10-12-2004

Washington State Job Exports: An Analysis of the Role Trade Plays in Manufacturing Job Loss

AFL-CIO

Washington State Job Exports: An Analysis of the Role Trade Plays in Manufacturing Job Loss

Abstract
[Excerpt] America's manufacturing crisis has hit Washington State hard. Since January 2001, Washington has experienced heavy job losses in manufacturing and information technology industries—sectors that typically provide higher wages and good benefits. As the discussion that follows shows, plant closures and layoffs associated with foreign imports and offshore outsourcing are a major cause of manufacturing's decline in Washington State.

Several factors account for manufacturing job loss in Washington and elsewhere, but there is little evidence about the role any single factor plays. Yet identifying causes and measuring their effects is important: Understanding the role of current policies in manufacturing job loss can help shape reasoned and reasonable changes that will maintain American competitiveness while creating and preserving good jobs in America.

Keywords
offshoring, outsourcing, Washington State, layoff, public policy, manufacturing, job loss, AFL-CIO, union, WARN

Comments
Suggested Citation
AFL-CIO. (2004). *Washington state job exports: An analysis of the role trade plays in manufacturing job loss.* Washington, DC: Author.

Washington State Job Exports: An Analysis of the Role Trade Plays in Manufacturing Job Loss

A Report of the

Job Export Database Project,
AFL-CIO Industrial Union Council

Washington, D.C.

October 12, 2004

Contacts

Joel Yudken
Sectoral Economist
AFL-CIO Public Policy Dept.
(202) 637-3958
jyudken@aflcio.org

Bob Baugh
Executive Director
Industrial Union Council
(202) 637-3966
bbaugh@aflcio.org

WASHINGTON STATE JOB EXPORTS: AN ANALYSIS OF THE ROLE TRADE PLAYS IN MANUFACTURING JOB LOSS

Introduction

Around the country, states have been shedding good, family-supporting manufacturing jobs at a fast pace since January 2001. Washington State is no exception: Between January 2001 and August 2004, Washington lost nearly one of every five of its manufacturing jobs, ranking the state 12th in the nation in the share of manufacturing jobs lost. This dramatic decline in manufacturing is one reason for the sobering difference in the quality of jobs the state is losing compared to those it is adding: Wages in industries that are now expanding within Washington State are a whopping 33.7 percent lower—$18,400 less—than wages in industries that are contracting.

Several factors account for manufacturing job loss in Washington and elsewhere, but there is little evidence about the role any single factor plays. Yet identifying causes and measuring their effects is important: Understanding the role of current policies in manufacturing job loss can help shape reasoned and reasonable changes that will maintain American competitiveness while creating and preserving good jobs in America.

In an effort to determine the role trade plays in the loss of U.S. manufacturing jobs, the AFL-CIO Industrial Union Council (IUC) has undertaken a first-of-its-kind research project, relying on publicly reported official data to measure trade-related job losses. Specifically, the IUC's **Job Export Database Project** is examining worker layoffs reported by states under the Worker Adjustment and Retraining Notification Act (WARN) and identified in Trade Adjustment Act (TAA) petitions and other data sources. Using these records, project researchers are able to determine and measure the extent to which competition from imports and the shifting of U.S. jobs overseas are the reasons for large-scale layoffs—that is, layoffs involving 50 or more employees by employers that have 100 or more workers. Because the project considers only large-scale layoffs, its estimates, which exclude smaller layoffs by large employers and all layoffs by smaller employers, are conservative and understate the number of manufacturing jobs states have really lost due to the trade.

Even with these limitations, the findings of trade-related job losses are significant and substantial. **Between January 2001 and May 2004, nearly 90 percent of the layoffs by Washington State manufacturers issuing WARN notices—27,196 job cuts in all—were trade-related.** Trade accounted for layoffs by one-third—14—of the 41 manufacturers making WARN-covered cuts. Competition from imports was the prime reason the state's aerospace industry, led by Boeing, shed more than one-quarter of its workforce, and the Seattle region, home to Boeing, lost 42,200 manufacturing jobs between January 2001 and May 2004. And over that period, nearly half of the non-Boeing layoffs by WARN-covered Washington manufacturers were trade-related.

The Job Export Database Project's findings regarding trade-related layoffs in Washington State are a wake-up call for America's policymakers. Along with analyses of manufacturing job losses in other states, the Washington State study is powerful evidence that current trade policies are hurting America's working families—and powerful ammunition in fighting to change those policies, to create and keep good manufacturing jobs in America.

The Manufacturing Crisis in Washington State

America's manufacturing crisis has hit Washington State hard. Since January 2001, Washington has experienced heavy job losses in manufacturing and information technology industries—sectors that typically provide higher wages and good benefits. As the discussion that follows shows, plant closures and layoffs associated with foreign imports and offshore outsourcing are a major cause of manufacturing's decline in Washington State.

A Snapshot of Washington State's Manufacturing Jobs Crisis

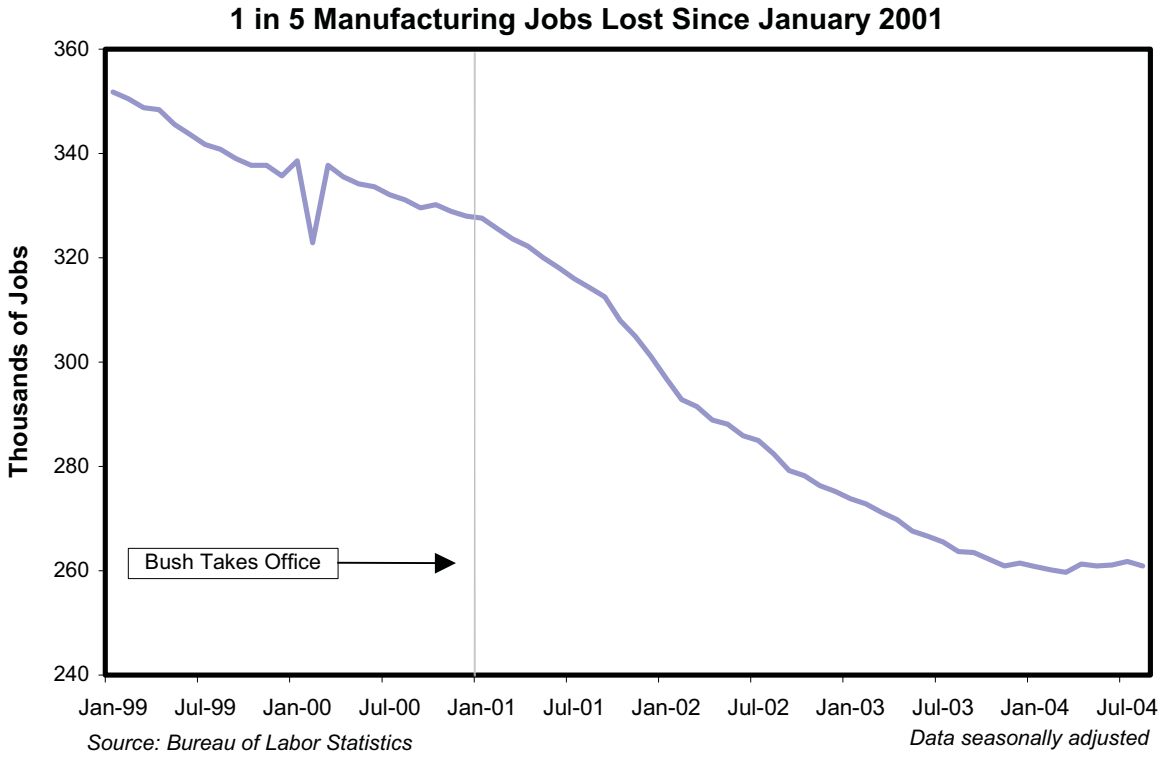
Since January 2001:

- Washington State has lost 66,700 manufacturing jobs.
- More than one in five of Washington's manufacturing jobs have disappeared.
- Washington's aerospace industry—mostly the Boeing Company—shed 25,000 jobs, or more than one-quarter of its workforce.
- Washington's computer and electronic products, primary metals (aluminum), food manufacturing, machinery manufacturing, wood products and paper manufacturing sectors also suffered large losses.
- The Seattle region lost 42,200 manufacturing jobs, while Tacoma and Spokane together lost most more than 7,000.
- At least 27,000 layoffs, more than 40 percent of the net total manufacturing jobs lost in the state, were trade-related, as determined by the AFL-CIO Industrial Union Council's Job Export Database Project.
- The Boeing Company accounted for more than 23,000 of these trade-related job losses; all of these have been linked to import competition.
- Of the 7,177 layoffs (not including Boeing's loss) examined in the report, nearly half were trade-related, with 2,619 layoffs associated with imports and the remainder with offshore production shifts.

The decline in manufacturing matters greatly to Washingtonians, in light of the critical role the sector plays in the state's economy. In 2001, manufacturing accounted for 12.3 percent of Washington's Gross State Product (GSP). Currently, manufacturing employment accounts for one of every seven private-sector jobs in the state.

Between January 2001 and August 2004, Washington lost nearly one of every five of its manufacturing jobs. Although it only ranked 21st in the nation in total *number* of manufacturing employment losses, it was 12th in the *share* of its manufacturing jobs lost. That is, Washington suffered proportionately greater losses in its manufacturing sector than three-fourths of the states. Over this period, the number of manufacturing jobs in the state fell from 327,000 to 260,900 (data seasonally adjusted), a loss of 67,700 jobs or 20.4 percent. This dramatic decline is illustrated in Figure 1.

Figure 1
Manufacturing Employment in Washington State, January 1999-August 2004



Manufacturing Losses Within Industry Sectors. All but one major manufacturing industry in the state has experienced job loss (see Table 1). The aerospace and parts industry—centering around the Boeing Company—is by far the largest manufacturing sector in terms of employment (more than one-fourth of all manufacturing jobs), and it suffered the largest losses (25,000, or 44 percent of total manufacturing jobs lost (non-seasonally adjusted data)) between January 2001 and August 2004. Ranking second in job losses is the computer and electronic products sector, which provides one in

10 of the state's manufacturing jobs. The sector lost 12,200 jobs, declining 35 percent below its January 2001 employment level. Primary metals manufacturing, a relatively smaller sector, was nevertheless hit disproportionately hard: Overall, the sector lost half its workforce, with the aluminum industry shedding nearly three-fourths of its jobs—in large part because of rising energy prices and the 2001 electricity crisis in the western states. Other important sectors producing durable goods—wood products and fabricated metal products—also had modest losses.

Although durable goods industries accounted for most manufacturing jobs in January 2001 and more than 90 percent of manufacturing losses since then, sectors producing non-durable goods also suffered significant losses. Food manufacturing, which accounted for more than 12 percent of all manufacturing jobs in January 2001, has lost nearly 10 percent of its workforce. Jobs in the state's paper manufacturing sector have declined 12.5 percent, and the printing and related support activities sector has shed a whopping 23.9 percent of its workforce.

Table 1
Manufacturing Employment in Washington State, By Industry Sector
January 2001 to July 2004

Industry Sector	Employment, January 2001	Employment Change	% Employment Change
Manufacturing (All)	**327,600**	**-66,700**	**-20.4%**
Durable Goods	*232,000*	*-51,500*	*-22.2%*
Wood Products	19,300	-1,500	-7.8%
Nonmetallic Mineral Products	8,700	300	3.4%
Primary Metals	10,100	-5,300	-52.5%
Alumina and Aluminum Production & Processing	*5,300*	*-3,800*	*-71.7%*
Fabricated Metal Products	18,700	-1,900	-10.2%
Machinery Manufacturing	15,300	-3,500	-22.9%
Computer and Electronic Product Manufacturing	35,200	-12,200	-34.7%
Electrical Equipment, Appliances and Components	4,200	-100	-2.4%
Transportation Equipment	99,100	-25,400	-25.6%
Aerospace Product and Parts	*86,900*	*-25,000*	*-28.8%*
Non-Durable Goods	*89,700*	*-5,000*	*-5.6%*
Food Manufacturing**	39,800	-3,538	-9.6%
Paper Manufacturing	14,400	-1,800	-12.5%
Petroleum & Coal Products, and Plastics & Rubber Products	12,000	-400	-3.3%
Printing and Related Support Activities	11,300	-2,700	-23.9%

Source: Bureau of Labor Statistics. The table uses seasonally adjusted data for "all" manufacturing and non-seasonally adjusted data for sub-sectors.. Industry sector categories are from the North American Industrial Classification System (NAICS).

*** Data are for August 2001-August 2004, to adjust for the much greater seasonal variability in this sector.*

Manufacturing Losses Within Major Metropolitan Areas. The state's three largest metropolitan areas—Seattle, Tacoma and Spokane—account for more than 70 percent of all manufacturing jobs and suffered nearly 90 percent of the state's manufacturing losses between January 2001 and August 2004 (see Table 2). Seattle is the elephant in the room, with almost 60 percent of all manufacturing jobs in the state and three-quarters of all manufacturing job losses—42,200, or more than one in five of its manufacturing jobs. Seattle and the Puget Sound region are home to most of the state's aerospace facilities (primarily Boeing facilities) and jobs, which accounted for the bulk of the losses in this region since January 2001.

Table 2
Manufacturing Employment in Washington State, Major Metropolitan Areas
January 2001 to July 2004*

Metropolitan Area	Employment, January 2001	Employment Change	% Employment Change
Seattle	187,300	-42,200	-22.5%
Spokane	21,500	-4,600	-21.4%
Tacoma	21,700	-2,500	-11.5%

* *Data not seasonally adjusted*
Source: Bureau of Labor Statistics

Measuring Job Exports in Washington State: The Role of Trade in Washington's Manufacturing Job Losses

To assess the extent to which manufacturing job losses are tied to trade and offshore production shifts, the AFL-CIO Industrial Union Council's Job Export Database Project ("the project") is conducting a detailed study of worker layoffs reported by states in response to requirements of the Worker Adjustment and Retraining Notification Act (WARN) and identified in Trade Adjustment Act (TAA) petitions and other data sources. Based on an analysis of these records for Washington, project researchers found that at least 41 manufacturing companies in the state have laid off workers since January 2001, and at least 27,196 Washington workers have lost their jobs for trade-related reasons.

The Job Export Database Project is the first comprehensive effort to systematically examine the causes of large-scale layoffs on a state-by-state basis. As such, it provides a useful tool for shedding light on how global forces are hurting state economies, especially states with large manufacturing sectors, such as Washington. However, the project almost certainly understates—perhaps substantially—the total number of trade-related layoffs. As described more fully in the methodology section, project researchers currently analyze only layoff events giving rise to WARN notifications. In Washington, these are limited to layoffs of more than 50 people at companies with more than 100

employees. The Job Export Database Project study does not include the large number of small manufacturing firms that do not meet the WARN threshold. Since the total layoffs and trade-related layoffs included in the project's database are only a subset of actual layoffs in Washington, the measure of trade-related layoffs reported in this study is not comprehensive. The study's findings should be viewed as providing only a sample of manufacturing layoffs—including those that are trade-related—in the state.

Washington State Job Exports: Preliminary Findings

For Washington State, the Job Export Database Project has identified 42 WARN-associated lay-off events in the three-and-a-half year period between January 2001 and May 2004. These events involve 41 manufacturing companies[1] located throughout the state. One-third of these manufacturing-related layoff events—a total of 14—can be attributed either to the effects of import competition or to U.S. companies shifting operations to offshore locations. Import competition was a primary cause of 10 manufacturing layoff events (involving 10 firms), while job exporting, the shift of U.S. production activity to offshore locations, was a primary causal factor in four events (involving four companies) (see Table 3).

Table 3
Aggregate Data for Manufacturing Sector Layoff Events
In Washington State
January 2001 to May 2004

Data Item	Totals	Cause of Layoff Events		
		Total Trade-Related	Import Competition	Production Shifts
Manufacturing Layoff Events	42	14	10	4
No. of Companies with Manufacturing Layoff Events	41	14	10	4
All Layoffs	30,991	27,196	26,443	753

[1] A layoff event refers to a layoff occurrence at a specific location for which a WARN notice was submitted by the company making the layoff. The number of companies is equal to or smaller than the number of events because a single company at a given location may have more than one layoff at different times for which they filed a WARN notice.

Overall, the 42 WARN-associated layoff events identified by project researchers resulted in 30,991 job layoffs in Washington's manufacturing sector. Nearly 90 percent of these—27,196 job layoffs—were trade-related. The trade-related layoffs include 26,443 resulting from imports and 753 due to job exporting.

One major employer, the Boeing Company, with several plants in the Puget Sound region and elsewhere around the state, accounted for more than three-quarters of the layoffs—and more than 90 percent of the trade-related layoffs—examined in this report. Excluding Boeing, the report identifies a total of 7,177 manufacturing job layoffs since January 2001; 3,382 of these, or 47 percent, were trade-related. More than three-fourths of the trade-related layoffs, 2,619 job cuts, are associated with import competition.

The Job Export Database Project sample represents a little less than one-half of Washington's net 66,700 manufacturing job losses between January 2001 and August 2004, as reported by the Bureau of Labor Statistics. Excluding the Boeing layoffs, the project's sample represents less than 18 percent of the state's net manufacturing losses.

Layoffs by Industry Sectors. Manufacturing layoffs giving rise to WARN notices were spread across most major manufacturing industry sectors in Washington State. Table 4 summarizes the number of layoffs in the top 12 manufacturing sectors ranked according to total layoffs,[2] which account for all manufacturing job layoffs identified in the study, and all manufacturing-related layoffs that have been identified as being trade-related. Similarly, Table 5 shows the numbers of companies associated with these layoffs within each major industry sector.

The manufacturing sectors in the project's report with the largest number of reported layoffs and the largest number of trade-related layoffs shown in Table 4 track well with the top manufacturing sectors in terms of employment losses in Washington shown in Table 1—transportation equipment, food manufacturing, computer and electronic product manufacturing, wood products and primary metals. The importance of trade-related impacts, the distribution of trade-related layoffs and the numbers of manufacturers associated with these layoffs varies across industry sectors, reflecting the differences in their structures and their positions in world markets.

For example, there were 744 reported job losses by three employers in the primary metal sectors—all aluminum processors—for which high electricity prices appeared to be the main reason for job cutbacks or plant closures. The 2001 California electricity crisis led to soaring electricity prices throughout the western states, prompting aluminum producers to shut down or reduce their operations throughout the region. Kaiser Aluminum reportedly shut down its smelters in Mead and Tacoma, and Alcoa Intalco Works'

[2] Because the WARN notices use the Standard Industry Classification (SIC) system to categorize the industry sectors the notifying firms belong to, industry sector data in the Job Export Database Project study are also reported according to the SIC categories. The BLS employment data that were the source of data in Table 1 are based on the newer North American Industrial Classification System (NAICS). The SIC-based categories used in the Job Export Database Project's WARN-based study do not track one-to-one with the NAICS-based categories. Nevertheless, the same industry segments in one set also are in the other, even though they may be grouped differently within the major sectors of each system.

aluminum smelter in Ferndale cut at least 525 workers, at least in part because of high electricity prices. Over the same period, however, aluminum companies nationwide suffered from soft sales and poor prices, reportedly due in part to China's expansion of its aluminum industry, which helped drive up the cost and diminish the supply of alumina.[3]

Table 4
Layoffs in Washington State, By Manufacturing Industry Sector, January 2001-May 2004

Industry Sector	Number of Layoffs by Layoff Cause			
	Total Layoffs	Total Trade-Related	Import Competition	Production Shifts
Transportation Equipment	24,593	23,814	23,814	0
Lumber & Wood Products	1,788	1,352	1,352	0
Food and Kindred Products	1,498	971	971	0
Electronic & Other Electrical Equipment & Components	1,090	580	0	580
Primary Metal Industries	744	0	0	0
Paper & Allied Products	416	416	306	110
Furniture & Fixtures	306	0	0	0
Printing, Publishing & Allied	176	0	0	0
Industrial & Commercial Machinery & Computer Equipment	163	0	0	0
Measuring, Analyzing, & Controlling Instruments and Others*	86	0	0	0
Chemicals & Allied Products	67	0	0	0
Rubber & Misc. Plastic Products	63	63	0	63

** Other industries include photographic, medical and optical goods, and watches and clocks.*

[3] "Ormet Continues With Plans to Emerge From Bankruptcy," *The State Journal*, June 17, 2004. China's expansion of its aluminum industry has been cited a factor in Ormet Primary Aluminum Corp.'s financial problems that resulted in layoffs at its Hannibal, Ohio plant. See also IUC Job Export Database Project, "Ohio Job Exports," AFL-CIO Industrial Union Council, Washington, D.C., Sept. 22, 2004.

On the other hand, the data indicate that competition from imports played a prominent role in layoffs in the transportation equipment, food processing, lumber and wood products and paper and allied products sectors. Similarly, overseas production shifts were reported as important factors in job losses occurring at companies in the electronic and other electrical equipment and components, paper and allied products and rubber and miscellaneous products sectors.

The Boeing Company. The job losses in Washington State's transportation manufacturing sector appearing in the BLS statistics and in the Job Export Database Project database can be attributed almost exclusively to the Seattle region's (and the state's) largest employer, the Boeing Company. The project reports the 23,814 layoffs identified in the WARN notices filed by the company between January 2001 and May 2004 as import competition-related.

Large-scale cutbacks by the Boeing Company's Commercial Airplanes division at its many plants located throughout the Puget Sound area began even before the period covered in this report. The Sept. 11, 2001, attacks exacerbated an existing slump in global air travel and almost certainly contributed to restructuring and massive job cuts by Boeing. However, the U.S. Department of Labor had determined in Trade Adjustment Act (TAA) certifications as far back as 1999 that import competition from Boeing's European-subsidized competitor, Airbus, has "contributed importantly" to the tens of thousands of jobs shed by Boeing over this period.

Boeing is a prime example of what has been happening to the aerospace sector as a whole, which has lost over 600,000 jobs in the past 15 years, with import competition and outsourcing as a major cause. Aside from the problems stemming from its ongoing competition with Airbus, Boeing's restructuring efforts include moving parts of its operations overseas. This is threatening not only the jobs of thousands of International Association of Machinists and Aerospace union members, but also threatens engineering jobs. For example, Boeing has set up a new 350-person research and development (R&D) center in Moscow, employing low-cost Russian aeronautical engineers while it shrinks its engineering staff in Seattle.[4] It has also been outsourcing parts of its aircraft production overseas, including aircraft parts work for its 737 jet in China and its handing over of composite and wing technologies to Japan and China. Boeing plans to outsource 70 percent of the work on its new 7E7; a large share is likely to go offshore.

Food Manufacturing. Nearly two-thirds of the almost 1,500 job losses reported in the food and kindred products manufacturing sector—971 jobs—were identified as import-related. Miller Brewing Company's closure of its Tumwater plant, with a loss of 375 jobs, was TAA certified because of the impact of import competition. Frozen foods producer Agrifrozen Foods in Grandview shed 368 jobs as the company cut back because of high electricity prices compounded by competition from China. This layoff was TAA certified because of import competition, though the company reportedly has closed many plants and moved some production to Mexico.

[4] Louis Uchitelle, "One piece is missing from U.S. job picture; Loss of employment to overseas markets: significant but hazy," *The New York Times,* Oct. 7, 2003, p.1.

Table 5
Numbers of Manufacturing Companies With Layoff Events In Washington State, by Layoff Causes and Industry Sector, January 2001–May 2004

Industry Sector	Total Layoffs	Numbers of Companies by Layoff Cause			
		All Companies	Total Trade-Related	Import Competition	Production Shifts
Transportation Equipment	24,593	4	1	1	0
Lumber & Wood Products	1,788	7	4	4	0
Food and Kindred Products	1,498	8	4	4	0
Electronic & Other Electrical Equipment & Components	1,090	6	2	0	2
Primary Metal Industries	744	3	0	0	0
Paper & Allied Products	416	2	2	1	1
Furniture & Fixtures	306	3	0	0	0
Printing, Publishing & Allied	176	3	0	0	0
Industrial & Commercial Machinery & Computer Equipment	163	2	0	0	0
Measuring, Analyzing, & Controlling Instruments and Others*	86	1	0	0	0
Chemicals & Allied Products	67	1	0	0	0
Rubber & Misc. Plastic Products	63	1	1	0	1

** Other industries include photographic, medical and optical goods, and watches and clocks.*

Apple juice producer Tree Top, in Selah, also received TAA certification for job cuts related to import competition. China has become a major new competitor in the apple and apple production markets. There is also evidence that the Dole Fresh Fruit Company, whose plant in East Wenatchee, cut 232 jobs, while not listed in the report as import-

related, has reportedly been shutting plants and laying off workers partly because of rising Chinese exports to U.S. markets.[5]

Lumber, Paper and Pulp. Import competition was a major factor in job cuts by several large employers in the lumber and wood products and the paper and pulp sectors, accounting for three-fourths of the total layoffs in these sectors. Weyerhaeuser, with plants in both the lumber and paper industries in several Washington State locations, had 1,466 job cuts that have been identified as import-related. Other companies in these sectors with job losses tied to import competition include Ross-Simmons Hardwood Lumber in Longview and Vaagan Bros. Lumber in Republic.

Electronic Components Manufacturing. Production shifts offshore accounted for more than half the reported layoffs in this sector. Examples include electronics manufacturer AVX Corp., which closed its plant in Vancouver, cutting 350 jobs, and moved its operations to Mexico. In December 2001, Matsushita Kotobuki Electronics Industries of America laid off 202 workers at its Vancouver facility, about 44 percent of its workforce, moving at least half of its operations to Indonesia. At the same time, in an event not covered in the Job Export Database Project's report, silicon wafer fabricator SEH announced its plans to send work to a plant in Malaysia, eliminating 350 jobs in Vancouver.[6]

Conclusion

Between January 2001 and May 2004, nearly 90 percent of the WARN-associated layoffs by Washington State manufacturers—27,196 job cuts involving 14 firms—were trade-related. The Boeing Company alone accounted for the lion's share of these layoffs, 23,814 job cuts in all, but nearly half of the non-Boeing layoffs—3,382 of 7,177 cuts—were due to trade. No industry was spared: Lumber and wood products, paper and allied products, electronics, and food manufacturing industries all took big trade-related hits.

The trade-related layoffs uncovered by the Job Export Database Project's analysis, while substantial, are just the tip of the iceberg. Other data sources and extensive anecdotal evidence reveal that many small business layoffs and small-scale layoffs by larger employers are also trade-related. Even though the project's findings are only a sample of trade-related manufacturing job cuts, they provide strong empirical evidence that, contrary to claims by many economists and advocates of unfettered trade, competition from imports and the exporting of U.S. jobs are significant causes for the dramatic drop in manufacturing employment in Washington and across the United States. These findings are a powerful wake-up call for policymakers that we must take quick and effective steps to reform our trade policies if we are to maintain competitiveness for America's businesses while also creating and keeping good jobs at home for America's working families.

[5] "Growers sue Dole for more than $30 million," The Associated Press, July 13, 2003.
[6] "Saving energy is sale focus," *Statesman Journal* (Salem, Ore.), Dec. 1, 2001, p.8B.

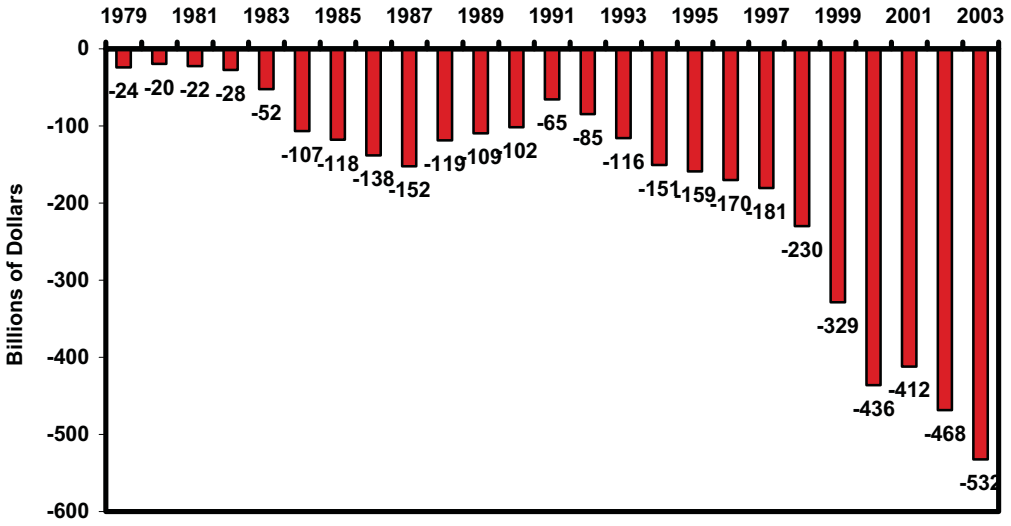
Background

The Crisis in American Manufacturing

The crisis in American manufacturing continues. Despite recovery in some sectors of the economy, manufacturing employment remains at its lowest level since 1950. American manufacturing suffered 42 consecutive months of job losses between August 2000 and January 2004—and nearly 2.7 million manufacturing jobs have been shed since January 2001. The manufacturing crisis has hurt regional, state and local economies across the nation.

Simultaneously with the decline in domestic manufacturing, the U.S. trade deficit in goods grew to a record-breaking $532 billion in 2003, an unprecedented 5 percent of U.S. Gross Domestic Product (see Figure 1). The goods deficit with China hit $124 billion in 2003, up 20 percent over the previous year, also a record (see Figure 2). The growth in the trade deficit represents jobs and job opportunities lost because of shrinking export markets, as well as jobs displaced due to import competition or production shifts offshore.

Figure 1
U.S. Merchandise Trade Deficit, 1979-2003 (Census Basis)



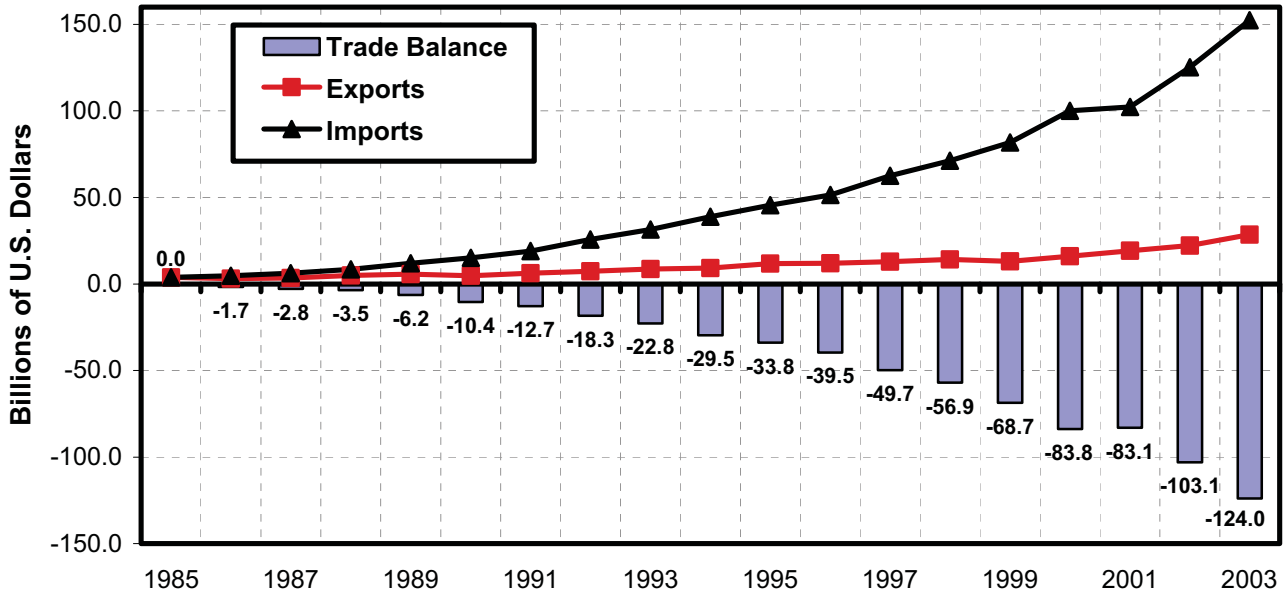
Data Source: U.S. Census Bureau

Some economists attempt to blame the job decline on productivity growth and the normal business cycle. They discount or ignore growing evidence that the real roots of the problem lie in the massive, steady exporting of U.S. manufacturing jobs to low-cost offshore labor markets, and the "low-road" business practices that drive this movement.

To shed light on how America's manufacturing decline is linked to this movement of jobs offshore, the AFL-CIO Industrial Union Council (IUC) initiated an ongoing, intensive

research effort, the Job Export Database Project. This project is a crucial tool in helping identify the causes of manufacturing job loss, especially jobs lost to imports and offshore production.

Figure 2
U.S. Annual Trade With China



Source: U.S. Census Bureau

Table A1
Manufacturing Companies in Washington State With Layoffs
January 2001-May 2004

Company Name	Location	Parent	Primary SIC	Total Layoffs
BOEING COMMERCIAL AIRPLANES	RENTON	BOEING COMPANY	37	23814
WEYERHAEUSER COMPANY	FEDERAL WAY	WEYERHAEUSER COMPANY	24	750
INTALCO ALUMINUM CORPORATION	FERNDALE	ALCOA INC	33	525
TODD PACIFIC SHIPYARDS	SEATTLE	TODD SHIPYARDS CORPORATION	37	500
WEYERHAEUSER COMPANY	SNOQUALMIE	WEYERHAEUSER COMPANY	24	410
MILLER BREWING COMPANY	TUMWATER	MILLER BREWING COMPANY	20	375
AGRIFROZEN FOODS	GRANDVIEW	PRO-FAC COOPERATIVE INC	20	368
AVX VANCOUVER CORP	VANCOUVER	AVX CORPORATION	36	350
WEYERHAEUSER COMPANY	LONGVIEW	WEYERHAEUSER COMPANY	26	306
DOLE FRESH FRUIT CO.	EAST WENATCHEE	DOLE FOOD COMPANY INC.	20	232
MATSUSHITA KOTOBUKI ELECTRONIC	VANCOUVER	MATSUSHITA KOTOBUKI ELECTRONIC	36	230
DMC STRATEX NETWORKS NW INC.	SEATTLE	STRATEX NETWORKS INC.	36	229
SUMMIT TIMBER CO.	DARRINGTON	SUMMIT TIMBER CO.	24	200
HAWORTH INC.	KENT	HAWORTH INTERNATIONAL LTD.	25	189
HI-COUNTRY FOODS CORPORATION	SELAH	HI-COUNTRY FOODS CORPORATION	20	172
DERBY CYCLE CORP.	KENT	DERBY CYCLE CORP.	37	152
TTM TECHNOLOGIES INC	BURLINGTON	TTM TECHNOLOGIES INC.	36	139
BAYLINER MARINE CORPORATION	SPOKANE VALLEY	BRUNSWICK CORPORATION	37	127
LOUISIANA-PACIFIC CORPORATION	TACOMA	LOUISIANA-PACIFIC CORPORATION	24	120
KAISER ALUMINUM & CHEM CORP	MEAD	MAXXAM INC	33	119
WARDS COVE PACKING COMPANY	SEATTLE	WARDS COVE PACKING COMPANY	20	118

Table A1 (continued)
Manufacturing Companies in Washington State With Layoffs
January 2001-May 2004

Company Name	Location	Parent	Primary SIC	Total Layoffs
JELD - WEN INC.	WHITE SWAN	JELD - WEN INC.	24	116
TREE TOP INC.	SELAH	TREE TOP INC.	20	110
PORT TOWNSEND PAPER CORP.	PORT TOWNSEND	NORTHWEST CAPITAL APPRECIATION	26	110
ROSS-SIMMONS HARDWOOD LBR. CO.	LONGVIEW	ROSS-SIMMONS HARDWOOD LBR. CO.	24	105
GOLDENDALE ALUMINUM COMPANY	GOLDENDALE	GOLDEN NORTHWEST ALUMINUM INC.	33	100
ALCATEL INTERNETWORKING (PE)	SPOKANE VALLEY	ALCATEL USA INC.	35	100
VAAGEN BROS LUMBER INC.	REPUBLIC	VAAGEN BROS LUMBER INC.	24	87
SPACELABS MEDICAL INC.	REDMOND	SPACELABS MEDICAL INC.	38	86
APPLIED MICROSYSTEMS CORP.	REDMOND	APPLIED MICROSYSTEMS CORP.	36	82
TARGETED GENETICS CORPORATION	SEATTLE	TARGETED GENETICS CORPORATION	28	67
SIMON MATTRESS MFG. CO.	PUYALLUP	SIMON MATTRESS MFG. CO.	25	65
CHEMITHON CORPORATION	SEATTLE	CHEMITHON ENTERPRISES INC.	35	63
PETER PAN SEAFOODS INC.	SEATTLE	PETER PAN SEAFOODS INC.	20	63
UNITED ADVG. PUBLICATIONS	KENT	UNITED ADVG. PUBLICATIONS	27	63
TRIQUEST PUGET PLASTICS LLC	VANCOUVER	TRIQUEST PUGET PLASTICS LLC	30	63
ETMA CORPORATION	REDMOND	THREE-FIVE SYSTEMS INC.	36	60
TRIDENT SEAFOODS CORPORATION	BELLINGHAM	TRIDENT SEAFOODS CORPORATION	20	60
MC GRAW-HILL COMPANIES INC.	BOTHELL	MC GRAW-HILL COMPANIES INC.	27	59
NORTHWEST MEDIA WASHINGTON LP	BELLEVUE	NORTHWEST MEDIA WASHINGTON LP	27	55
SELKIRK INDUSTRIES LLC	LYNNWOOD	SELKIRK INDUSTRIES LLC	25	52

Table A2
Manufacturing Companies in Washington State With Layoffs From Import Competition, January 2001-May 2004

Company Name	Location	Parent	Primary SIC	Total Layoffs
BOEING COMMERCIAL AIRPLANES	RENTON	BOEING COMPANY	82	23814
MILLER BREWING COMPANY	TUMWATER	MILLER BREWING COMPANY	20	375
AGRIFROZEN FOODS	GRANDVIEW	PRO-FAC COOPERATIVE INC.	20	368
WEYERHAEUSER COMPANY	FEDERAL WAY	WEYERHAEUSER COMPANY	24	750
WEYERHAEUSER COMPANY	SNOQUALMIE	WEYERHAEUSER COMPANY	24	410
WEYERHAEUSER COMPANY	LONGVIEW	WEYERHAEUSER COMPANY	26	306
WARDS COVE PACKING COMPANY	SEATTLE	WARDS COVE PACKING COMPANY	20	118
TREE TOP INC.	SELAH	TREE TOP INC.	20	110
ROSS-SIMMONS HARDWOOD LBR. CO.	LONGVIEW	ROSS-SIMMONS HARDWOOD LBR. CO.	24	105
VAAGEN BROS LUMBER INC.	REPUBLIC	VAAGEN BROS LUMBER INC.	24	87

Table A3
Manufacturing Companies in Washington State With Layoffs From Offshore Production Shifts, January 2001-May 2004

Company Name	Location	Parent	Primary SIC	Total Layoffs
AVX VANCOUVER CORP	VANCOUVER	AVX CORPORATION	36	350
MATSUSHITA KOTOBUKI ELECTRONIC	VANCOUVER	MATSUSHITA KOTOBUKI ELECTRONIC	36	230
PORT TOWNSEND PAPER CORP	PORT TOWNSEND	NORTHWEST CAPITAL APPRECIATION	26	110
TRIQUEST PUGET PLASTICS LLC	VANCOUVER	TRIQUEST PUGET PLASTICS LLC	30	63

Methodology

The IUC's Job Export Database was constructed using the Worker Adjustment and Retraining Notification (WARN) notices filed in every state on an ongoing basis, which provide extensive, but not exhaustive, listings of layoff events. The WARN Act (*29 USC º2101 et seq.; 20 CFR 639*) requires employers of 100 or more employees to provide notification 60 calendar days in advance of plant closings and mass layoffs. A covered plant closing occurs when a facility or operating unit is shut down for more than six months, or when 50 or more employees lose their jobs during any 30-day period at the single site of employment. A covered mass layoff occurs when a layoff of six months or longer affects 500 or more workers, or 33 percent or more of the employer's workforce when the layoffs affect between 50 and 499 workers. The number of affected workers reported in WARN notices, and compiled in the Job Export Database Project database, is the total number laid off during a 30-day, or in some cases a 90-day period.

Because of the limitations of the WARN criteria, the project database, though perhaps the most comprehensive of its kind to date, could not capture every relevant layoff that has occurred (i.e., caused by trade or a production shift).,It does not include a very large number of smaller firms that have suffered loss of business and jobs over the past four years, or larger firms that made smaller layoffs not subject to WARN requirements. Since small manufacturers account for a sizable share of the overall manufacturing workforce, the database will tend to *understate* the number of layoffs in the state for the period covered.

Although WARN notices provide some of the most reliable data in locating layoff events, their quality and breadth varies by state, and no state lists the causes of the layoffs. For greater information and causal details, the project compiled records from the U.S.-China Security Review Commission (USCC)[7], Trade Adjustment Assistance (TAA) petitions (both certified and denied)[8], foreign investment information[9] and the AFL-CIO's internal Sept. 11, 2001, database[10]—and indexed the sources by Dunn and Bradstreet (D&B) company numbers. With the aid of the D&B numbers, project researchers matched the WARN layoff events with records in the other compiled data sources. If analysis of these linked data records failed to ascertain the cause of a layoff event, project researchers undertook a news-based (Lexis-Nexis or Web-based) search to shed further light on the reasons for the event's occurrence.

Some degree of uncertainty about causation remains for a number of layoff events included in the database due to inherent uncertainties in the references employed. To the extent made possible by the varied sources of information employed, project researchers made a determination of the causes of the layoffs, and indicated their degree of confidence in their assessments of whether an

---

[7] These data were provided by Dr. Kate Bronfenbrenner, School of Industrial Labor Relations, Cornell University, and were compiled for a study conducted by Dr. Bronfenbrenner et al for the U.S.-China Security Review Commission/U.S. Trade Deficit Review Commission: "Impact of U.S.-China Trade Relations on Workers, Wages, and Employment, Pilot Study Report," June 30, 2001.

[8] These are both approved and denied applications for Trade Adjustment Assistance. TAA application data are submitted to the U.S. Department of Labor. The department's TAA information is available online, but excludes the number of affected workers. This information, including the numbers of employees affected, was obtained from the Labor Department by Public Citizen and by the Food and Allied Service Trades Department, AFL-CIO, through Freedom of Information Act requests, and subsequently made available to the project.

[9] Foreign investment records are primarily investment data from the *China Business Review.* Hence, we only can identify company investments in China at this time.

[10] This is a list of all layoff events that took place in the year following the Sept. 11, 2001, attacks.

event was primarily trade-related, whether tied to import competition, production shifts offshore or other non-trade-related factors.

In addition, other data problems with a small subset of WARN-reported layoff events prevented their inclusion in the database. For Washington State, data problems prevented inclusion of a number of records of WARN-identified layoff events. Moreover, because many small layoff events receive only limited media coverage, there often simply is not adequate information, especially about circumstances surrounding firms' layoff decisions, to enable reliable determinations of their cause. New events will be added to the database as these problems are resolved.

In light of the caveats and limitations of the data sources, the numbers generated by this study are *conservative* measures of job losses in the state, and especially of the events that have been determined to be trade-related.