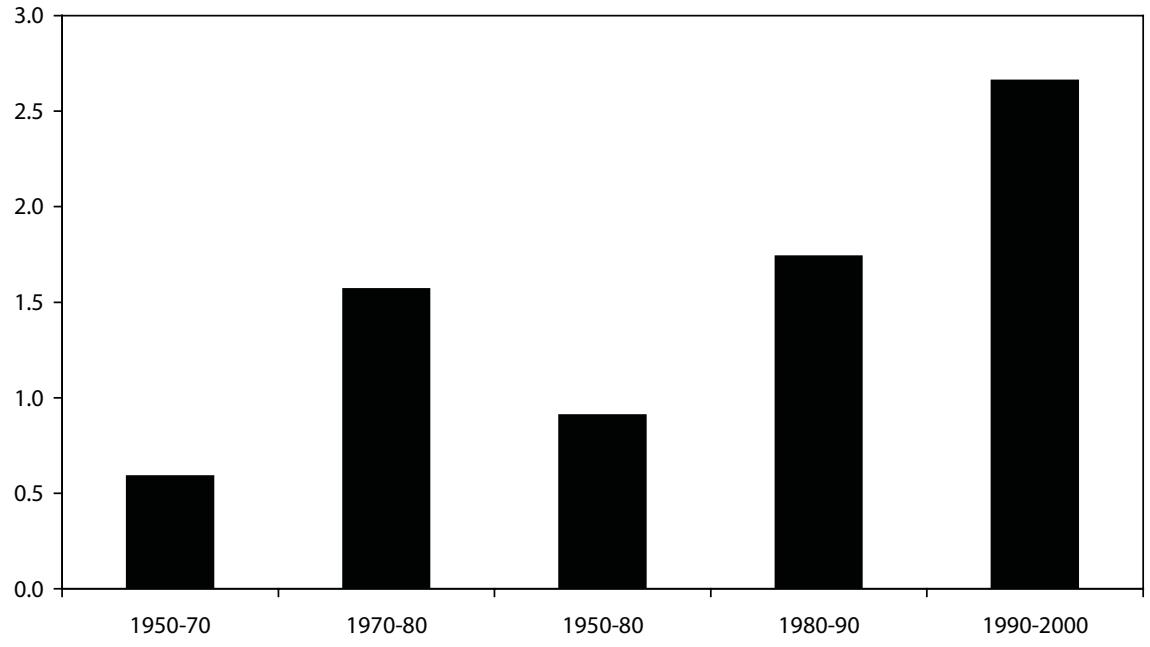
The trade balance problem

The first efforts to re-structure Mexico's industrial production occurred before NAFTA was signed. The goal was to transform the country into an exporter of consumer and intermediate goods.[2]

Despite having a trade surplus with the United States ($45 billion in 2004), when trade with Europe and Asia is taken into consideration, the balance turns into a deficit ($8.3 billion for 2004). Exports are mostly manufactured products that absorb a significant amount of imported inputs. Consequently, when the economy grows, so does the trade deficit. **Figure 2-F** shows the relationship between the rate of growth of GDP and the rate of growth of imports (the so-called implicit (average) income elasticity of import demand) and demonstrates that, beginning in 1980, the need to import more in order to grow had heightened to such an extent that a 1% increase in GDP increased import demand by 2.66%. The strong dependency of internal growth on imports is explained by the destruction of domestic productive chains (Aroche 2002), a phenomenon due in part to market opening and to many industrial sectors being uncompetitive.

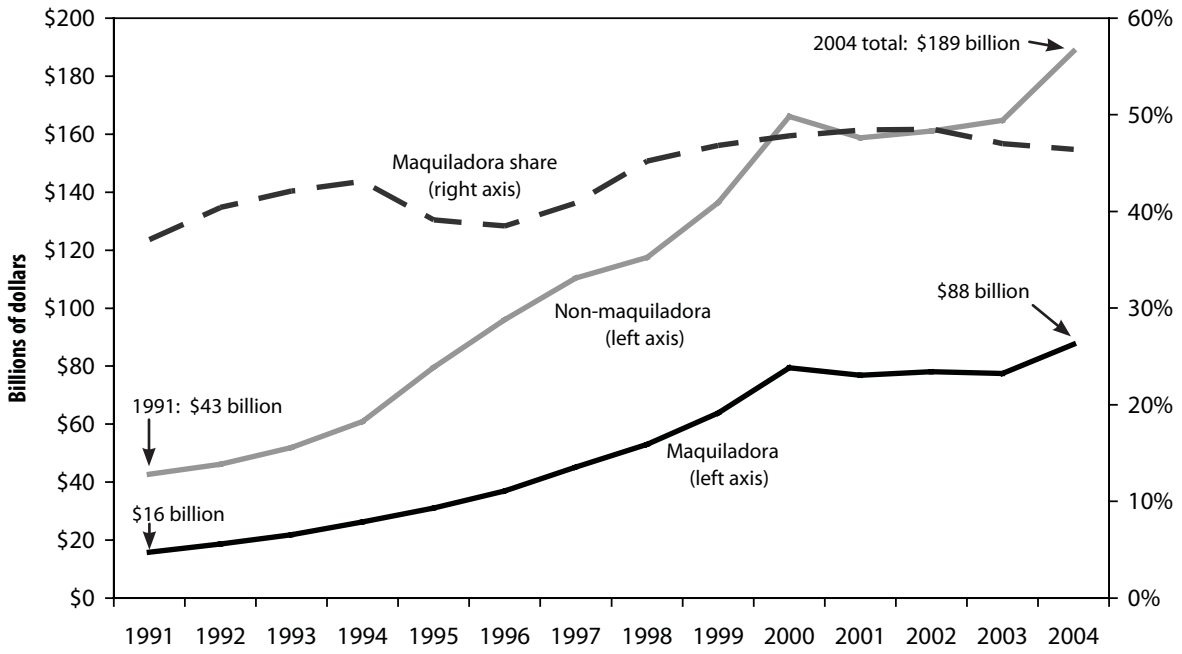
FIGURE 2-F

Mexico: implicit income elasticity of import demand, 1950-2000



SOURCE: Author's calculations based on ECLAC data.

FIGURE 2-G



SOURCE: INEGI's Economic Data Bank.

Between 1991 and 2004 total exports (including those of the maquiladora export assembly sector[3]) grew at an average annual rate of 12%; particularly during the last 10 years—the period since NAFTA came into force—the proportion of maquiladora exports as a share of total manufactured exports grew considerably, as shown in **Figure 2-G**. Nevertheless, this was a process that had already begun before NAFTA was signed. At this point, it is important to note that despite being considered in the official data as part of exports, when it comes to foreign currency earnings, maquiladora activity generates only limited value-added in Mexican territory. The majority of this value-added corresponds to the wages paid and only a small part of it results from tax payments or payments for inputs. The following paragraphs will examine total exports, which include maquiladora activity.

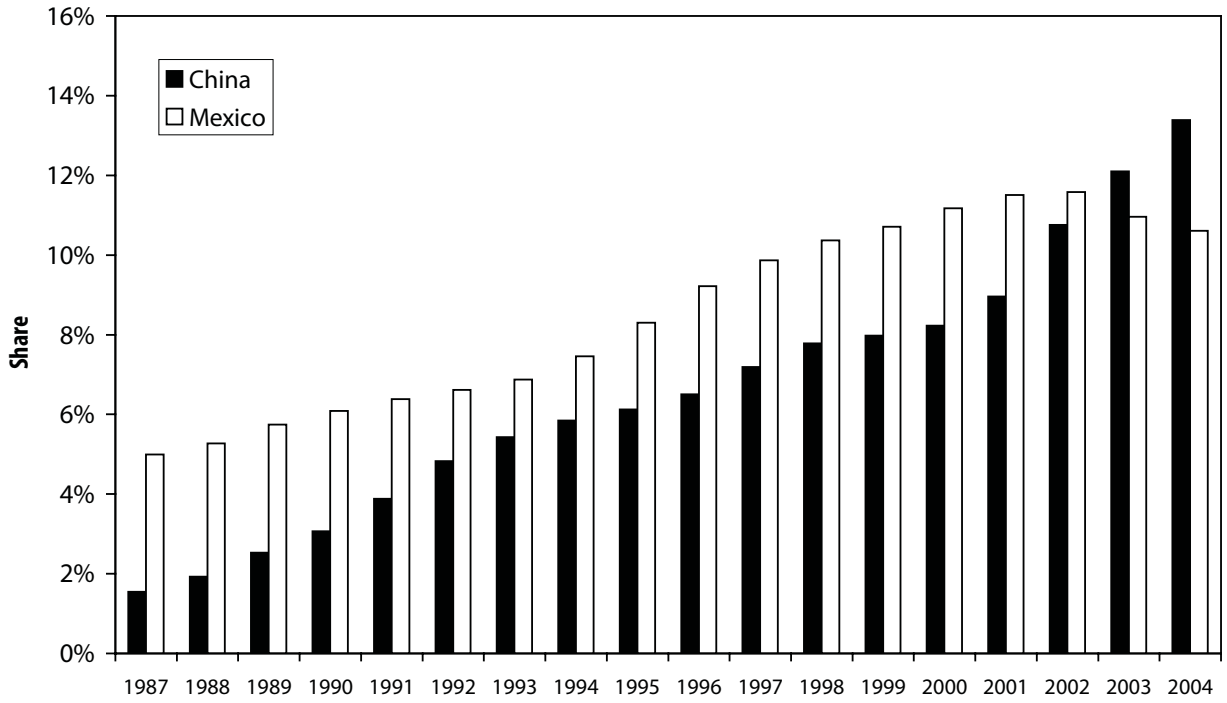
Due to the legal characteristics of the maquiladora industry, its activity does not depend on the trade opening resulting from NAFTA, as the sector has its own rules. So it has been argued that the increment in maquiladora activity is due more to the devaluation subsequent to 1994 than to NAFTA itself (Gruben 2001).

The maquiladora industry primarily produces metal and equipment products, electronics and textiles, as well as steel, paper and printing, clothing, and plastic products. For example, in 2002, of the 47.9% of total industrial exports generated by the maquiladora sector, metal and machinery products account for 39.8 percentage points of the total and textiles and garments represent 4.3 percentage points. The rest (approximately 3.8% of total exports) is shared by the remaining industries.

Agriculture and mining have a reduced presence in trade (currently, they do not account for more than 20% of non-maquiladora exports, whereas in 1991, they accounted for 35% of this category). In contrast, the proportion of manufactured goods in the total of non-maquiladora exports grew to reach 78.8% in 2002. These exports were principally metal products followed by textiles and garments, which represented, cumulatively, 66% and 68% of the exports of non-maquiladora manufactured goods. Outside of metal products, textiles and garments, and the food and beverage

FIGURE 2-H

Mexico's and China's shares of total U.S. imports, 1987-2004



SOURCE: U.S. Department of Commerce (www.ita.doc.gov/td/industry/otea/usfth/tabcon.html), Table 56.

industry, the percentage of non-maquiladora exports of other industries—chemical, petrochemical, metallurgic products and steel production—shrank as a share of total manufactured exports.

The manufactured goods sector has grown, but the basic problem is that the specific type of productive specialization occurring in Mexico is product assembly based on imported inputs with little to no link to the rest of the nation's productive apparatus (Aroche 2001). This process does not ensure sustained industrial development in the framework of markets with high value-added products.

In fact, the location of export manufacturing zones is not determined by competitive factors such as training and knowledge, but rather by low wages. As Palley (2004) shows, there is a race to the bottom related to labor norms. Foreign companies are more interested in locating themselves so as to benefit from the national content clauses of NAFTA, always when labor or regulatory costs do not surpass the advantages of being able to sell to the U.S. market.

Despite apparently counting on the advantage of NAFTA to stimulate exports to the United States, between 2000 and 2003, the evolution of the export sector was very weak. This contrasts with the performance of Chinese manufactured goods, which increased rapidly after China joined the World Trade Organization (WTO) in 2001. This evolution is shown in **Figure 2-H**, together with the Mexican exports to the United States. The difference in export promotion policies is very evident in the results of these last years in the case of China, while in Mexico the weak evolution of exports is attributed to the slow down of the US economy. In 1987, Mexico's share of U.S. exports was more than triple that of China (1.6% versus 5%). By 2004, China's exports to the U.S. were 26% larger than Mexico's.

The evolution of foreign direct investment

After 1994, foreign direct investment (FDI)—a significant portion of which has been directed towards the purchase of existing assets—accounted for most of Mexico's net financial inflows (Blecker 2003).

Throughout the period of time that NAFTA has been in force, FDI flows have been relatively stable, lacking large, episodic swings. In fact, the majority of foreign investment has entered Mexico as foreign direct investment and not into money market or stock market funds.

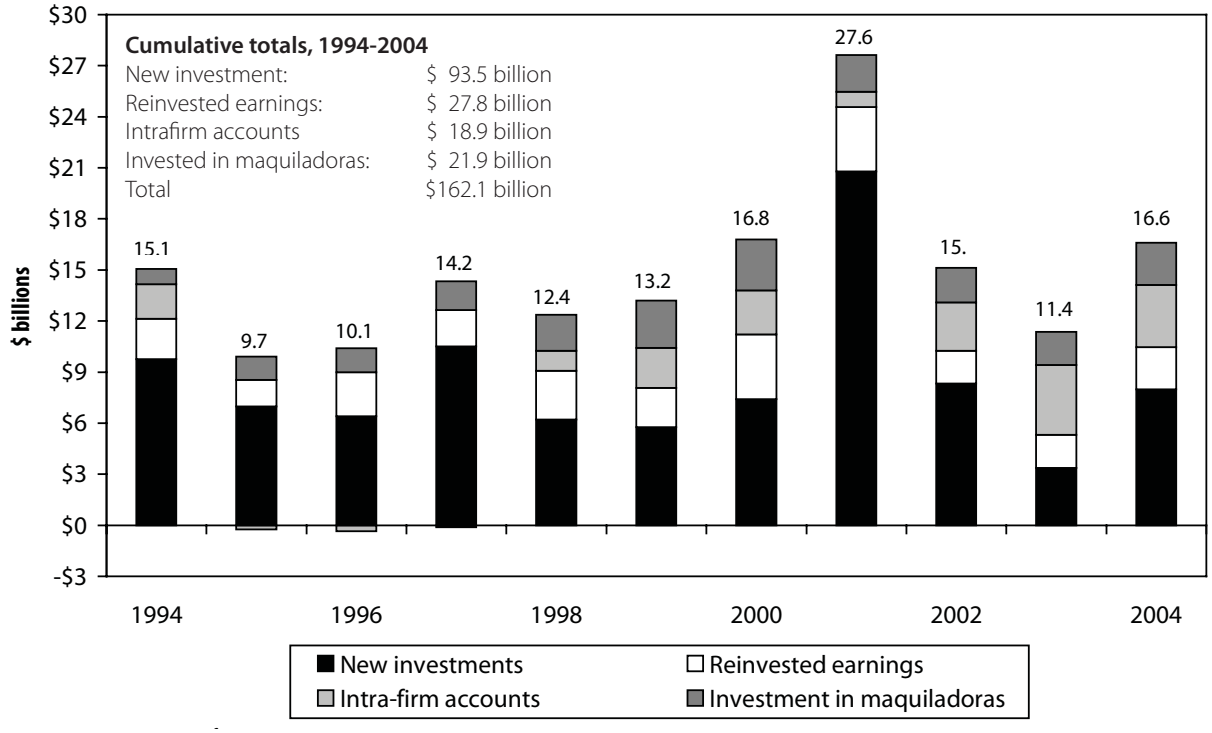
The majority of FDI is composed of "new investments" (**Figure 2-I**), funds that have been used mostly for the purchase of existing companies (as is shown by the enormous flow in 2001, much of which was derived from the purchase of BANAMEX by Citigroup).

These "new investments" have followed an irregular pattern. In contrast, the investments in maquiladora and the flows of accounts between firms have grown in a sustained manner. The problem with both types of flows is that they correspond to account balances between firms that do not translate into real technology transfer. Additionally, the flow of FDI toward industrial activities has diminished since 1980 and has been directed increasingly toward services. In 1980, 80% of FDI went toward manufacturing, while in 2004 this percentage had fallen to 52%.

Therefore, the general growth driven by exports appears to be more a mirage than a reality. On the one hand, the only benefits resulting from maquiladora activity are the direct wages and salaries that it pays because it uses relatively few imputs from other Mexican firms or industries. On the other hand, the flow of FDI toward services rarely results in technology transfer. As has already been shown, FDI translates into the acquisition of existing firms as part of foreign firms' consolidation or their introduction into the Mexican market (Mattar et al. 2003).

FIGURE 2-I

Foreign direct investment in Mexico, 1994-2004



SOURCE: Bank of Mexico

Table 2-1
Open unemployed population, by reason for leaving employment and by duration of unemployment

	Total	Unemployed: no work experience	Layoff	End of temporary work	Job dissatisfaction	Other reasons
	Second trimester 2000					
Number:	659,388	82,651	151,450	122,286	120,632	182,369
Duration:						
1 - 4 weeks	59%	44%	56%	62%	65%	62%
5 - 8 weeks	16%	18%	16%	15%	16%	16%
9 and more weeks	25%	38%	28%	23%	19%	22%
	Second trimester 2004					
Number:	1,092,692	143,866	313,744	209,806	151,070	274,206
Duration:						
1 - 4 weeks	59%	54%	55%	64%	64%	60%
5 - 8 weeks	14%	13%	16%	11%	17%	14%
9 and more weeks	27%	33%	29%	26%	19%	26%

SOURCE: Trimestral Employment Survey, INEGI.

The evolution of employment, earnings, and the distribution of income

One of the elements used most often to affirm the export-led growth model, and NAFTA in particular, is Mexico's low unemployment rate, in both absolute and relative terms. However, the following question always hangs in the air: Why is the country's unemployment rate so low? To respond to this question, we began by analyzing the characteristics of those who are currently unemployed. The majority of Mexico's unemployed are young people (over 50% of the unemployed are under 25 years of age), with slightly higher academic preparation than the national average (over 50% have at least some college studies). Most are not heads of households (80%). While the unemployment rate has grown throughout the 2000-04 period, it has not achieved the record levels observed following the 1995-96 crisis.

Nevertheless, **Table 2-1** reveals a disturbing fact. Between the second quarter of 2000 and the second quarter of 2003, the total number of unemployed increased 50% and the average period of time unemployed also increased.[4] The data also show that both layoffs and the termination of temporary work positions are increasing.

The average duration of unemployment was fewer than five weeks in 2000, which demonstrates the frictional nature of open unemployment in Mexico. It has been shown that the majority of those who gain employment do so via the micro-business sector, meaning economic entities with five or fewer workers, including one person operations (Salas 2003). (This theme of micro-businesses will be addressed in the sub-section, *Open Employment*, on p. 39.)

Job creation and job loss

Beginning with the agricultural sector, agricultural employment in Mexico increased slightly at the end of the 1980s, achieving employment for 8.1 million Mexicans at the end of 1993, barely before NAFTA entered into force. Thereafter, employment in the sector began a constant reduction, falling to 6.8 million employed workers by the end of 2004. In fact, the population dedicated to agricultural activities fell from 26.8% in 1991 to 16.4% in 2004, a significant decrease.

Table 2-2
Job losses in corn production, 1991-2000

	Total	Men	Women
Personal consumption	-670,000	-597,000	-73,000
Sales*	-343,000	-309,000	-34,000
Total	-1,013,000	-906,000	-107,000

* Includes bean producers.

SOURCE: Special tabulations of the agricultural module of the National Employment Survey 1991 and 2000, INEGI National Employment Survey 1991 and 2000, INEGI.

The principal affected parties are corn producers, with a total loss of 1.013 million jobs (**Table 2-2**). Additionally, 142,000 jobs were lost in the cultivation of flowers and fruits, which have been the primary products of agricultural exports (USDA 2003). This job loss leads Polaski to declare, "Therefore, the liberalization of agricultural trade linked to NAFTA is the most important factor in the loss of agricultural employment in Mexico" (Polaski 2003, 20).

Considering disaggregated data from 30 economic sub-sectors, one aspect that stands out is that, while the largest number of the (economically) active population at the beginning of the 1990s was in agriculture, by the beginning of the 21st century, the largest sector was retail trade (16.2% in 2003). This process is framed by a light recovery of the manufacturing sector (between 1991 and 2003, it grew from 15.7% to 17.3%) and accelerated growth of manual labor in the services sector (from 33.6% a 39.1%).

In the least urbanized zones (those with fewer than 100,000 residents), the percentage of the population active in the agriculture sector during the 2000-03 period fluctuated around 28%, but at the beginning of the 1990s that figure was greater than 44%. The largest drop in the sector is in male workers, which fell from 53.4% to 36.3% of the employed population, but the decrease of females was also appreciable (from 20.5% to 9.1%).

Next we examine the population engaged in non-agricultural work with a detailed focus on their occupations, considering the varying outcomes for employers, wage-earning workers, self-employed workers, and workers receiving no remuneration.[5] The proportion of wage-earning workers in the total share of workers active in this sector fell from 74% in 1991 to a minimum of 67% in 1998, to later recover slowly to 68% in 2004. The positions for wage-earning workers represented 65% of the new jobs created between 1991 and 1998 in the most urbanized areas, while this category represented 64% of the positions created between 1998 and 2004. Wage-earning work is not accessible to all people. As people age, they are resigned from duty (they are encouraged to resign voluntarily, but sometimes they are laid off) in such a way that the proportion of wage-earning workers falls as age increases, i.e., there are fewer wage-earning workers in older age groups.

Among young people, the proportion of wage-earning women by age group is greater than that of men.

Self-employed workers represent another important group of those working in the non-agricultural sector. The self-employed share oscillates around 24%, while the rest of the population is split evenly between employers and workers without remuneration, each group accounting for 5% of the total.

Between the second quarter of 2000 and the second quarter of 2004 2,788,851 jobs were created, of which 54% were wage-earning jobs, 4% were employers, and 43% were jobs created through self-employment. Next we examine the characteristics of the wage-earning positions that were created during the period in question.

To begin with, 23% of the new wage-earning positions generated between the second quarter of 2000 and the second quarter of 2004 have no social benefits, while only 37% of the new jobs have full social security benefits. These data suggest that the process of making employment more precarious may have been accentuated.[6] Further, in the second quarter of 2004, 43% of the total of wage-earning workers labored under a verbal contract, of which 86% received no

social benefits. Of the wage-earning workers laboring under permanent contracts, 3% do not receive social benefits. Thus, lack of social protection is quite extensive in Mexico.

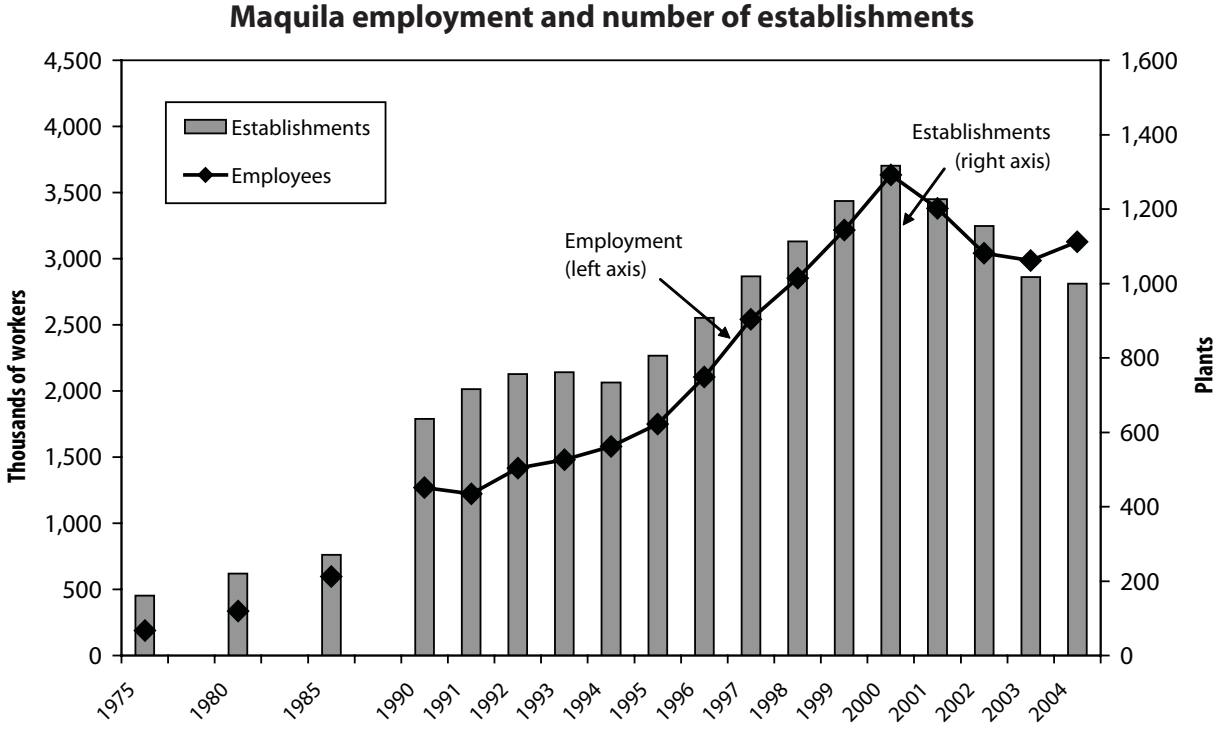
Upon investigating wage distribution patterns (where positions were created according to the size of the economic entity), another facet of precarious employment emerges: 65% of all new jobs were created in micro-businesses (economic entities with up to five employees), and 52% of new wage-earning jobs were found in such entities, which are characterized by low wages, low productivity, and a low level of technology.

In summary, the creation of jobs between 2000 and 2004 was relatively dynamic, given that, on average, approximately 700,000 job positions were created annually. Nevertheless, this rate is inferior to that of the decade of the 1990s when approximately 1 million new positions were created each year. Furthermore, as shown above, a significant share of these new positions were precarious jobs.

Maquiladoras

Now the discussion turns to the major components of the non-agricultural economy. Between 1980 and 1993, the manufacturing sector as a whole grew by fewer than 100,000 jobs, of which 40,000 were in maquiladora activities. Between 1991 and 2000, manufacturing grew by 2.7 million jobs, a significant number of which—800,000 jobs—resulted from maquiladora activities. But as some have pointed out (Polaski 2003; Gruben 2001), the maquiladora industry grew due to trade and not due to NAFTA. In fact, as Polaski (2003) shows, while it is not possible to know precisely how many jobs were created by the non-maquiladora export industry, it can be estimated that between 1994 and 1999, this sector grew by 500,000 jobs. Starting with the stagnation of 2000, total manufacturing employment began to decline, especially in the maquiladora sector. In fact, although manufacturing employment recovered slightly in 2004, there were still 180,000 fewer jobs in this sector than there were in the peak year of 2000 as shown in **Figure 2-J**.

FIGURE 2-J



SOURCE: INEGI, Economic Data Bank and NAFIN, Mexican Economy in Numbers.

An important series of questions arises here concerning the type of employment created in manufacturing in general and in the maquiladora sector in particular. Wages in the maquiladora sector are almost 40% lower than those paid in heavy non-maquila manufacturing (Salas and Zepeda 2003a). In fact, a recent study by Bendesky et al. (2004) shows that productivity in the maquiladora sector is stagnant, and its average technological base is weak. From this it can be inferred that the maquiladora sector is stuck in a trap of low productivity growth, reduced skills, and sustained by low wages. In fact, Figure 2-J shows that the number of maquiladora companies has diminished since 2000, which is the result of various companies leaving the country to go to other countries with wages even lower than those in Mexico.

The options for the majority of the working-age population are concentrated in service activities. In fact, as was shown earlier, the share of unemployed people who find employment within one month or less is 59% and a majority of those who find employment do so in very small scale activities. These activities are found in the trade and services sectors, which account for 70% of the non-agricultural work force. Sixty-seven percent of trade-based operations and 47% of service entities employ five workers or fewer. The working conditions, income, and productivity in these operations are very precarious, and yet they represent an earning opportunity for large groups of the population.

Open employment

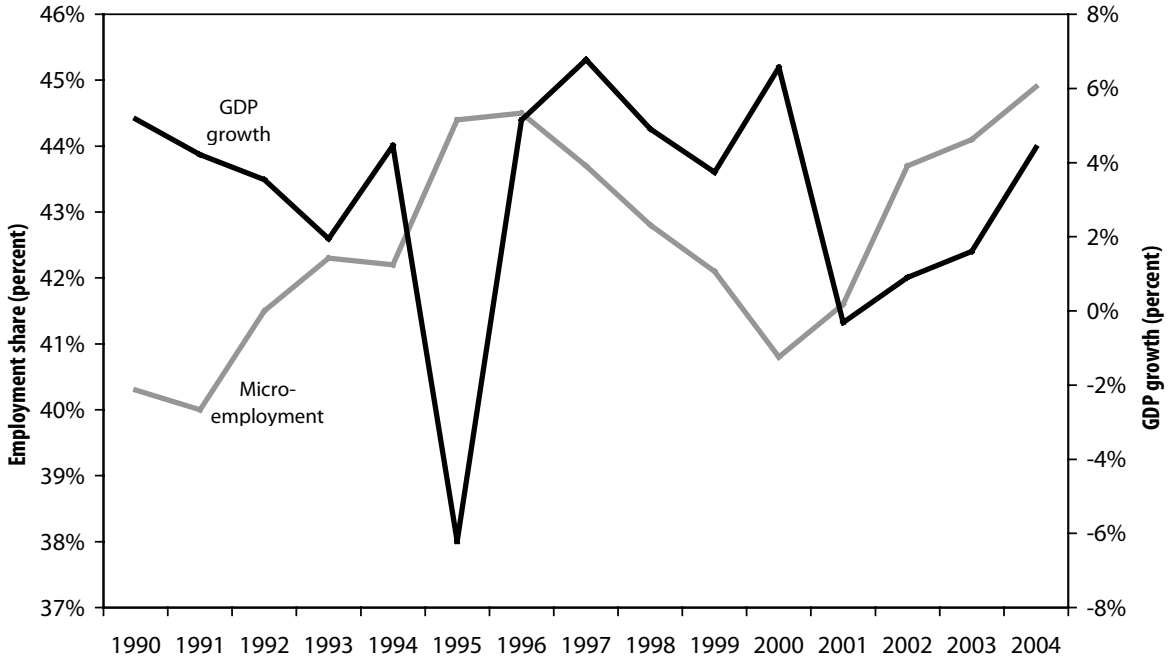
Now we are able to respond to the question posed earlier, related to the reduced rate of open unemployment.

The mechanism is the following: because the labor force is growing much faster than employment in larger companies, self-employment or wage-earning employment in micro-businesses provides the only job opportunity for an important number of workers. Faced with the alternative of not finding any job, people take jobs in the micro-business sector where they generally are paid a low wages.

In this way, the micro-business sector acts as a full-employment buffer, absorbing and retaining a large share of workers as GDP growth slows and accelerates, as seen in **Figure 2-K,** which compares the rate of growth of GDP with the

FIGURE 2-K

Micro-employment share and GDP growth in Mexico



SOURCE: INEGI, Sistema de Cuentas Nacionales, various years; for the micro-units data: INEGI, Banco de Información Económica.

proportion of people engaged in very small scale activities. The share of workers in this sector has trended up over time, rising from 40% in 1990 to 45% in 2005, at similar stages of the business cycle. Furthermore, the share of micro-employment is counter-cyclical, rising during recessions and falling during periods of recovery, thus confirming the buffer role of micro-business activity.

Migration

Another element that explains the low unemployment rate is illegal migration to the United States. Between 1990-94, the average annual flow of illegal migrants has been estimated to have been 260,000 people (Passel 2005). After 1994, the rate of immigration increased significantly: between 2000-04, illegal migration is estimated to have totaled approximately 485,000 persons per year (Passel 2005). In this way, migration serves as an escape valve that reduces the demand for new jobs.

Earnings from work

In the case of agriculture, wage-earning women worked fewer hours per week than men (29 and 41 hours, respectively) in 2003, but they received better real hourly wages (3.4 pesos compared to the 2.7 pesos paid to men). The difference reflects the fact that rural wage-earning female workers are generally employed by larger productive entities (with 16

Table 2-3
Monthly earnings by type of job
(constant 1993 pesos)

	1990	1994	1996	2000	Annual growth rate 1994-2000*
16 cities[1]					
Total employed	1,170	1,320	980	1,176	-1.9%
Self employed	1,001	1,017	772	974	-0.7%
Employed in entities of five or fewer workers	755	518	408	509	-0.3%
Mobile/street vendors	826	596	536	703	2.8%
Full-time, year-round employees	1,166	1,386	1,039	1,196	-2.4%
Employed in establishments of 250 or more workers	1,187	1,501	1,240	1,406	-1.1%
Employed men with basic education	1,027	997	701	871	-2.2%
Employed men with advanced education	2,703	3,406	2,412	2,874	-2.8%
Employed women with basic education	608	634	438	532	-2.9%
Employed women with advanced education	1,600	2,049	1,529	1,785	-2.3%
National					
Workers in 109 heavy manufacutring industries[2, 3]	1,348	1,536	1,273	nd	
Employees in 109 heavy manufacturing industries[2, 3]	3,375	4,451	3,903	nd	
Workers in 205 heavy manufacturing industries[2]	nd	1,412	1,095	1,269	-1.8%
Employees in 205 heavy manufacturing industries[2]	nd	3,984	3,246	3,578	-1.8%
Maquiladora industry[4]	1,583	1,645	1,460	1,672	0.3%

1. Data corresponding to the second trimester of each year of the National Urban Employment Survey (INEGI) for 16 cities.
2. Data from the Monthly Industrial Survey (INEGI).
3. The 1994 figures truly reflect 1995.
4. Data from the Statistics from the Export Assembly Plant Industry (INEGI).
*Compound average growth rate.

SOURCE: Zepeda 2003, unpublished document.

or more workers). In contrast, women landowners (of whatever size plot of land) work longer days than men yet earn less—female landowners work 55 hours a week while male landowners only work 35 hours. The value of this work for women is the equivalent of 2.9 pesos per hour while for men, the value equivalent is 7.8 pesos per hour.

The uneven evolution of wages and earnings in rural areas has favored landowners. Between 1991 and 2003, remuneration paid to day laborers in the agricultural sector fell significantly from 535 to 483 pesos per month (unpublished tables from the Agricultural Module of the Encuesta Nacional de Empleo, Instituto Nacional de Estadística Geografía e Informática (INEGI)); earnings by self-employed field workers collapsed from 1,959 pesos in 1991 to 228 pesos in 2003, an 88% decline. In the same period, landowners increased their earnings from 626 to 1,625 pesos.[7]

Table 2-3 shows the global evolution of earnings from work between 2000-04. Earnings from work is another element that has received considerable attention, given that it is widely claimed that such wages have increased significantly. As can be seen, only wages for mobile/street vendors increased significantly, at 2.8 percent per year over six years. However, these levels do not even manage to recover the cumulative losses dating from 1990, as shown in Table 2-3 (Salas y Zepeda, 2003a, 68). Small wage gains in the maquiladora sector were more than offset by losses of 1.8% per year for employees in 205 heavy manufacturing industries, which were more than twice as large as wages in the maquila industries.

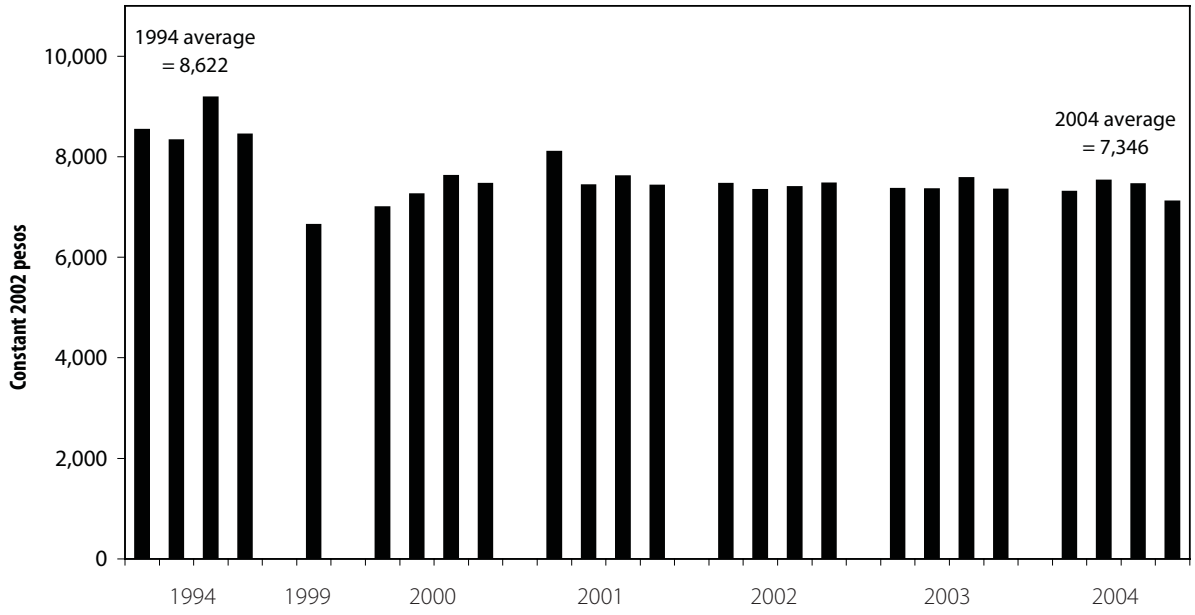
As shown in Figure 2-K and Table 2-3, not even the relative stability of prices, which characterized the country beginning in 1996, has lent itself to the recovery of purchasing power of earnings from work.

Note that Table 2-3 only reports average earnings, but says nothing about the dispersion of wages within each sector. The benefits of income growth are not uniformly distributed across the population; other research has shown that income dispersion in general and wage dispersion in particular is relatively large (Salas and Zepeda 2003a, 73).

Two additional problems with the information presented in Table 2-3 are that the coverage of each group within the series varies over time, and they do not provide information on changes in average compensation levels over time. **Figure 2-L** was constructed using the same set of 16 cities between 1994 and 2004, so comparison problems do not arise.

FIGURE 2-L

Real household labor income in Mexico, 1994, 1999, 2000-04 (by quarter)



SOURCE: Author's calculations using unpublished INEGI data.

It shows the weak performance of the real income growth process. From the last quarter of 1999 to the corresponding quarter of 2004, the total income increased only 7%. Furthermore, average household labor income in 2004 (over the four quarters) was 15% *lower* than incomes in 1994.

Income distribution

This section begins with the manner in which income is distributed in rural areas, where, in response to lowered earnings, government programs were put into place to offset these earning losses. Between 1992 and 2000, the proportion of monetary transfers in the income of rural zones increased from 10% to 18%. During this same period, the percentage of rural homes that received transfers swelled from 25% to 60% (INEGI, Encuesta Nacional de Ingresos y Gastos de los Hogares, several years). By 2002, transfers had increased to 19.4% of total income, and the percentage of dependent homes rose to almost 70%.

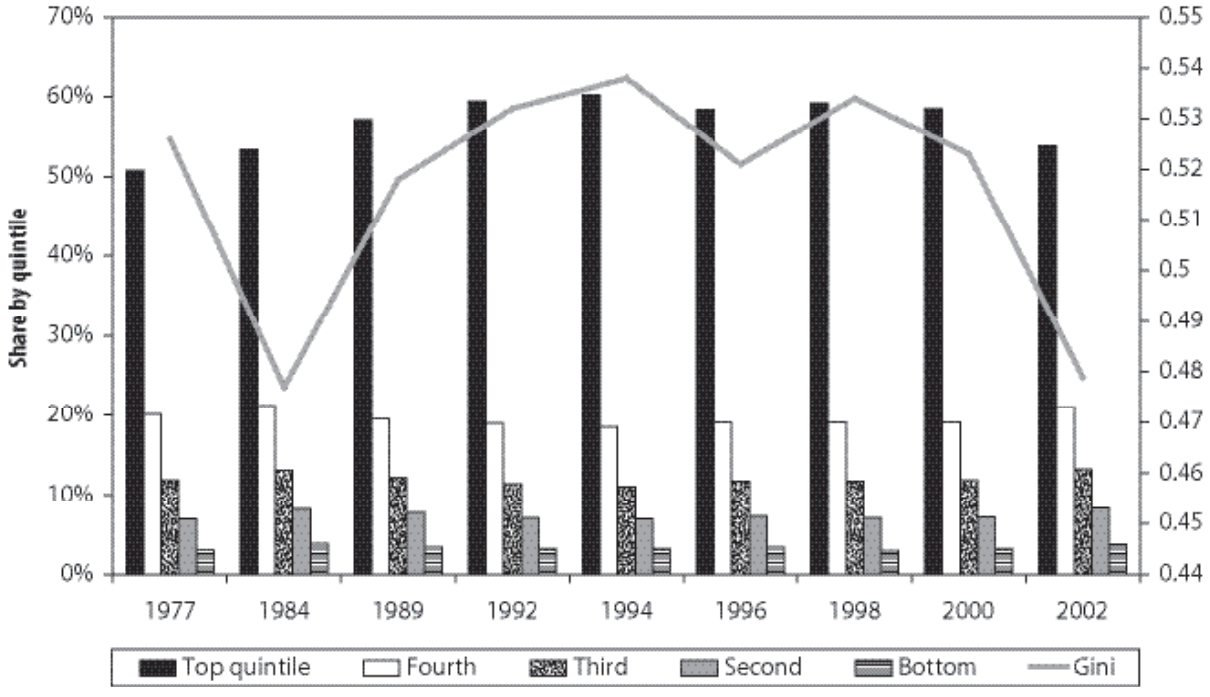
Such transfers were most often focused on the poorest peasants. For the poorest 10% of rural households, the situation is as follows: in 1992, 25% of the poorest 10% of households depended on these transfers to obtain 15% of their total income. By 2000, 65% of these households used this method to acquire 37% of their income. This situation worsened in 2002, when 74% of the poorest peasants obtained 38% of their income from this source.

Rather than designing support programs aimed at generating employment and raising productivity, the government is satisfied to transfer resources, in addition to the remittances that Mexican workers in the United States send to Mexico, which total as high as $15 billion (Banco de México 2005).

Income distribution improved between 2000 and 2002, above all for families in the 20% poorest (lowest quintile) of the population (**Figure 2-M**), the lowest four quintiles all gained income shares at the expense of the top in 2002.

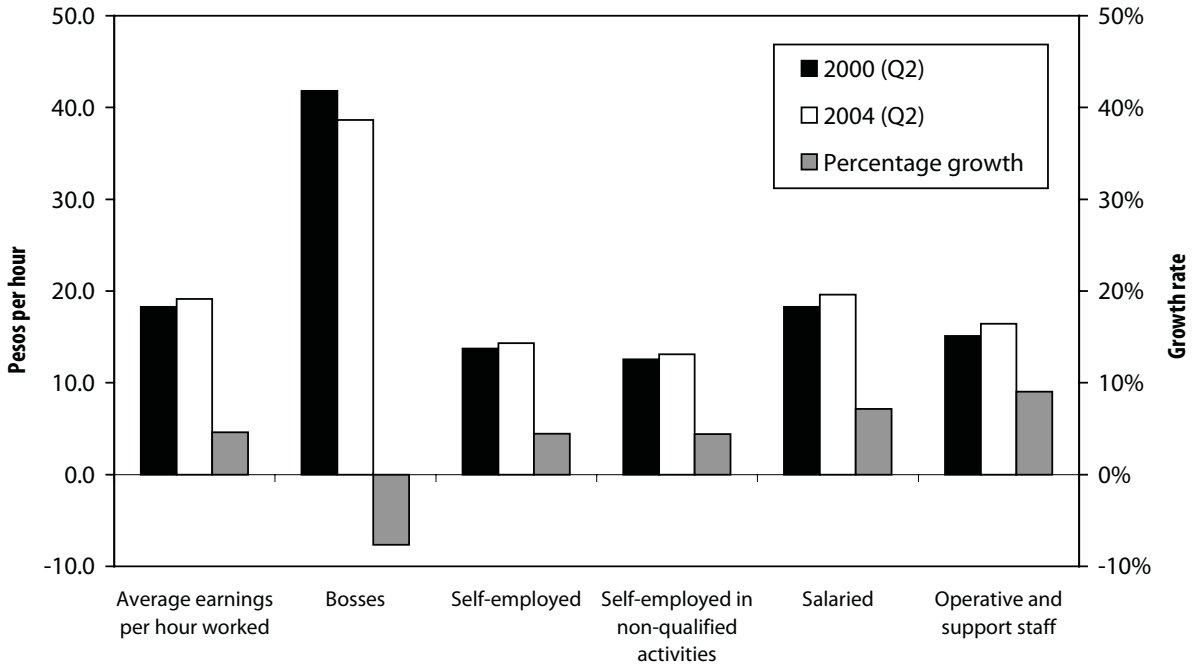
FIGURE 2-M

Real household labor income in Mexico, 1994 - 2004



SOURCE: Cortés, Fernando, Evolution of inequality in the last quarter century and INEGI, National Survey of Household Earnings and Expenses ENIGH 2002 - National Survey of Household Earnings and Expenses.

FIGURE 2-N



SOURCE: National Employment Survey, INEGI

Nevertheless, inequality is lower now than it was at any time since in 1984. The improvement for the middle quintile groups can be explained by a diminished earnings gap between owners and wage-earning workers (**Figure 2-N**) and a modest increase in wages since 2000. However, the promise of greatly improved living conditions for the majority remains largely unfulfilled.

Conclusion

The first section showed how the export-oriented model with reduced state participation in directing the economy and unrestricted support for an unregulated market economy led to a period of unstable growth. NAFTA, which is only the most recent expression of this model, bound the country to a model proven to be inefficient in fulfilling a promise essential to every successful development model: an improvement in the living conditions of the majority. Expressed in another way, the current model is exclusionary and is inefficient even in achieving its own objectives. The trade balance continues in deficit, and production levels depend on increasing imports over time. Foreign investment has grown, but mostly in the purchase of existing assets, which neither creates improved conditions in the productive stock nor achieves greater integration of manufacturing into the national economy.

As such, job creation has been left to fate; there is no employment policy other than that of low wages. Additionally, one-sixth of the population that worked in agricultural activities in the beginning of the 1990s has been displaced from the field, literally. This population migrates searching for any place to work, be it in other states of the republic or outside of Mexico.

With respect to generating non-agricultural employment, most recent growth has been concentrated in jobs without social benefits, in small-scale and low-productivity activities. We are witnessing a systematic process of destabilization of labor markets, which will be exacerbated if the labor reform proposed by the party in power is approved. Addition-

ally, the evidence presented indicates the need to consider an integrated U.S.-Mexico labor market, not only due to the presence of Mexican workers in the United States, but also to the impact that low-wage policies have in Mexico on the working conditions in the neighboring country. In other words, when the relationship between the two countries is examined, the analysis must include both employees and employers of Mexico as well as the United States. Neither the workers nor the nations can be mutually exclusive.

Mexico's experience should serve as a warning concerning the dangers of any trade agreement, bilateral or multilateral, which is similar to NAFTA. As the poet John Donne wrote, "Therefore, never send to know for whom the bell tolls, it tolls for thee."

Endnotes

1. Refer to the article by Boltvinik y Hernández Laos (1981) for a discussion of the exhaustion of the domestic market based development model.
2. For a long time, capital goods never accounted for more than 8% of total exports. Beginning in 1997, this percentage began to grow, especially the share of those capital goods produced by the maquiladora industry. Nevertheless, capital goods continue to account for a low percentage of total exports. (Source: Bank of Mexico, Balance of Payments at http://www.banxico.org.mx/eInfoFinanciera/FSinfoFinanciera.html.
3. Maquiladora activities flourished via the use of the Code of Customs Tariffs in the United States (rule HTS 9802), through which the companies of that country may send domestic manufactured inputs abroad and then import finished and semi-finished products back into the United States by paying a customs tariff based only on the value added in the foreign country.
4. The share unemployed for five to eight weeks fell by 2 percentage points, while the share unemployed for nine weeks or longer increased by the same amount, thus increasing the average duration of unemployment
5. In Mexican labor statistics, hourly workers are known as "trabajos a salariados," or salaried workers, to distinguish them from self-employed and informal-sector workers. We refer to them in this report as "wage earning."
6. Precarious employment is defined as a worker not under the protection of labor laws (even if he's entitled to the protection), has no permanent contract, has low wages, and in general, works under bad labor conditions (Rodgers 1989).
7. This situation may in part result from problems comparing data from National Employment Surveys conducted between 1991 and 2003, yet even taking this into account does not eliminate the evidence of a large benefit for rural land owners who employ wage-earning workers.

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BACKSLIDING
The impact of NAFTA on Canadian workers[1]

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CANADIAN CENTRE FOR POLICY ALTERNATIVES

This section argues that the impact of the Canada-U.S. FTA and NAFTA, together with its neo-conservative policy siblings, has been adverse when measured against the standard that ultimately counts when evaluating public policy: has it bettered the lives of people affected by it? Not only has NAFTA failed to deliver the goods it promised, its effect on the well-being of a large majority of Canadians and on the social cohesion of society has been negative. Some sectors of the economy and some income groups have benefited, but the overall effect has been negative. While average income growth under free trade has registered its worst performance of any comparable period since World War II, income inequality (after tax and transfers) has grown for the first time since the 1920s.

The most striking feature of this growing inequality has been the massive gains of the richest 1% of income earners at the expense of most of the population. The growth of precarious employment, the undermining of unions as a countervailing power to transnational capital, the erosion of the Canadian social state, and heightened economic dependence on the United States are the hallmarks of the free trade era in Canada.

Parameters and promises

Any Canadian analysis of the effects of "free trade" begins not January 1, 1994, but five years earlier on January 1, 1989, when the Canada-U.S .Free Trade Agreement (CUFTA) was implemented. NAFTA extended and deepened the CUFTA; and NAFTA has been the template for other trade deals including the U.S.-Central American Free Trade Agreement (CAFTA), and the indefinitely stalled Free Trade Area of the Americas negotiation (FTAA).

Second, this analysis must recognize the difficulty of isolating the impacts of NAFTA from those of other neo-conservative or market-centered policies: monetary austerity, tax cuts, public sector cuts, privatization, deregulation, etc. Different components of this policy package may be dominant at different times. What is important is that they reinforce each other and their effects are cumulative. NAFTA is both an integral component of this policy package and also a mechanism for locking it in.

Third, NAFTA is about much more than deregulating trade. It is about removing restrictions on the mobility of capital. It goes way behind the border to the heart of domestic policy making. It is an economic constitution, conferring enforceable rights on investors, limiting the powers of government, and making it extremely difficult for future governments to change. At its core, NAFTA is about shifting the power in the economy from government to corporations, from workers to corporations.

Finally, impacts must be evaluated against claims made by Canadian free trade proponents. Among the promised benefits were the following:

- Increased economic growth, income, and employment—rising living standards that would be widely shared across all sectors, regions, and income groups.

- A closing of the longstanding productivity gap with the United States, and the creation of a more diversified, more efficient, and more knowledge-based economy.
- The ability, with the promised stronger economy, to maintain and strengthen the unique features of the more generous Canadian social model.

The economic record

Economic integration has deepened in the wake of the CUFTA and NAFTA. Two-way trade and investment flows have grown immensely. Exports as a share of Canada's GDP grew from 25% to about 40%. Canadian manufactured exports grew from one-third to over one-half of total output. Conversely, almost one-half of the Canadian market for manufactures is now met through imports.

The share of Canadian merchandise exports going to the United States grew from 73% in 1989 to 84% in 2005. The share of imports coming from the United States remained steady at about 68% until the late 1990s but since 2000 dropped steadily to 57% by 2005. One-half of all bilateral trade is intra-firm and is much higher in the manufacturing sector.

Expectations that Canada would become a magnet for foreign direct investment (FDI) from companies wanting to export into the U.S. market have not materialized. Canada's share of inward FDI flows to North America dropped from 17% to 13% during 1993-2004. Indeed, the outflow of Canadian direct investment abroad (including to the United States and Mexico) exceeded FDI inflows by one-third during this period.

Much has been made of Canada's NAFTA-driven trade success, but the reality does not live up to the hype. Canada's merchandise trade surplus with the United States—which grew from $48.6 billion in 1996 to $124.6 billion in 2005—is less than meets the eye.[2] (It should be noted that deficits on the services and investment income accounts reduce the merchandise trade surplus by about one-third.)

Canadian merchandise exports to the United States grew by $138 billion from 1996 to 2005. Imports from the United States grew by $63 billion during this period. Exports peaked in 2000, fell off in 2001 and 2002, and then—spurred by the commodities boom—rose again over the last three years. Imports from the United States also peaked in 2000, fell off in 2001 and 2002, and then rose, but not as rapidly as exports.

According to Statistics Canada researchers (Cross and Ghanem 2005, 3.1), much of the growth in gross exports over the last decade reflected the markedly elevated use by Canadian-based companies of imported inputs in their production, significantly overstating the employment impact of the growth of manufactured exports. (For example, more than one-half of auto inputs are now imported.)

Furthermore, oil and gas exports alone accounted for close to 40% of the rise in exports to the United States over the last 10 years, and during the current resources boom (2003-05) accounted for 62% of the increase in exports to the United States.

The commodities boom (energy, forest and agricultural, and minerals) has boosted the share of resources in Canada's overall exports, from 40% to 50% over the last three years. Stripping out the higher import content of manufactured exports, the share of resources has risen to over 60% of total value-added Canadian exports (Cross and Ghanem 2005, 3.1). Although these sectors have experienced significant job growth, their contribution to employment overall is small.

Several other inconvenient facts contradict the claims of NAFTA-driven trade success. First, there is no evidence of Canada gaining special U.S. market advantage under NAFTA. In fact, Canada's share of U.S. imports actually fell after 1994. Second, a federal Industry Department study found that by far the largest factor—accounting for 90% of the 1990s export surge—was the low Canadian dollar (Ram et al. 2001). Finally, another Industry Department study found that the import content of Canadian exports increased to the point where, by 1997, more jobs were being destroyed by imports than created by exports (Dungan and Murphy 1999).

Contrary to the promise of free trade proponents, diversification of Canada's industrial base has been disappointing. Although there was an increase in some high-tech sectors—notably telecommunications (until the 2001 meltdown) and

aerospace—the trade deficit in high-tech products remains high, the capital goods sector remains weak, and Canada's poor record in private sector R&D persists. Relative to GDP, Canada's exports of higher value-added products—including autos, machinery and equipment ,and consumer goods—have fallen by one-quarter since 1999 (Stanford 2004, 9). Ironically, NAFTA eliminated many of the policy tools that could help shift competitive advantage to more knowledge-intensive activities.

Restructuring in the Canadian manufacturing sector has been far-reaching. By 1997, 47% of the plants in existence in 1988, accounting for 28% of the jobs, had closed. On the other hand, 39% of all plants in 1997, accounting for 21% of all jobs, did not exist in 1988 (Baldwin and Gu 2003). The plants that closed tended to be larger, higher productivity plants, and those that opened were smaller, lower productivity establishments. This helps to explain the continuing manufacturing productivity gap.

Big business, by and large, has done well under free trade. A study of 40 non-financial member companies of the Canada's main big business lobby, the Canadian Council of Chief Executives, found that their combined revenues jumped 105% between 1988-2002, while their overall workforce shrank by 15% (Campbell and MacDonald 2003).

Canadian manufacturing employment, which suffered major losses—nearly 400,000 jobs—in the first four years of free trade, grew steadily thereafter, and by 2001 had returned to its 1989 level. However, its vulnerability to exchange rate movements was evident as the Canadian dollar in late 2002 began to climb. Manufacturing employment has dropped by 8.5% or 198,000 jobs (to March 2006). According to Stanford (2004), based on historical experience, manufacturing job loss could reach 400,000 jobs by 2007 if the Canadian dollar stays in the 85 cent U.S. range.

CUFTA was sold as a solution to Canada's persistent unemployment problem. Though there are other factors at play, the record does not bear this out. Average unemployment during the last 15 years has remained about the same as the average rate during the previous 15 years. Canada's unemployment rate was 6.8% in 2005, modestly lower than the 7.6% in 1989 (1.2 million workers are currently looking for work). This compares with U.S. unemployment, which was 5.1% in 2005, slightly below the 5.3% level in 1989.

Nor has promise of increased employment quality—high-skill, high-wage jobs—under free trade materialized. On the contrary, displaced workers in the trade sectors have moved to the lower-skill, lower-wage jobs in the services sector. Precarious forms of employment (part-time, temporary, and self-employment) have also increased, disproportionately impacting women and workers of color.

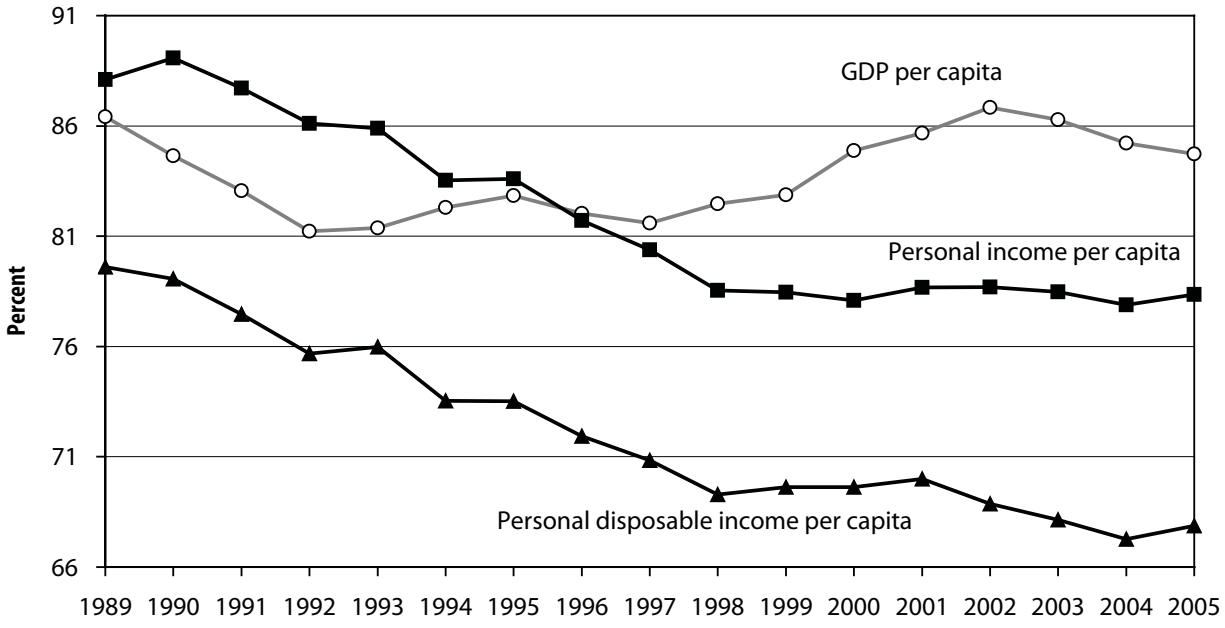
Furthermore, the productivity gap with the United States that was, according to proponents, supposed to narrow under free trade, has in fact widened. Canadian labor productivity (GDP per hour worked) rose steadily in relation to U.S. productivity during the 1960s and 1970s, peaking at 92% of the U.S. level in 1984. Thereafter, it slid to 89% in 1989 and by 2005 had fallen to just 82% of U.S. productivity—below where it was in 1961.[3]

Despite slower (almost flat) wage growth in Canada, labor cost competitiveness (unit labor costs) expressed in Canadian dollars deteriorated significantly compared to U.S. costs. It was only the depreciation of the Canadian dollar that preserved cost competitiveness. Unit labor costs expressed in U.S. dollars fell 19.7% in Canada compared to 7.2% in the United States from 1992-2002. Since then, this advantage has been eliminated by the 40% appreciation in the Canadian dollar.

If free trade was supposed to usher in a new era of rising living standards, thus reversing the sluggishness of the 1980s, the record reveals quite the opposite. Annual growth in average personal income per capita fell to a plodding 1.55% per annum in the 1980s, from the rapid 3.9% annual average gain during the 1960s and 1970s. From 1989-2005, personal income per capita growth continued its slide to a snail's pace of 0.63% yearly.[4] What is particularly striking is that GDP per capita was growing almost three times faster—1.57% annually—than personal income. While U.S. GDP per capita grew at an annual rate of 1.80%, slightly faster than the Canadian rate, U.S. personal income per capita grew at an annual rate of 1.05%, almost twice as fast as the Canadian rate from 1989-2005.

FIGURE 3-A

Relative aggregate income levels in Canada, 1989-2005
(Canada as share of the United States)



SOURCE: Statistics Canada.

Compared to American performance, Canadian GDP per capita fell sharply—from 86% of the U.S. level in 1989 to 81% in 1992—in the wake of the free trade recession (see **Figure 3-A**). From 1997 to 2002, a period of economic recovery driven in large part by a low dollar and strong U.S. demand for Canadian exports, GDP rose to 87% of the U.S. level. However, personal income per capita experienced no such recovery. It fell precipitously from 89% in 1990 to 78% of the U.S. level in 2000 where it has remained to the present. The growing divergence between the ability of GDP and personal income per capita to keep pace with American performance after 1996 is explained by the massive cuts to social programs, the increased share of the national income pie appropriated by profits and interest income, and the stagnation of wage income during this period. Only those at the top of the income scale saw significant growth in their earnings. It is dramatic evidence of how NAFTA-driven integration had altered relations of power between labor and capital, between state and market in the Canadian economy. This "structural adjustment" should come as no surprise. It is what NAFTA was designed to do.

The social record

Canada's social model differs significantly from the United States. Canada has a more equal distribution of earnings reflecting higher unionization rates, higher minimum wages, and a smaller pay gap between the middle and the top of the earnings spectrum. It has a more progressive tax system and a more generous system of social transfers.

Thus, while the average disposable income in the United States is higher than Canada, the bottom third of Canadians are much better off than their U.S. counterparts. The gap between middle-income Canadians and Americans is small, particularly if adjusted for out-of-pocket health care costs. It is only among the richest third where the disposable income of Americans is much greater than that of their Canadian counterparts. The after-tax-and-transfer income gap

between the top and bottom 10% of families is 4-to-1 in Canada compared to 6.5-to-1 in the United States. The poverty rate (defined as less than two-thirds of the median income) is 10% in Canada compared to 17% in the United States.

That said, growing wealth and income inequality and a shrinking Canadian social state have been hallmarks of the free trade era. NAFTA, while adding pressure, does not mandate this kind of harmonization downward to the U.S. social model. Nor is it inevitable. But NAFTA competitiveness considerations have provided a pretext for the tax-cut and "smaller government" agendas of neo-conservative provincial and federal governments.

It has already been noted above that average earnings hardly grew despite steady if unspectacular productivity growth. That most of the productivity gains went to profits in the free trade era is reflected in the rise of profit income as a share of GDP at the expense of labor income—from 10.6% in 1988 to a record 14.2% in 2005.

Table 3-1
Income distribution after taxes and transfers, by family quintiles

	Lowest quintile	Highest quintile
	(2004 Canadian dollars)	
1980	11,700	94,300
1989	13,200	94,800
2004	12,200	110,700
Change 1980-89	+ 1,500	+ 500
Change 1989-2004	- 1,000	+ 15,900
	(Percent)	
Change 1980-89	+ 12.8%	+ 0.5%
Change 1989-2004	-7.6%	+ 16.8%
1980: income share	5.0%	40.9%
1989: income share	5.6%	40.6%
2004: income share	4.8%	44.0%

SOURCE: Statistics Canada, Cansim, Table 202

After four decades of declining inequality, after-tax-and-transfer family income inequality widened during the free trade era. The bottom 20% of families saw their incomes fall by 7.6% during 1989-2004, while the incomes of the top 20% of families rose 16.8% (**Table 3-1**). During the 1980s, the incomes of the bottom 20% increased 12.8%, while those at the top stayed roughly the same. After declining during the 1980s, the incomes of top 20% of families grabbed an unprecedented extra share of the income pie during 1989-2004—41% to 44%—at the expense of the other 90% of Canadian families.

A study by Saez and Veall (2003) highlights how concentrated at the very top inequality growth has been. The top 1% of Canadian taxpayers—similar to their American counterparts—increased their share of total taxable income from 9.3% to 13.6% during the first free trade decade, 1990-2000. The top 0.1% increased their share even more sharply—from 3.0% to 5.2%. The authors attribute this development in large part to pressure from deepening integration with the United States, where income inequality is much greater, and where Canadian senior executives can move more freely across the border. Subsequent U.S. tax cuts under the Bush Administration for the highest income earners have likely aggravated this situation.

The wage data compiled by Saez and Veall (2003) are even starker. While the average Canadian wage increased 8% between 1990-2000, the average wage of the top 1% of wage earners jumped 64%. Wages of the top 0.1% soared by 100%. This latter group's wages—which were 23 times greater than those of the average wage earner in 1990—had almost doubled to 43 times greater by the end of the first free trade decade.

Recent research on inequality by Frenette et al. (2006), using census data for the first time, confirms that while increases in market income inequality during the 1980s were—in contrast to the United States—fully offset by the tax and transfer system, in the 1990s, large increases in market income inequality were not offset to nearly the same degree. Transfers had no effect on reducing market inequality growth, and taxes had only a small effect in reducing the increase. As a result, the first free trade decade saw overall income inequality increase for the first time since the 1920s. This inequality reflects the shrinking social safety net discussed below.

Tracking wealth trends in the free trade era is difficult because infrequent Statistics Canada wealth surveys preclude precise benchmarks. The latest was in 1999 and before that 1984. Nevertheless, the changes from 1984-99 contrast starkly with the 1970-84 period. For example, the bottom 10% of families increased their average wealth 28% from 1970-84, but their average wealth fell 78% in the 1984-99 period. Meanwhile, the average wealth of the richest 10% of families rose 51% during 1970-84, and continued to rise, 47% during 1984-99 (Kerstetter 2002). To the extent that wealth trends mirror trends in income distribution, the free trade portion of the period would likely have seen the steepest rise in wealth inequality.

Unionization rates also fell, another sign of the eroding bargaining power of workers in the free trade era. The most trade-exposed manufacturing sector experienced the steepest decline, from 45.5% in 1988 to 32.6% in 2003 (Jackson 2005, 170). This reflects disproportionate closures of unionized plants and a disproportionate concentration of new hiring in non-union plants; it also reflects legislative attacks in key jurisdictions on organizing capability. The decline in union density overall, though not as steep—39.5% to 32.4%—is ongoing and is evident across all sectors of the economy.

The shrinking social state

If the first half of the 1990s saw the most intense restructuring of the corporate sector, the second half of the decade saw the "structural adjustment" of the public sector. Federal non-military program spending cuts were the largest in Canadian history, bringing spending down to the level of the late 1940s. Canadian governments collectively reduced their program spending from 41% to 32% of GDP from 1992 to 2005. Governments reduced transfers to persons from 11.5% to 7.8% of GDP during this period (Mackenzie 2006). The cuts were accompanied by a major re-engineering of government—privatization, deregulation, and decentralization.

Reversing its pre-CUFTA promise, the big business lobby pushed hard for personal and corporate tax cuts on the grounds that they were necessary to maintain competitiveness, attract investment, and fuel growth. The federal government complied with major tax cuts, which shrunk federal revenue as a share of GDP from 17.2% in 1997-98 to 15.4% in 2004-05 (Finance Canada 2005), representing a loss to the federal treasury of $C20 billion in the latter year. Provinces also cut taxes, the combined effect of which was a loss to provincial treasuries of $C30 billion in 2005 (Lee 2006). The benefits of the tax cuts were tilted to high-income groups and to the corporate sector despite the fact that lower-income groups had borne the brunt of the program cuts. Canada has dropped in the Organization for Economic Co-operation and Development (OECD) ranks from a middle-level taxation country to the bottom third of OECD countries in terms overall taxation level.

Business also changed its tune around social programs once CUFTA was passed, arguing that cuts—especially welfare and unemployment insurance—were necessary to create a level playing field of competition. The largest of the unemployment insurance cuts were made by the Liberal government under cover of deficit elimination, but were also part of a strategy to increase labor market "flexibility." This was done by reducing the eligibility criteria and by reducing the duration and amount of benefits. Thus, the proportion of unemployed people who qualified for unemployment insurance dropped from 75% in 1989 to 38% by 2002, about the same level as in the United States. Hardest hit were the most vulnerable workers—part time, casual, and seasonal—mainly women.

The federal government also slashed welfare transfers to the provinces, breaking its 50-50 cost-sharing commitments under the Canada Assistance Program. Most provinces in turn slashed welfare support payments and bumped hundreds of thousands of people off the welfare rolls altogether.

While Canadian governments still spend significantly more on social programs and public services than their American counterparts, the difference has been shrinking rapidly. A federal Finance Department study found that Canadian government (non-military) program spending fell from 42.9% of GDP in 1992 to 33.6% of GDP in 2001. This compares with United States (non-military) program spending, which increased marginally from 27.7 to 27.9% of GDP

Table 3-2
Canada-U.S. fiscal comparisons

	Change in government spending as a share of GDP					
	1992			2001		
	U.S.	Canada	Gap	U.S.	Canada	Gap
Function						
Income security	7.9%	14.3%	6.4%	7.1%	11.0%	3.9%
Housing and community services	0.7	1.9	1.2	0.5	1.4	0.9
Economic affairs	3.2	5.8	2.5	3.2	3.5	0.3
Recreation and culture	0.3	1.3	1.0	0.3	1.0	0.7
Education	5.7	7.7	2.0	6.2	5.9	-0.3
Health	6.0	7.3	1.2	6.7	7.0	0.4
General public services	2.0	2.4	0.4	1.9	1.9	0.0
Public oder and safety	1.9	2.3	0.5	2.2	1.9	-0.2
National defense	6.0	1.7	-4.3	4.0	1.2	-2.8
Total program spending	33.7%	44.6%	10.9%	31.9%	34.8%	2.9%
Non-defense program spending	27.7%	42.9%	15.2%	27.9%	33.6%	5.7%

SOURCE: Government Spending in Canada and the U.S. Department of Finance Working Paper 2003-05.

in this period. The 2001 gap in non-military spending between the two countries—5.7 percentage points of GDP—is down dramatically from a 1992 gap of 15.2 points of GDP (**Table 3-2**). Thus, if Canadian governments were still spending at 1992 levels, they would have spent an additional $C103 billion on programs and public services in 2001 alone.

Canada now spends proportionately less than the United States on public education, only slightly more on health care (though more efficiently because of not-for-profit delivery and a single-payer Medicare insurance system.) It continues to spend substantially more on income security and, though the gap has shrunk by half, more on housing and community services.

Conclusion

Economic and political elites promised that free trade would usher in a golden era of prosperity for Canada. It clearly has not delivered the goods. Nevertheless, these elites simply disregard the "inconvenient facts" presented here as they push for even deeper forms of continental free market integration. NAFTA, they say, has greatly increased exports and investment; Canada's trade surplus is up, unemployment is down, inflation is low, wages are flat, business is experiencing record profits, growth is steady. Therefore NAFTA has been a success. What is there to re-examine? Let's just move forward, they say, and build on our success.

Instead of continuing down this road, it is time to look back at the road already traveled. We should undertake a comprehensive assessment of NAFTA's costs and benefits, and take a hardheaded look at the advantages and disadvantages of withdrawing from NAFTA. It is time to stand back and ask: is NAFTA working for us? Do the benefits outweigh the costs? Is it serving our needs? It is time to reconsider whether NAFTA in its current form, is contrary to the well being of Canadian workers (and indeed of workers in all three NAFTA countries) as the overarching framework for managing North American economic relations.

Endnotes

1. I am greatly indebted to Andrew Jackson, chief economist at the Canadian Labour Congress, from whose work I draw heavily for this paper.
2. All figures are in U.S. dollars unless specified otherwise.
3. Statistics Canada data posted at www.csls.ca.
4. Statistics Canada data posted at www.csls.ca.

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