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TRADE POLICY: FORGING A NEW CONSENSUS
A SERIES OF DISCUSSION PAPERS

**IMPORTS, EXPORTS, AND
AMERICAN JOBS:**
UNDERSTANDING THE LINKS AND WHAT
THEY MEAN FOR U.S. WORKERS



About the Paper

This is one of a series of papers addressing U.S. trade policy from a political perspective.

It became evident during the 1990s that what once was a broad national consensus supporting U.S. efforts to liberalize world trade had eroded. In its place, an increasingly contentious and, to an extent, increasingly partisan debate emerged.

These papers look at this significant change, explore some of the factors associated with it, and consider policy implications for the future. The views expressed are solely those of the authors.

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*Dr. Kletzer's publications appear in a number of professional journals, including *American Economic Review*, *Journal of Economic Perspectives*, and *Industrial Relations*. She is the author of two recently published books: *Job Loss from Imports: Measuring the Costs*, a study of the costs to workers of trade-related job loss, published by the Institute for International Economics in 2001, and *Imports, Exports, and Jobs: What does trade mean for employment and job loss?*, an industry-level study of the link between trade and employment and job loss for the U.S. manufacturing sector, published by the W.E. Upjohn Institute for Employment Research in 2002.*

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Imports, Exports, and American Jobs:

Understanding the Links and What They Mean for U.S. Workers

By Lori Kletzer

Increasing economic integration across countries (the cross-border flows of goods, services, people and capital that is commonly understood to be “globalization”) produces large gains, particularly when viewed from the perspective of the aggregate economy. Productivity is enhanced when goods and services are produced in countries with comparative advantage and then traded. Consumers realize lower prices, with an improvement in welfare. Global competition helps restrain price inflation and it spurs innovation. In turn, innovation spurs globalization. These gains are widespread, and widely touted, although not always well understood.

Globalization has its costs too. Where the benefits are widespread, the costs tend to be concentrated. Producers in import-competing industries can see profits fall and their businesses threatened by lower-cost competition. Workers in import-competing industries lose jobs and/or face downward wage pressure. Other workers fear job loss from the heightened global competitive pressure and the perceived ease with which firms can relocate production. In the U.S., a number of public opinion surveys reveal that Americans are aware of both the pluses and minuses of continued globalization (see Scheve and Slaughter, 2001).

The highly visible nature of job loss weakens popular support for the view that economic integration brings widespread global benefits. Much of the success of the “globalization backlash” can be traced to concerns about the costly dislocations that occur as economies change in response to freer trade.

Productivity is enhanced when goods and services are produced in countries with comparative advantage and then traded... [but] Economy-wide, freer trade is only generally welfare-enhancing if the winners compensate the losers.

One of the most prominent themes in this backlash is the claim that “trade costs jobs,” with the accompanying debate over the number of jobs affected by free trade.¹ Economic theory argues that there are always likely to be net benefits from free trade, but it does not suggest that everyone benefits. Positive economy-wide benefits result from the gains of the winners exceeding the losses

of the losers.

Economy-wide, freer trade is only generally welfare-enhancing if the winners compensate the losers through a transfer of resources by policy. Balanced advocacy of free trade requires full recognition that economy-wide positive net benefits do not preclude localized negative net benefits.

Although the level of employment in the U.S. economy is determined far more by macroeconomic events and policy than by changes in trade policy, it is important to the policy debate to understand the links between U.S. jobs and job loss and increasing trade flows. This essay summarizes the author's recently published research, which seeks to bring a better understanding of the labor market impacts of global trade into the national policy-making debate. Only by understanding and addressing these impacts can the nation equitably move forward on the path of international economic integration.

The research summarized here reveals that there is a set of industries facing sustained import competition -- those with both high levels of import share and increasing import share -- where the rate of job loss is high. Beyond this subset of industries, the rising import share-high rate of job loss relationship is considerably weaker.

This means that increasing imports play a small role in aggregate economy job loss, but a larger role in traditional import-competing industries. In all, this research finds a narrow, but significant, band of workers for whom import-competing job loss is of large magnitude. For other workers, costs realized as job loss are smaller.

On the other side of the merchandise trade coin, a rise in exports is systemically associated with a lower risk of job loss. Understanding this

range of outcomes should assist policymakers in targeting assistance to address the real costs of import-competing job loss.

MANUFACTURING IN THE U.S., 1975-2000

A key goal of the research summarized here was an examination of the claim that increasing trade is associated with employment decline and job loss in the U.S. manufacturing sector.²

Due to data constraints, the changes in manufacturing employment and job loss specifically considered were those that took place during a 16-year period, 1979-1994.³ As it happens, that time period was a very difficult one for manufacturing in the United States. The sector as a whole was rocked by two recessions, a deep one in the early 1980s and another, not so deep, in the early 1990s. Productivity growth was sluggish, and U.S. consumer demand continued to shift away from manufactured goods and toward services. Even though net U.S. employment grew significantly, manufacturing employment declined steadily, by nearly 13 percent. As a result, manufacturing's share of employment declined to 16 percent, a 31.2 percent decline from its 1979 share. There was widespread involuntary job loss, with manufacturing accounting for 35.5 percent of total permanent job loss (10.2 million workers).

Manufacturing sector employment, from 1975 through 2000, is shown in Figure 1. Sectoral employment peaked in 1979, at 21 million workers. Employment declined through the trough of the 1981-82 recession, rose during the recovery and growth years of the late 1980s, declined again during the early 1990s recession, and grew slowly in the "no-jobs" recovery of 1992-95. The strong economy from 1995 to 2000 helped steady the level of manufacturing employment, but employment in the sector dropped sharply again over 2000-2002. It is clear

that, in the short-term, employment in this sector is highly dependent on the ups and downs of the business cycle, but also that the longer-term level has declined progressively since the late 1970s. As a share of total economy-wide employment (also shown in Figure 1), manufacturing has shrunk in importance over the past 20-odd years, from a 23.4 percent share of total employment in 1979 to 16 percent in 1994 and to 12.8 percent in 2002.

Over this same period, trade flows have increased considerably in manufacturing. Import share rose for the sector overall, from imports accounting for an average of 6.6 percent of domestic supply in 1975 to a 17.1 percent average in 1994 (an increase of 159 percent). Using a standard definition of “high” import competition, we find that a small group of industries, with few surprises, together accounted for about 38 percent of job displacement: Apparel, Footwear, Leather Products, Toys and Sporting Goods, Electrical Machinery, (parts of) Steel, Motor Vehicles, and Textiles. See Table 1, p. 4 for a listing of “high” import-competing

industries.

Sharply declining exports are strongly associated with employment decline, particularly in the industries accounting for the bulk of the employment loss.

By 1994, U.S. firms were exporting about 12.5 percent of manufacturing shipments to foreign markets, averaged across the industries in the sample. This level represents a 50 percent increase from 1975. This increase, while sizeable, is obviously considerably smaller than the 159 percent increase in import share over the same time period.

At the highly aggregate sectoral level discussed here, two trends emerge that may influence American perceptions of trade: the declining level of employment in manufacturing

Figure 1
Manufacturing Sector Employment and
Manufacturing Employment as a Share of Total Employment, 1975 - 2002

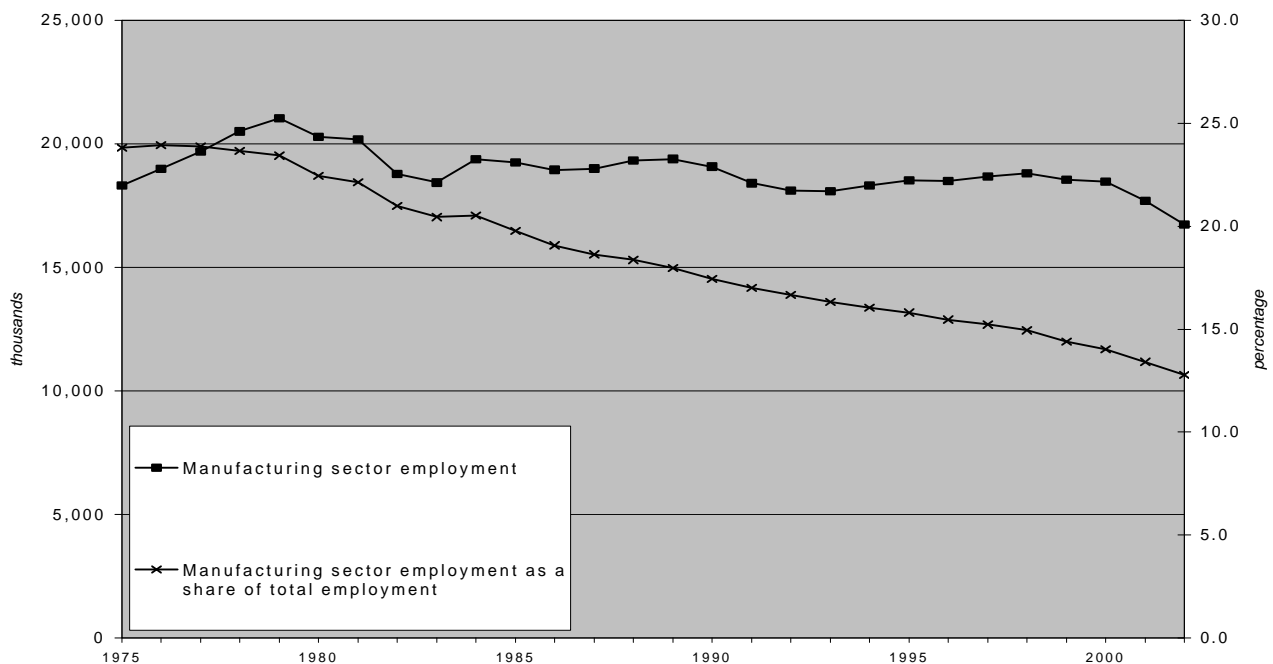


Table 1
High Import Competing Industries and Job Displacement

	Total displaced 1979-99	Share of total mfg. displaced	Mean job loss rate	Change in import share		
				1979-94	1979-85	1985-94
High Import-Competing						
Electrical machinery, I	1,576,095					
<i>Electrical machinery</i>	1,180,706	0.0703	0.0402	0.2063	0.0712	0.1351
<i>Radio, TV</i>	395,389	0.0235	0.1052	0.147	0.0458	0.1012
Apparel, I						
<i>Apparel</i>	1,135,668	0.0676	0.0562	0.2497	0.1034	0.1464
Transportation Equipment, I	985,760					
<i>Motor vehicles</i>	918,066	0.0546	0.0431	0.1012	0.0857	0.0156
<i>Cycles & misc. transport</i>	67,694	0.0040	0.0838	-0.0631	-0.0221	-0.041
Machinery, except electrical, I	905,514					
<i>Electronic computing eqp</i>	513,988	0.0306	0.0454	0.384	0.086	0.298
<i>Construction & material moving machines</i>	350,900	0.0209	0.0526	0.1771	0.0905	0.0866
<i>Office & accounting machines</i>	40,626	0.0024	0.0297	0.3715	0.0827	0.2888
Metal industries, I	494,660					
<i>Blast furnaces</i>	361,428	0.0215	0.0531	0.0709	0.0739	-0.003
<i>Other primary metal</i>	133,232	0.0079	0.0719	0.0024	0.0222	-0.0198
Misc. manuf industries	335,091	0.0199	0.0505	0.1902	0.1099	0.0803
Leather & Leather products	246,451					
<i>Footwear</i>	184,417	0.0110	0.0871	0.3587	0.2192	0.1395
<i>Leather products</i>	57,337	0.0034	0.1217	0.3906	0.195	0.1957
<i>Leather tanning & finish</i>	4,697	0.0003	0.074	0.1173	0.0725	0.0448
Professional & photographic eqpt.	240,200					
<i>Scientific & controlling instruments</i>	163,503	0.0097	0.0278	0.154	0.0424	0.1116
<i>Photographic eqp</i>	67,754	0.0040	0.0321	0.1396	0.0519	0.0877
<i>Watches, clocks</i>	8,943	0.0005	0.0913	0.4129	0.2261	0.1868
Rubber & Misc. plastics	192,960					
<i>Other rubber products</i>	113,144	0.0067	0.0437	0.1567	-0.0125	0.1692
<i>Tires & inner tubes</i>	79,816	0.0048	0.0452	0.096	0.038	0.058
Textiles, I	159,177					
<i>Knitting mills</i>	137,725	0.0082	0.0342	0.1585	0.0973	0.0612
<i>Misc. textile</i>	21,452	0.0013	0.0449	0.0146	0.0142	0.0005
Toys & sporting goods	155,970	0.0093	0.0597	0.2781	0.148	0.1301
Pottery & related	26,471	0.0016	0.0733	0.1326	0.1054	0.0271
Totals/Means	6,454,017	0.3842	0.0594	0.1846	0.0846	0.1000

Taken from Kletzer (2001), table 2.1.

Author's calculations from the NBER Trade Database and the Displaced Workers Surveys, 1984-2000.

High import-competing industries are defined as those ranking in the top 25 percent in import share changes during the period 1979-94. For details, see Kletzer (2001).

and increased volumes of merchandise trade.

Although both trends are real, it is a mistake to simply link trade to the number of jobs in the sector as a whole. Trade reallocates jobs according to shifting patterns of comparative advantage. We can expect trade to influence the distribution of jobs and employment, at least over the long run. To understand the impact of these distributional changes, we need to look within manufacturing at different industries, where patterns of employment decline, and job loss, and employment expansion are best revealed.⁴ and increased volumes of merchandise trade.

MANUFACTURING, FROM THE INDUSTRY LEVEL

When the trends in employment, job loss, and trade flows are brought together at a more detailed industry level, some basic patterns emerge. First, there is an association between employment decline, import share gain, export loss and weak domestic demand for the handful of small industries that are traditionally import-competing (apparel, footwear, leather products, watches and clocks). Sharply declining exports are strongly associated with employment decline, particularly in the industries accounting for the bulk of the employment loss. Rising imports are also strongly associated with employment decline, but more so in the smaller traditional import-competing industries. Apparel, a traditionally import-competing industry, was the biggest employer in the set of top 10 industries for import share gain and export decline. The iron and steel industries appear hard hit by the combination of rising import share and declining exports, as well as large employment losses.

How much employment decline was associated with the rise in import share and/or the decline in exports? Due mostly to employment scale, industries with the largest increases in import share (industries we might call the most

import competing) accounted for a small share of total sectoral employment decline. Of the top import share gainers (and export losers, with solid domestic demand), apparel accounted for the largest share of employment declines, at 7 percent for 1979-85 and almost 12 percent for 1985-94. Apparel accounted for five percent of employment over the period. With apparel at number 8 in rising import share, the top 10 import share gainers accounted for 21 percent of employment decline, where they started with 12 percent of 1979 employment. Also starting from about 12 percent of 1979 sectoral employment, the top 10 in export decline accounted for about 25 percent of employment loss.⁵

A further aspect of the analysis is the focus on job displacement (permanent job loss). Industry net employment changes are a result of changes in the gross flows of new hires, recalls, quits, displacements, temporary layoffs, and retirements. In other words, industry employment declines, on net, if additions to employment (new hires + recalls) are less than separations from employment (quits + displacements + temporary layoffs + retirements).

Job displacement is the involuntary (from the worker's perspective) termination of employment based on the employer's operating decisions. The amount of social and private adjustment to global free trade depends importantly on gross employment changes, not net, but it is the job displacement component of employment change that most concerns workers and the general public.

As might be expected, the evidence shows, with a few exceptions, that all industries with above-average rates of permanent job loss have above-average declines in employment. Industries with employment growth tend to have lower job loss rates. The large employment industries, all with sizeable increases in import share, all had fairly large employment declines and

job loss rates at or higher than the sectoral average. The strongest relationship between employment change and the risk of job displacement is found amongst the set of small (in employment) traditionally import-competing industries, such as leather tanning and finishing, watches and clocks, and leather products.

...the combination of “trade with job loss” appears to arise from continued, sustained import competition.

For the most part, high job loss rate industries were both high import share and experienced a large (positive) change in import share (increasing import competition). Restated, the combination of “trade with job loss” appears to arise from continued, sustained import competition. Industries with lower import share and large positive changes in import share have lower rates of job loss (metalworking machinery, aircraft, and knitting mills), while industries with high import share and average or smaller changes in import share also have average or lower rates of job loss (motor vehicles, engines and turbines).

These findings are largely descriptive. They were extended with the estimation of an econometric model that allowed for the inclusion of other factors in the determination of employment change and job loss. From that more statistically detailed model, five main findings emerged:

- *Increasing imports are associated with employment reductions.* Increasing foreign competition, measured as a decline in relative import price, is associated with a decline in employment. The sensitivity of employment and job loss to fluctuations in import price and import share confirms and extends the earlier work of other researchers. On average, the estimated associations between rising import share and job loss and employment reductions are relatively small. The relatively small magnitude of these average estimated associations is consistent with the consensus of the “trade and wages” literature that trade plays a smaller role than technological change in accounting for rising wage inequality.
- *Increasing exports and domestic demand enhance employment.* Within industries, the employment-enhancing effect of expanding exports is significantly greater than the employment-reducing effects of increasing imports. This result was found to be stronger in some specifications than in others and there are measurement issues that I address in my 2002 Upjohn book.
- *With respect to job displacement, there is a set of industries facing sustained import competition, those with both high levels of import share and increasing import share, where the rate of job loss is high.* Beyond this subset of industries, the rising import share-high rate of job loss relationship is considerably weaker. This means that increasing imports play a small role in aggregate economy job loss, but a larger role in traditional import-competing industries. Within a given industry, there is also evidence that more competitively priced imports (falling relative import prices) are associated with job loss. Bringing together the employment change evidence with the job loss evidence, as relative import prices fall, consumers substitute foreign-produced goods for domestic, domestic demand falls, import share rises, and employment falls as output is scaled back. The employment reduction occurs, in part, through displacement.
- *The steady focus on import competition and its potential role in job loss has caused the export side to be overlooked.* Just as

export growth is associated with employment growth, it is also a counterforce against permanent job loss. As sales increase due to exports, the risk of job loss falls. Restated slightly, an open economy involves more exports along with more imports, and job gains from increasing exports offset job loss associated with imports.

- Although some jobs are lost when imports rise while others are maintained or created when exports rise, *the trend in manufacturing employment from the late 1970s to the early 1990s cannot be explained primarily or even significantly by changes in trade flows or foreign competition.* Technological change, changes in the composition of consumer demand, corporate restructuring, , all have played and continue to play a role in declining manufacturing employment. At the same time, while increasing imports play a small role in sectoral job loss, they play a much larger role in traditional import-competing industries. These industries include: Apparel, Textiles, Footwear, Electrical Machinery, some of the Metals industries, Motor Vehicles. In these industries, the implied burden of worker adjustment is dramatic.

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It is worth pausing a moment to focus on the role of exports. Allowing that the export association observed is an estimate, the greater responsiveness of employment to changes in exports over changes in import share is an interesting, if subtle, finding. In this data set, exports represent goods actually produced by U.S. workers. Thus, a fall in exports is a reduction in demand that can be expected to

result in a fall in employment. Imports, on the other hand, are not as closely tied to jobs for U.S. workers. Imports are goods made by foreign workers, and they may not be goods that exactly duplicate goods made by U.S. workers. For imports to displace U.S.-made goods, there must be some substitutability between foreign and domestic goods. Certainly within the level of aggregation of this data set, it seems possible that imports could represent different goods than the goods produced domestically, with little substitution.⁶ For example, imports of expensive watches may not result in lower employment for U.S. watch workers if those imported watches are not substitutable for the more moderately priced watches made in the U.S. Similarly for import share in this case: as U.S. incomes rise, demand for expensive watches may rise, and with expensive watches made almost exclusively outside the U.S., the import share of watches will rise, while demand for U.S. watches remains virtually unchanged. In this case, buyers (or owners) of expensive watches usually own more than one watch. The decision to buy an expensive (imported) watch will not mean a substitution away from a lower-price watch; rather an addition to the consumption bundle. So, while we can be certain that exports are produced by U.S. workers, we cannot be certain that an industry import directly substitutes for a domestic good.

One last note on this point: The statistical model allows us to consider an interesting counterfactual question: What would the level of employment in manufacturing likely have been at the end of the period examined had manufacturing imports and exports remained at their 1979 levels. This question can be answered by simulating a path of employment using estimates from the statistical analysis, along with historical data for all the independent variables with the exception of exports and imports.⁷

For the average manufacturing industry, employment fell by 13.4 percent from 1979 to

1994. Averaged across industries, the full historical model generated a predicted employment decline of 17.9 percent. With import share frozen at its 1979 level, average industry employment would have declined by 8.8 percent. For an average industry (employing 254,000 workers), this 4.6 percent difference due to the increase in imports represents some 11,700 jobs.

On the other hand, if exports had been frozen at their 1979 level, the model indicates employment would have fallen by 19 percent, 5.6 percent more than observed. Thus the growth in exports “saved” an average some 14,200 jobs in an average manufacturing industry. Together, if both imports and exports had been frozen at 1979 levels, this analysis indicates employment would have declined by 16.4 percent, or 3 percent more than observed (7,625 jobs).

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The “average” manufacturing industry is a somewhat artificial construct. As such, it disguises the wide variation in the simulated employment changes across industries. In a handful of industries, there would have been less employment in 1994 than was actually observed, had trade been neutral from 1979 to 1994. In most industries however, there would have been more employment with neutral imports and less employment with neutral exports. In Footwear for example,

Holding imports at their 1979 levels would have “saved” roughly 27,700 jobs, as employment would have fallen by 18.6 percent less than observed. While employment losses

were very large in that industry, 34,200 additional jobs would have been lost with

constant 1979 exports. The counterfactual changes in Apparel are notable. Observed employment loss would have been an employment gain if imports had been held at the 1979 level. Where observed employment fell by 39.7 percent, it would have risen by 25.3 percent with constant imports, a difference of 711,650 jobs. With constant imports and exports, employment would have increased by 18.5 percent, a difference of 636,700 jobs. For Electrical machinery, the largest industry in 1979 by employment, neutral trade would have increased employment by 39.2 percent, rather than its observed decrease of 10.2 percent, a difference of 619,700 jobs.

In many industries, holding exports at their 1979 levels would have resulted in larger employment losses, and considerably so in high-wage industries. In Blast Furnaces, employment would have fallen by an additional 63,839; in Aircraft and parts, employment would have fallen by an additional 195,288; in Motor vehicles, an additional 206,696; in Iron and Steel foundries, an additional 26,044.

Holding imports at 1979 levels would have resulted in smaller employment losses in a number of industries: in (small) Leather products, 9,936 jobs would have been “saved”; in Tires and Inner tubes, 26,030 jobs; in Construction and Material Moving machines, 113,270 jobs. In some small employment industries, employment would have increased instead of decreased: in Watches and Clocks, 28,556 jobs (employment would have increased by 33.4 percent, instead of falling by 69.7 percent); in Toys and Sporting Goods, 30,965 jobs, a growth of 20.8 percent instead of a decline of 4.7 percent; in Scientific and Controlling Instruments, 22,210, a growth of 20.6 percent instead of the smaller +3.3 percent.

In sum, if exports do represent jobs more closely than imports represent the absence of a job, then the relationship between rising exports and rising employment could well be stronger

Estimated Job Impacts without Trade
Change 1979-1994

EXPORTS AT 1979 LEVELS

<i>Industries</i>	<i>Jobs Lost</i>
Blast Furnaces	63,840
Aircraft and Parts	195,290
Motor Vehicles	206,700
Iron and Steel Foundries	26,040

IMPORTS AT 1979 LEVELS

<i>Industries</i>	<i>Jobs Held</i>
Leather Products	9,940
Tires and Inner Tubes	26,030
Construction and Material	113,270
Moving Machines	

TRADE AT 1979 LEVELS

Watches and Clocks

<i>Actual Change</i>	<i>Estimated Change</i>
-69.7%	33.4%

Toys and Sporting Goods

<i>Actual Change</i>	<i>Estimated Change</i>
-4.7%	20.8%

Scientific and Controlling Instruments

<i>Actual Change</i>	<i>Estimated Change</i>
3.3%	20.6%

than the relationship between rising imports and falling employment. Venturing into the difficult terrain of speculating how many jobs are associated with trade, this result suggests that rising exports from manufacturing were associated with more job gains than the job losses that can be associated with rising import

share.

IMPLICATIONS FOR WORKERS

Another, parallel, issue examined in the research summarized here is the affect at the worker-level of the nature and extent of job loss related to trade. This analysis⁸ stays within the tradition of focusing on jobs lost to increasing imports, with only secondary attention paid to exports. A set of highly “import-competing” industries was defined as those industries in the top 25 percent of a ranking of industries by their percentage-change in import share over the 1979-94 period (from largest positive change to smallest). Industries in this top quartile include most of the ones that would be called traditional import-competing industries, as noted above: electrical machinery, radio and television, apparel, motor vehicles, footwear, blast furnaces, knitting mills, toys and sporting goods. This industry definition applied to the worker-based Displaced Worker Surveys, biennial supplements to the Current Population Survey, yielded a sample of highly import-competing displaced workers, based on a worker’s industry of displacement.

The process generated an estimate that 6.4 million manufacturing workers were displaced from highly import-competing industries over the 1979-1999 period. About 17 million manufacturing workers were displaced overall during the same period. Manufacturing accounted for about 37 percent of the total nonagricultural jobs lost over the 1979-99 period, while it represented about 18 percent of total nonagricultural employment. Nearly as many workers lost manufacturing jobs during 1979-99 (16.8 million) as were employed in manufacturing in 1999 (18.5 million).

Some import-competing industries stand out in the extent of job loss: Apparel 1,135,668 workers; Motor vehicles, 918,066 workers; Electrical machinery, 1,180,706 workers; Blast

furnaces 361,428 workers (table 1 contains a complete list). Compared to workers displaced from other sectors of the economy, such as wholesale and retail trade, utilities, or services, these manufacturing workers were slightly older, notably less educated, with longer job tenures, somewhat more likely to be minority, and far more likely to be production oriented (just less than one-half of manufacturing displaced are lower-skilled blue collar workers- fabricators, laborers, etc.).

Twenty-one percent of manufacturing displaced were high school dropouts, compared to 11.9 percent of non-manufacturing workers displaced. This difference widened in the 1990s as compared to the 1980s: the high school dropout share fell throughout the economy, but more so outside of manufacturing. Manufacturing workers are less likely to be college graduates: over 1979-99, workers with a college degree or higher comprised about 14 percent of manufacturing workers displaced and 22 percent of non-manufacturing workers displaced.

Import-competing workers analyzed were similar to other displaced manufacturing workers, with respect to age, educational attainment and job tenure. Import-competing workers were very slightly older (a larger share are 45-54 years of age). The most striking difference between import-competing displaced workers and other displaced manufacturing workers in the U.S. is the degree to which it is women workers who were displaced from import-competing industries during the period examined.

Women accounted for 45 percent of import-sensitive displaced workers, compared to 37 percent of overall manufacturing workers displaced. Some industries stand out: women accounted for 80 percent of those displaced from apparel, 66 percent of footwear displaced

workers, and 76 percent of those displaced from Knitting Mills (part of the textiles industry). Women dominate the group of displaced workers from these import-competing industries as a result of their high representation in employment in these industries

Based on their individual characteristics, workers vulnerable to rising import job loss experience varying difficulty gaining re-employment. The characteristics that limit the reemployment of import-competing displaced workers are the same characteristics that limit the re-employment of all displaced workers: low educational attainment; advancing age, high tenure, minority status; being married. Workers with high tenure and/or low skill may confront serious skill-related adjustment problems, along with having rusty job search skills. With the loss of a wage premium, unemployment insurance benefits will be relatively generous, which allows a longer job search period.

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Beyond the difficulty of finding a new job, for most workers, the costs of job loss occurred as re-employment earnings losses. Many workers found it difficult to get new employment at a level of pay similar to that of their old job. Two-thirds of re-employed workers earned less on their new job than they did on their old job, and one-quarter experienced earnings losses in excess of 30

percent. The average earnings loss was lower, but still sizeable at 13 percent. Comparable earnings losses were found among workers displaced from manufacturing work for reasons unrelated to trade: Displaced manufacturing workers, regardless of the cause of their displacement, bore similar costs. Less

formally educated workers experienced the greatest difficulty maintaining earnings. More generally, re-employment earnings losses were found to rise with greater age, fall with less education, rise with longer previous job tenure. Workers with these characteristics appeared to need the most help.

In recent discussions about addressing some of the costs of trade-related job loss, wage insurance has re-surfaced as a mechanism for (partially) compensating workers for their re-employment earnings losses. With the range of earnings changes found in the Displaced Worker Surveys, the costs of such a program are reasonable in dollar terms and a very small fraction of the estimated benefits for the U.S. from freer trade (see Kletzer and Litan 2001).

THE BASICS OF A WAGE INSURANCE PROGRAM

Wage insurance is a supplemental benefit program designed to cover some of the earnings losses following displacement, in a way that stimulates re-employment. As proposed in Kletzer and Litan (2001), eligible workers would receive some fraction, perhaps half, of their weekly earnings loss. The fraction could vary by age and tenure of the worker. Payments would begin only when a worker has a new (full-time) job and could continue for up to two years following the initial job loss, as long as the new job paid less than the old job. Annual payments could be capped at \$10,000/year. By “topping up” earnings if the new job pays less than the old, and only for a specified period, the program would offer re-employment incentives, in contrast

to the incentives introduced by unemployment insurance and training subsidies.

WAGE INSURANCE DEMONSTRATION

Congress voted to grant presidential trade promotion authority (formerly known as “fast-track”) in the Trade Act of 2002. The Act also expanded and reauthorized Trade Adjustment Assistance (TAA), the primary targeted program of assistance for trade-displaced workers.

Part of the expansion of TAA was the establishment of a demonstration wage insurance program. It incorporates several elements proposed in Kletzer and Litan (2001). Eligibility will, however, be restricted to: “trade-displaced” workers, as defined by the Trade Adjustment Assistance Act; older workers (at least 50 years of age); reemployed full-time within 26 weeks after the date of separation; reemployed at earnings not more than \$50,000 a year. Payments will be capped at \$10,000 per worker during the two-year eligibility period

A key advantage of wage insurance, as a component of the safety net for displaced workers, is that it would encourage re-employment. Other advantages include an incentive for workers to search more broadly for a job, as entry-level positions become more attractive when the earnings gap is reduced. The program effectively subsidizes retraining on the job, where it is likely to be far more useful than in a training program where re-employment prospects are uncertain. Wage insurance directly addresses the critical problem identified in studies of job loss: earnings losses upon re-employment.

CONCLUSION

Free trade, open markets, and economic integration can facilitate economic growth. The benefits of free trade are considerable and

widespread. In addition to the more well-discussed, this research highlights one underappreciated aspect of economic integration: rising exports reduce the likelihood of manufacturing job loss. But open engagement with the world does not help everyone.

The research described here provides confirmation of the concentrated costs of free trade. Manufacturing industries offer striking differences in their sensitivity of employment change and job loss to changes in trade flows. The evidence does show that rising imports are

associated with job loss. That the numbers overall may be small, or that the association is limited to a particular set of industries does not diminish the extent of the human costs. Some workers in industrialized countries will lose their jobs, and they will find new employment only at lower pay.

Proponents of expanded open trade and investment face an obligation to address the concerns of workers, companies and communities who can be hurt by free trade.

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NOTES

¹ The North American Free Trade Agreement (NAFTA), starting with its negotiations in the early 1990s and continuing through its current outcomes, has been a prime source for the jobs debate. For an early view, see Hufbauer and Schott (1993). For a recent contribution, see Economic Policy Institute (2001).

² Due to current limitations in data availability for the services sector, the study of the link between trade and employment must focus on the manufacturing sector.

³ Readers interested in the data details are directed to Kletzer (2002).

⁴ These patterns can also be examined at the plant level. See Lewis and Richardson (2001) for a summary of this research.

⁵ For details, see the discussion in chapter 4 of Kletzer (2002).

⁶ Industries aggregated at 3-digit CIC level. The industry classification system used in this study aggregates at various levels. In this research, the three-digit level was used. At a more dis-aggregated level, 4-digit for example, the imported goods might be different enough so that there would be little or no substitution between them and the domestically produced goods.

⁷ As detailed in Kletzer (2002), the simulations generated paths for changes in employment over the period 1979-94 that correspond to the counterfactual assumption of either no import change, no export change, or no change in either imports or exports.

⁸ Kletzer, (2001).