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12 Trade Adjustment Assistance under the United States Trade Act of 1974: An Analytical Examination and Worker Survey

J. David Richardson

12.1 Introduction and Overview

Since 1962 United States workers and firms suffering transitional injury due to international trade have been able to benefit from a program of "adjustment assistance." The goals of trade adjustment assistance (TAA) have been to ease transition, compensate injury, and bleed political pressure for protectionism.

Section 12.2 of the paper outlines the economic principles underlying these goals, and their shifting historical importance. Sections 12.3 and 12.4 discuss the personal characteristics of a representative sample of worker recipients of TAA in 1976, and their labor market success in several subsequent years. Their experience is compared to that of a matched sample of workers receiving standard unemployment insurance (UI). Comparisons in section 12.3 focus on differences in mean characteristics and experience between the TAA and UI samples, controlling only for whether workers returned eventually to the firm from which they

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were initially separated. Comparisons in section 12.4 focus on differences between the TAA and UI samples in their ability to recover lost employment and income, using a regression approach that in principle controls for all relevant variables, and not for just one.

The most important conclusions of the research are the following. (1) The majority of TAA recipients in 1976 were not permanently displaced, but returned eventually to their former employers. By contrast, a far greater proportion of UI recipients suffered permanent displacement. (2) Workers receiving TAA had higher incomes on average than their counterparts who received only UI. The incomes of the former furthermore fell less frequently below the poverty line. (3) TAA recipients nevertheless experienced more frequent and enduring transitional unemployment than did UI recipients, and did not return to their former income level as rapidly. (4) The reasons for conclusion (3) were unclear. In particular, it could not readily be explained by differences between the TAA and UI samples in permanence of layoff, generosity of program benefits, age, experience, industry, affluence, economic environment, socioeconomic status, or behavioral responses to any of these variables.

Conclusions (1) and (2) are at variance with most previous work on TAA. Conclusion (3) is not, but the traditional explanations for it are those that conclusion (4) rules out.

12.2 Historical and Economic Underpinnings of United States Trade Adjustment Assistance

12.2.1 Economic Underpinnings

United States trade adjustment assistance (TAA) can be historically explained as alleviating three problems that relate to international trade liberalization. The first is a problem of distributional equity, reflected in protectionist political pressure, and the second, of allocative efficiency, reflected in much economic commentary.[1] Political economy plays an important role in its most recent justification—it is now frequently defended as a bribe necessary to avoid disastrous deliberalizing trade wars.

1. *Distributional equity*. Except in ideal worlds, there are always gainers and losers from trade liberalization. To design and carry out practical mechanisms whereby *every* loser was fully compensated (and more) would require a mammoth diversion of any nation's resources from wealth-producing to wealth-transferring activity. Yet in the absence of such mechanisms, there may be instances in which trade liberalization is rejected or reversed because it undermines a society's sense of equity or because its rejection creates an implicit contractual claim to comparable protection (insurance) in similar circumstances by those who sacrifice

their gains from trade liberalization voluntarily (in order to inherit such insurance).[2] Once one grants either such altruism or such implicit social contracting, there exists the possibility of a social consensus that the moderately increased satisfaction of the many from trade liberalization could be judged insignificant compared to the dramatic unhappiness imposed on the few.[3]

Partial compensation is of course one compromise position between no compensation and maintenance of the status quo. It seems reasonable to insist that government policies like trade liberalization, undertaken in the name of the whole society, should not burden any one part of it excessively.

2. *Allocative efficiency*. Furthermore, the kind of losses that trade liberalization can cause are in part *social* losses. In the face of contractually determined, downwardly rigid rates of increase[4] in wages, rents, borrowing costs, and dividends, trade liberalization that discourages domestic demand for import substitutes may cause temporary layoffs and idling of productive land and equipment. Dislocated labor and resources are made involuntarily unproductive until they can be reabsorbed.[5] And even then, their productivity may remain temporarily below par if labor must be retrained and if resources must be retooled, refurbished, and relocated—often by labor and resources that are themselves diverted from other productive activity. The national efficiency cost of this adjustment process is measured by the value of goods which could have been produced, but were not, because of temporary unemployment, underutilization, and diversion of resources.[6] (And there may also be very real subjective and psychic costs to those unemployed that affect their future productivity unfavorably and permanently.)

Both of these concerns can be seen underlying the United States political/economic/philosophical concept of "injury" that was prominently stressed in the Trade Agreements Act of 1934.[7] The belief is that trade liberalization should be abandoned if it involves undue economic injury to United States firms or labor groups. That rule was formalized in the late 1940s by the "escape-clause" provisions of United States trade legislation, and also by Article XIX of the General Agreement on Tariffs and Trade (GATT). Governments could "escape" from trade concessions that caused undue injury by restoring their previous trade barriers or acceptable substitutes. The domestic income distribution would presumably return toward the desired status quo. And wasteful unemployment of labor and resources would be discouraged.

Invoking the escape clause, however, appeared to many commentators to be a costly way to avoid undesirable dislocation. It essentially surrendered all resource-reallocation and standard-of-living gains that had come from trade concession in the name of avoiding inequity and disloca-

tion, thereby throwing out the baby with the bath water. Furthermore, under the rules of the GATT, recourse to the escape clause allowed trading partners to be compensated[8] through retaliation—which could sometimes impose unexpectedly severe injury on the United States exportables sector. Finally, the United States escape clause made other nations less willing to embark on significant multilateral liberalization, since they could not be certain of just how permanent United States concessions would be (Metzger 1971, p. 324).

In practice, the escape clause was simply infeasible as a tool for avoiding inequity and dislocation while pursuing expanded national purchasing power through trade. Between 1947 and 1962, the United States Tariff Commission found injury in thirty-three escape-clause cases brought before it and split evenly in eight more. Of the forty-one, the President invoked the escape clause in fifteen and refused to do so in 26, presumably with an eye to foreign reaction and retaliation. In the fifteen, at least some beneficial trade liberalization was abandoned. In the twenty-six, at least some undesirable injury was left unrequited.

To several commissions and commentators in the 1950s, this Hobson's choice was neither intrinsic nor inevitable.[9] Most explored and recommended alternative ideas that later became embodied in trade adjustment assistance: (1) directly targeted financial support to compensate both dislocated labor and firms; and (2) encouragement to both labor and firms to reorient quickly their skills, resources, and enterprise toward expanding buoyant industries (such as exportables) where their productivity would be enhanced in the long run. It was hoped that the former aspect would ease distributional inequities from trade liberalization, and thereby remove political obstacles to it. It was hoped that the latter aspect would reduce the duration of inefficient, involuntary unproductivity for resources moving among sectors, and thereby reduce the economic cost of trade liberalization. Neither aspect, of course, would force the United States to forego beneficial trade concessions. And neither would provoke foreign anger, retaliation, or reluctance to bargain. Administrative resource costs of each kind of compensation would probably have seemed comparable—some government agency would have to investigate and recommend in each case, and the executive branch would have to approve or deny the recommendation. For all dimensions taken together, therefore, trade adjustment assistance seemed in principle to dominate escape-clause relief.

3. *Bribes.* In recent years, the issue underlying trade adjustment assistance has changed from "how much trade liberalization?" to "how much protection?" As a result, TAA is frequently defended from a new point of view that springs from political economy. It is argued that if TAA were not available, the political forces for increased protection would domi-

nate, imposing large social costs through inefficiencies that would increase exponentially as trade barriers rose. TAA still assists and adjusts *ex post*. But now it also bribes *ex ante* those coalitions of losers from trade that would destroy a socially beneficial status quo in the absence of TAA. In its new role, then, TAA has additional distributive and allocative effects: it compensates groups with credible threats to do social harm and avoids the allocative inefficiencies that are the instruments of that potential harm.

12.2.2 The Program under the Trade Expansion Act of 1962

The Kennedy administration was prodded by attitudes both at home and abroad to propose trade adjustment assistance formally in 1962. Kennedy very much wanted significant multilateral tariff cuts to assure United States access to the burgeoning European Common Market. To gain the same commitment from European nations, he proposed significant tightening of the criteria for escape-clause relief, so as to reassure them of the permanency of United States concessions. To reassure Congress about this tightening and to gain congressional authority for substantial tariff cuts, he proposed TAA as the preferable way of relieving any United States injury. A cautious Congress incorporated a carefully circumscribed program[10] into the Trade Expansion Act of 1962.

The most important distributional assistance provisions of this early TAA program were

—for labor: supplements to unemployment insurance (UI) payments to replace 65 percent of normal income for up to one year,[11] and up to a year and a half for workers who were over sixty or being retrained, as long as such payments did not exceed the maximum income-support level of 65 percent of the average weekly manufacturing wage;

—for firms: special tax privileges that enabled them to increase after-tax profits.

The most important provisions that were designed to reduce inefficiency by speeding adjustment included

—for labor affected (or threatened) by trade liberalization: (1) special encouragement to take part in existing training, counseling, and job-placement programs (but no special programs); and (2) relocation allowances covering family moving expenses to a new job elsewhere;

—for firms affected (or threatened) by trade liberalization: low-interest loans or loan guarantees for modernization or retooling of plants and equipment and for acquisition of working capital; free technical consultation on adapting to change, and on sales outlooks and forecasts.

In practice, trade adjustment assistance under this legislation was initially nonexistent. The support of organized labor for the United States

program quickly dried up as seven years went by with significant import growth but without a single approval of *any* adjustment assistance case. (Six cases were turned down.) Adjustment assistance, in the eyes of most labor spokespersons, was a cruel hoax.

What created this dormancy was a combination of stringent criteria for eligibility and strict interpretation of the criteria by the Tariff Commission officials responsible for ruling on each case. To be approved for adjustment assistance benefits, petitioners had to prove not only that they had been injured by United States trade liberalization, but that it had been the *major* cause of their injury. "Major" was initially interpreted to mean "single most important." That conservative interpretation made approval almost impossible—labor and management are continually buffeted by a myriad of other important shocks in addition to trade liberalization.

Furthermore, the process of applying for adjustment assistance was a bureaucratic nightmare. It not only diverted the services of company and union officials, but also required lawyers in preparation of "the case," and finally involved considerable time. Each case had to be determined within roughly eight months, but coupled with other lags and delays, it could sometimes take more than two years to receive the first adjustment assistance payments—even when the case was approved.[12] There is no doubt that many firms and labor groups simply were unwilling to apply. Even approval would have been unprofitable. For them, adjustment assistance might just as well not have been available.

The Nixon administration brought a shift toward less strict interpretations in the early 1970s and revived United States adjustment assistance. Both applications and approvals accelerated. Legislative revision of the adjustment assistance program under the Trade Act of 1974 made an even more dramatic impact, as revealed in table 12.1. Most dramatic of all is the increase in petitions and projected outlays brought on by the auto-centered recession of 1979–80. These are not reflected in the table but have been estimated to require an *extra* $1 billion of outlays in fiscal 1980 and $0.4 billion in fiscal 1981 (*Washington Star*, 3 April 1980). A total of 859 petitions for TAA were filed during the first three months of 1980 alone (Rosen 1980, p. 2)!

12.2.3 The Program under the Trade Act of 1974

Under the Trade Act of 1974, the number of workers certified eligible for TAA benefits quickly rose to more than ten times its annual average under even the liberal administration of the former program. And budget outlays mushroomed comparably.

Statutory changes that made adjustment assistance more attractive included (1) raising labor's potential income support with TAA supplements to 70 percent of normal income, as long as this did not exceed 100

percent (raised from 65 percent) of the average weekly manufacturing wage; (2) requiring that labor cases be determined in two, not eight, months, by the secretary of labor, and not by the slow-moving, quasi-judicial International Trade Commission (née the Tariff Commission); (3) providing separate funds out of tariff revenues for retraining trade-displaced workers; and (4) allowing reimbursement for a portion of job-search expenses.

But by far the most important statutory changes related to eligibility. First, adjustment assistance was made potentially available to firms and labor injured by imports for *any* reason, whether because of government trade concessions or not. And second, imports needed only to contribute importantly to the injury, not be its major cause.

While the second change is laudable from the point of view of equity (and perhaps efficiency), the first raises awkward questions regarding a distributional defense of TAA—that policy for the national interest not impose excessive burdens on any citizen. Why, for example, should workers be compensated at higher than UI levels for market-determined injury just because the markets are international? Is it economically defensible that the United States compensate domestic producers who are in an extreme case lazy or slow to adopt technological advances, thereby losing competitiveness to foreigners? Compensation for such injury *is* possible under the new adjustment assistance program. The increasingly familiar answer is that "political reality" dictates such compensation as a supernormal bribe to mollify protectionists. But the potential conflict between this rationale and a society's distributional goals is apparent. Such bribes may create inequities rather than curing them. And they clearly distort market signals and incentives.[13]

A second answer might begin with the observation that most foreign governments are committed to aiding industries that suffer structural dislocation and adjustment problems from any source, including the market.[14] In the light of this, protectionist changes in United States adjustment assistance can perhaps be defended as defensive, equalizing retaliation to foreign beggar-your-neighbor policies with adverse consequence for the United States income distribution.

A general impression of the 1974 program in practice is that its assistance (equity) provisions have been considerably more successful than its adjustment (efficiency) provisions. And success for one is not necessarily unrelated to failure for the other. Insufficient attention has been drawn to the intrinsic incompatibility of "assistance" and "adjustment" programs as presently structured: one of the surest ways to bring about adjustment would be to provide no assistance, and assistance that compensated for every burden would leave no incentive to adjust. One of the surprising conclusions of the worker survey reported on in subsequent sections was the large number of TAA–supported workers who returned not only to

Table 12.1 **The History of United States Adjustment Assistance**

	Adjustment Assistance for Labor					Firm Adjustment Assistance		
	Cases Approved	Cases Denied	Number of Workers in Cases Approved	Number of Workers in Cases Denied	Dollar Outlays (millions)	Cases Approved	Cases Denied	Dollar Outlays (millions)
Under the Trade Expansion Act of 1962								
1962–72[1]	56	80	23,519	27,632	n.a.	6	15	n.a.
1972–75[2]	54	91	30,380	39,799	n.a.	22	n.a.	n.a.
Total	110	171	53,899	67,431	75.6	28	n.a.	45.3
Under the Trade Act of 1974								
1975[3]	123	112	51,261	56,887	n.a.	13	1	3.5
1976	428	442	131,765	177,889	162.5	25	3	14.4
1977	413	612	107,674	99,624	151.7	116	3	24.3
1978	844	1,010	126,403	−65,179[4]	280.0+	129	1	72.2
1979[5]	710	957	165,123	63,189[6]	270.0[7]	n.a.	n.a.	n.a.

Sources: United States House of Representatives, Hearings before the Subcommittee on Foreign Economic Policy of the Committee on Foreign Affairs, Ninety-Second Congress, Second Session, 24–26 April, 9–11, 17 May 1972, entitled *Trade Adjustment Assistance* (Washington, 1972), p. 49; President of the United States, *Twentieth Annual Report on the Trade Agreements Program—1975*, pp. 47–50; *Twenty-First Annual Report on the Trade Agreements Program—1976*, pp. 56–59, 74; *Twenty-Second Annual Report on the Trade Agreements Program—1977*, pp. 65–70, 118; *Twenty-Third Annual Report on the Trade Agreements Program—1978*, pp. 92–93, 163–66; United States Department of Labor (1979) table entitled "Cumulative Program Activity."
Note: n.a. = not available.
[1]October 1962, when the Trade Expansion Act took effect, through February 1972.
[2]March 1972 through March 1975, when the Trade Expansion Act was superseded by the Trade Act of 1974.
[3]The nine months from April to December.
[4]The cumulated total of workers denied adjustment assistance unaccountably *falls* from the 22d to the 23d *Annual Report on the Trade Agreements Program* (see sources above). Three industries account for almost all the decline:

	Workers Denied Trade Adjustment Assistance	
	4/3/75 – 12/31/77	4/3/75 – 12/31/78
Total	334,404	269,221
Fabricated Metal Products (SIC 34)	40,308	9,305
Electrical Machinery (SIC 36)	26,056	16,194
Transportation Equipment (SIC 37)	135,635	64,438

[5]First eleven months of 1979 except for dollar outlays, which are for the calendar year.
[6]332,410 less 269,221 (see note 4 above).
[7]*Washington Post*, 10 April 1980.

their former industry, but to their former firm (roughly three out of every five), and even to their former job.[15] Generous TAA benefits may even have brought about a perverse expansion of the number of workers needing to be compensated—if it made employers more willing to lay them off.[16] Once a worker is certified eligible for TAA benefits, that eligibility is automatically activated for all layoffs covered by the petition in the subsequent two years.

On the basis of the survey of 1976 recipients that is described below, adjustment aspects of the 1974 program—training, counseling, job-search, and relocation allowances—were neglected about as much under the 1974 program as earlier. Less than 10 percent of TAA recipients took advantage of available employment services, and published figures on cumulated experience are even more discouraging (United States Department of Labor 1979). Only 1 out of every 30 TAA recipients from 1975 through 1979 (November) entered training; only 1 out of roughly 200 received a job-search allowance; and only 1 out of roughly 350 received a relocation allowance.[17]

Distributional goals and realizations are by contrast much more consistent. Combined UI and TAA payments replaced 76 percent of after-tax income on average for as long as the eligibility of workers surveyed lasted. Nevertheless, the survey reveals that workers who are permanently displaced by trade seem to suffer a large income sacrifice even three or four years after displacement (10 percent lower incomes for men than in their former job, compared to 20 percent *higher* incomes for comparable UI recipients; 5 percent lower for women, compared to 16 percent *higher*). And it seems there still remained substantial unpredictability and unduly long delays in the process of petition, certification, and delivery of benefits. Despite the attempt to streamline the process, the first TAA payment was still generally received more than a year after the separation that justified it.[18] Lump-sum payments were still received by almost four out of five surveyed TAA recipients, and delays in payments during the first year after separation caused workers' income losses to be more than 50 percent higher than if TAA payments had been made "as earned."

12.3 TAA Experience under the Trade Act of 1974: Means and Cross-Tabulations from a Comparative Survey of Workers

Describing the beneficiaries of the program, including the stability, level, and growth of their income, is more important for TAA than for many other government programs because of its distributional and political justifications. Sensible assessments of the program must identify whether those who are aided are in fact "deserving" by some measure of equity or political muscle. And such assessments should attempt to

measure the extent to which program benefits offset injury.[19] How the "deserving" are defined—whether as poor, old, ambitious, productive, politically powerful, or some combination—will not concern us here.

We will characterize workers receiving TAA, and not firms. In this section we do so by comparing them one-dimensionally and two-dimensionally to a sample of peers, focusing on unconditional mean differences or else controlling for one other variable via cross-tabulations. In the next section we compare TAA recipients to their peers multidimensionally, controlling when feasible for all variables that are alleged to cause different worker experience via regression analysis.

12.3.1 A Recent Survey

The most recent survey of worker recipients of TAA was commissioned by the United States Department of Labor and is summarized in Corson et al. (1979).[20] Sample design and survey methods are described at length in appendixes A and B of that report.

Interviews were carried out from November 1978 through February 1979, virtually all of them in person, under the supervision of Mathematica Policy Research, Inc. (Princeton, New Jersey). Interviewees had received first TAA payments in 1976, and the survey sample was designed to represent the population of 1976 TAA recipients. Eighty-four percent of those interviewed were separated from their employer in late 1974 or 1975; 16 percent were separated in 1976. For comparison purposes, a smaller sample of UI recipients (not receiving TAA) was selected from the same state unemployment offices that administered benefits to TAA recipients.[21] The interview form was pretested and modified accordingly. Interviewers were trained and continually supervised. Interview data were cross-checked through subsequent calls and visits by supervisors. The response rate among TAA recipients was 70 percent, and among UI recipients 54 percent. A few known characteristics of nonrespondents (from state unemployment office records) were compared to characteristics of respondents. These suggested little nonresponse bias and no particular reason for believing that biases which remained affected one group unduly compared to the other. The ultimate survey sample consisted of

—963 TAA recipients,

—538 UI recipients.

The TAA sample was stratified by industry, represented in the same proportions that characterized the industry source of 1976 TAA payments. Columns (1) and (2) of table 12.2 describe the interindustry manufacturing distribution of workers in the survey (only one worker interviewed was in a nonmanufacturing industry) and in the corresponding national population of TAA recipients. Column (3) suggests that the distribution has some claim to generality, having not changed signifi-

Table 12.2 **Percentage Distribution of TAA and UI Recipients in Manufacturing, by Industry**

	TAA Recipients			UI Recipients
	1976 Survey Sample (1)	1976 National Population (2)	1975–80[1] National Population (3)	1976 Survey Sample (4)
Footwear	7.7	8.4	10.3	0.4
Apparel and other nondurables	30.3	25.7	22.5 plus[2]	22.8
Automobiles	23.7	28.7	22.6	12.7
Steel	20.6	18.1	18.9	19.2
Other durables	17.7	19.1	11.8 plus[2]	44.9

Sources: Column (2) from Corson et al. (1979, p. 192); columns (1) and (4) from data tape underlying Corson et al. (1979); column (3) from Rosen (1980, p. 3).
[1]From the start of the program through the first three months of 1980 only.
[2]13.3 percent of TAA recipients are unaccounted for in the source cited above.

cantly during the first five years of the new program. In late 1979 and early 1980, however, the auto industry's share of TAA certifications mushroomed. Column (4) describes the matched UI sample in the survey.

Interviews were conducted in seven states, three chosen for the high proportion of TAA payments being made there (Ohio, Pennsylvania, and New York), and four chosen randomly (California, Indiana, Massachusetts, and Virginia) from a set of four industry groupings, with the probability of selection being proportional to the number of TAA payments in each state. Sixty-five percent of the national population of TAA recipients resided in those seven states. Equal numbers of interviews were conducted at each of ten locations within each state. The locations were chosen from a random sample of TAA petitions classified by industry and weighted by the number of workers each petition covered. The locations ultimately selected reflected a significant variety of labor market conditions.

As this was the first comprehensive survey of worker experience under the Trade Act of 1974, some differences from previous surveys are due to the changes in the TAA program from the Trade Expansion Act of 1962. Chief among them is the dramatic increase in recourse to TAA, due largely to the easing of the eligibility criteria. As a result there is some reason to believe that this survey is more representative and more reliable than prior ones because of the larger pool of TAA recipients to sample and because of the reduction in any systematic bias (for example, against small petitioners) caused by excessive petition costs under the old program.

On the other hand, there are subtle differences between this survey and previous ones that arise because of changes in eligibility requirements. Because imports need now be only an important cause of injury and not the major cause, it is almost certain that workers in the current survey will be less injured by trade on average than workers in previous surveys. On the other hand, because TAA can now legally be awarded because of trade-related injury for *any* reason, whether due to prior government trade concessions or not, the current survey is probably more representative than earlier ones of workers displaced by imports as a whole, rather than just that portion of imports on which the government negotiated liberalization.

12.3.2 Characterizing TAA Recipients

The most important information in evaluating the TAA program concerns the characteristics and experience of workers receiving TAA. Some of these characteristics and experiences in our sample confirmed widespread impressions; many did not. Some are well known from previous surveys; others have received little notice.

It is known, for example, but underemphasized, that almost all recipients of TAA work in manufacturing industries. Hence their peers are most accurately other manufacturing workers, not United States labor at large. It is also well known that TAA recipients are more concentrated than their peers in footwear and apparel, as table 12.2 reveals. It is less well known that the auto industry is the source of a much higher proportion of TAA recipients than of their peers—even as early as 1976. These industry differences between the TAA and UI samples can be argued to be the sole source of differences between beneficiaries of TAA and others, without any reference to international trade. But this observation begs the question of what caused the industry differences—to which a sensible answer is international trade.

Among the most important findings of this survey is that TAA recipients were much more likely than UI recipients to experience temporary unemployment or reduced hours, as revealed in table 12.3. They were only barely more likely than UI recipients to have worked for a company that closed down, and much less likely to have changed their industry or occupation between separation and the interview, roughly three years later. For TAA recipients, worker experience differed significantly among those on permanent layoff, those on temporary layoff, and those on reduced hours. Workers on temporary layoff made up the majority of the TAA caseload. Since most previous commentary on TAA has focused on permanently displaced workers, it is useful here to describe the connection between temporary worker displacements, international trade, and the TAA program.

Table 12.3 **Percentage Distribution of Surveyed TAA and UI Recipients (1976), by Type of Separation and Adjustment**

	TAA Recipients	UI Recipients
Type of Separation		
Permanent	25.2	56.8
Temporary	58.2	39.9
Reduced-hours[1]	16.6	3.3
Adjustment		
Company closed down	16.0	15.2
Changed industry	15.6	31.2
Permanently displaced	67.5	68.0
Changed occupation	25.1	39.1
Permanently displaced	54.0	60.8

Source: Corson et al. (1979, pp. vi, 38, 42, 68).
[1]The average reduction was from forty-one hours per week to twenty-three hours per week, and the average spell of reduced-hours employment lasted fifty-six weeks.

Temporarily displaced workers have both unique advantages and unique problems when compared to the permanently displaced workers usually visualized as being primary recipients of TAA. Relative to permanently displaced workers, the duration of trade-related dislocations for those temporarily displaced is likely to be short, and their income loss only moderate. But if such short spells of unemployment occur more frequently because of trade, workers who are prone to temporary displacement may still suffer disproportionately from unpredictable and uncertain income streams.[22] Compensation for such volatile incomes and job prospects might be an important justification for paying temporarily displaced workers. No clear adjustment (efficiency) motive exists for TAA in this case because it is not obvious that the workers should leave the industry on economic grounds.

But why should trade increase the volatility of worker incomes in import-competing industries? There seem to be a number of reasons. First, in industries such as steel, dumping is widespread and unpredictable, causing United States business to sag notably some years (even quarters) and rebound in others. Second, speculative import purchases may take place when dollar depreciation threatens, and then may be offset subsequent to dollar depreciation by abnormally low import purchases. Domestic business can be correspondingly slack, then prosperous,[23] depending on product durability, substitution patterns, and buyer loyalty to competing varieties. Employment in domestic industries can thus be correspondingly slack, then prosperous. The auto industry seems to be a good candidate for sensitivity to exchange-rate-related demand fluctuations. And speculation based on changes in orderly marketing agreements can have similar effects.

But does TAA cause some temporary unemployment while alleviating its burdens? An unanswered question is whether the liberal availability of TAA supplements to standard unemployment insurance increases incentives that encourage employers to lay off workers temporarily (because such workers are better accommodated), as discussed above. If so, any such additional workers will be worse off because their TAA payments do not match their straight salary. And there may be some cost to the economy as a whole if the temporary nature of a worker's dislocation inhibits job search and if TAA keeps workers affiliated with a declining industry when more productive positions are available elsewhere.

Similar questions arise with respect to the availability of TAA for workers placed on reduced hours by their employers. Presumably employers use the option of reducing or increasing hours for the same reasons they use temporary layoffs. And fluctuations in hours may be related to trade in the same way as temporary layoffs. But once again, to the extent that TAA availability for reduced hours encourages employer recourse to them, it increases the need for compensation while simultaneously satisfying it. TAA availability may again undermine any adjustment goals of the program by indenturing workers to a declining industry and discouraging their job search. From an efficiency perspective, it is clearly better to have half as many workers full-time (with the remainder in other jobs) than the historical work force all working half-time.

Some findings from the present survey confirm common beliefs about TAA recipients, whether permanently, temporarily, or partially dislocated. Table 12.4 reveals that they are somewhat older, less educated, more stable in their employment history, and more likely to be union members, female, minority status, married, and the head of a household than the average unemployed worker.[24]

But they are not likely to be poorer. Fewer fall below the poverty line. And their predislocation incomes (principally for men) exceed the incomes of their peers, as do household incomes. This finding seems to preclude any relative-income, "progressive" motivation for maintaining TAA benefits that are more attractive than UI benefits.

The conventional belief that trade-displaced workers face more difficult short-run adjustment problems than a typical unemployed worker does seem to be borne out in table 12.5, especially for those who are permanently laid off. The duration of their initial unemployment spell is longer than for UI recipients, and the incidence of recurrent separations is slightly more frequent. Those TAA recipients never recalled to their previous job between separation and interview spend a larger proportion of weeks unemployed, and are more likely to be out of the labor force than their UI counterparts. The latter finding may reflect retirement or discouragement more than anything else, since TAA recipients were

Table 12.4 **Distribution of Surveyed TAA and UI Recipients (1976), by Personal and Preseparation Job/Income Characteristics**

	TAA Recipients	UI Recipients
Personal characteristics		
Mean age in years[1]	39.9	35.9
Mean years of education[2]	10.4	11.4
Percent that had vocational or technical schooling[2]	24.8	27.6
Percent female	38.5	35.5
Percent minority	20.9	19.7
Percent married[2]	79.0	68.1
Percent head of household[2]	94.5	87.7
Preseparation job/income characteristics		
Mean years tenure	11.8	7.8
Percent quit or fired (not laid off)	1.1	6.8
Percent in union[3]	81.3	65.8
Mean annual income of recipient[4]	$11,080	$9,820
Mean annual income of spouse[4]	$2,690	$2,820
Percent of households with income below poverty line[4]	1.9	3.7

Source: Corson et al. (1979, pp. 17, 21, 28, 38).
[1]At separation date.
[2]At interview date.
[3]At separation date, not including workers on reduced hours in the base.
[4]In year before separation, 1975 dollars.

relatively less likely to receive training. There is, of course, a potential causality problem in these findings. Comparatively generous TAA benefits may have encouraged workers to take longer to locate a new job and hence increased their measured unemployment spells at first. This could be true despite the lumpiness and unpredictability of TAA payments.

By the interview date, roughly three to three and a half years after initial layoff, most differences in the adjustment burdens of TAA recipients and typical unemployed workers disappeared. TAA recipients are actually less likely to be unemployed or out of the labor force (barely) than others. But those who have not returned to their earlier jobs are likely to have experienced a significantly greater decline in income than the average reemployed worker (and even the temporarily displaced TAA recipients suffer a small relative decline). They might have been presumed to lose rents on accumulated on-the-job skills that are probably greater than those of the average unemployed worker, since TAA recipients have a longer and more stable work history. They may also have lost some rents that are unrelated to skill and a function of their former industry's political pressure for protection against imports.

Some of these findings are surprising in the light of previous surveys of TAA recipients (see note 12). Part of the explanation can be found in the

Table 12.5 **Distribution of Surveyed TAA and UI Recipients (1976), by Job Market Experience between Separation and Interview**

	TAA Recipients	UI Recipients
Between separation and interview		
Mean weeks of first unemployment spell after separation	21.9	21.9
Permanently displaced	41.8	32.8
Temporarily displaced	17.4	16.3
Percent of weeks unemployed	18.4	20.9
Never recalled	28.0	25.4
Recalled at least once	15.6	18.0
Percent of weeks out of the labor force	8.3	9.9
Never recalled	26.3	20.5
Recalled at least once	3.0	3.1
Percent of weeks employed	73.8	69.5
Never recalled	46.0	54.6
Recalled at least once	82.0	79.2
At interview		
Percent unemployed	7.2	11.6
Percent out of labor force	11.9	12.0
Percent employed	80.9	76.4
Ratio of mean weekly wages: interview job to preseparation job[1]		
Permanently displaced	0.92	1.18
Temporarily displaced	1.22	1.25

Source: Corson et al. (1979, pp. 48, 58, 59, 64, 65, 69).
[1]1975 dollars.

rapidly shifting industrial incidence of injury from trade in the early 1970s. The relative importance of the footwear industry and the electronics industry declined in successful TAA petitions; the relative importance of apparel, autos, and steel increased (apparel has since declined and footwear has risen again, according to table 12.2). This altered worker characteristics among TAA recipients because skill mix, ethnic concentration, job stability, and average wages differ substantially from industry to industry. And it was to be expected to the extent that cumulative and ongoing competitive pressures (many from newly industrializing countries) reduce the industrial importance of declining United States industries such as footwear and textiles by causing marginal firms to fail.

12.3.3 The Sample as a Reflection of the Effects of Both Trade and TAA

It would have been valuable to be able to measure *separately* the effects of import competition on workers and the effects of the TAA program itself (see note 19). No continuous measure of the former was employed besides the certainty that trade had been an "important" cause of dislocation, as prescribed by the legislation embodying certification

requirements.[25] It was impossible to know just how important trade alone had been in altering wages and working conditions before and after TAA receipt. The survey measured mixed effects of both trade and TAA on wages and working conditions. Since TAA in many aspects is designed to offset the impact of trade on United States workers, it seems likely that the survey and the analysis below understate both the (presumably unfavorable) effects of import competition on some United States workers and the (presumably favorable) effects of TAA. They do, however, probably reflect the net effect of both forces with considerably more accuracy. One test of the success of TAA in achieving its distributional goals would be that these net effects are small.

Measuring the impact of trade alone on workers is a difficult task. Yet it is done subjectively every day in administrative determination of certification. A valuable complement to surveys like the one summarized would be research on the certification process itself. What economic and other variables underlie decisions to approve or disapprove a TAA petition? Can one determine a set of variables and the weights attached to them that predict the yes/no decision on the petition with some accuracy?[26] If so, one could use those same variables and weights to measure the severity of workers' injury from trade. One might also be able to explore the budgetary and performance implications of changing the weights attached to the criteria underlying certification, as is implicitly proposed whenever TAA is legislatively reconsidered.

12.4 TAA Experience under the Trade Act of 1974: Job and Income Recovery in a Regression Approach

One- and two-dimensional comparisons of TAA and UI recipients are sometimes misleading. Many comparisons in section 12.3 are explained not so much by TAA/UI differences in programs, labor markets, or competitive pressures as by TAA/UI differences in age, experience, industry mix, etc. Cross-sectional multiple regression provides a useful way to control for less important sample differences among workers while focusing on those that are most interesting.

Tables 12.6 and 12.7 provide examples of such regressions, each vector of estimated coefficients being displayed in a column. The dependent variable explained in table 12.6 reflects medium-term employment recovery after initial separation—it is the percentage of weeks employed in the three to three and a half years between initial separation and interview.[27] The dependent variable explained in table 12.7 reflects medium-term income recovery in the same period—it is the log of the weekly wage (in 1975 dollars) of each individual in his or her job at the interview date, *given* (as an independent variable) his or her weekly wage (in 1975 dollars) before separation.[28]

Table 12.6 **Job Recovery Regressions: Determinants of Percentage of Weeks Worked between Separation and Interview**

TABLE ENTRIES GIVE Extra percentage of weeks worked . . .	Entire Sample	All UI Recipients	All TAA Recipients	Permanently Displaced UI Recipients	Permanently Displaced TAA Recipients
SAMPLE IDENTIFIERS					
. . . if individual *received trade adjustment assistance*	−4.56 (2.40) .06	—	—	—	—
. . . if individual *experienced temporary separation*	21.34 (2.01) .00	19.33 (4.40) .00	23.66 (2.40) .00	—	—
ADMINISTRATION OF BENEFITS AND SEPARATION					
. . . for each extra percent of after-tax income before separation that UI and TAA benefits *replaced* during *first spell* of unemployment[1]	−0.0481 (0.0480) .32	0.0821 (0.140) .56	−0.0538 (0.0518) .30	0.156 (0.236) .51	0.215 (0.124) .09
. . . for each extra percent of after-tax income before separation that UI and TAA benefits *replaced* during *all spells* of unemployment[1]	0.0122 (0.00957) .20	−0.00433 (0.0355) .90	0.0212 (0.00974) .03	−0.0155 (0.0510) .76	0.0152 (0.0145) .30
. . . for every week of official employer *notification* prior to separation, or of "*suspected* job loss" prior to notification	0.0400 (0.0641) .53	0.0685 (0.120) .57	0.0527 (0.0838) .53	0.0620 (0.187) .74	0.226 (0.210) .28
ECONOMIC ENVIRONMENT					
. . . if recipient was a *union* member in the preseparation job	−4.67 (2.32) .04	−3.97 (4.80) .41	−5.94 (2.85) .04	−4.63 (7.36) .53	−7.31 (7.29) .32

Table 12.6 Continued

TABLE ENTRIES GIVE Extra percentage of weeks worked . . .	Entire Sample	All UI Recipients	All TAA Recipients	Permanently Displaced UI Recipients	Permanently Displaced TAA Recipients
. . . if the recipient's company *closed* down	4.19 (2.35) .07	7.75 (5.82) .19	5.54 (2.66) .04	0.373 (14.43) .98	4.74 (7.44) .53
. . . for each extra percent of labor force *unemployed* in state and industry group	0.216 (0.261) .41	0.264 (0.602) .66	0.199 (0.292) .49	0.215 (1.31) .87	0.319 (0.793) .69
INDUSTRY					
. . . if individual worked in the *apparel* industry rather than durables (less autos, steel)	14.27 (3.37) .00	15.66 (9.35) .10	15.67 (3.72) .00	17.07 16.62 .31	24.80 (9.45) .01
. . . if individual worked in the *footwear* industry rather than durables (less autos, steel)	6.67 (4.63) .15	No observations	8.33 (4.76) .08	No observations	15.09 (10.51) .16
. . . if individual worked in *other nondurables* industries rather than durables (less autos, steel)	−9.38 (4.34) .03	−11.80 (5.47) .03	No observations	−13.35 (9.36) .16	No observations
. . . if individual worked in the *auto* industry rather than durables (less steel)	−0.0268 (2.50) .99	0.534 (5.68) .93	1.96 (2.88) .50	−7.13 (15.05) .64	33.61 (9.93) .00
. . . if individual worked in the *steel* industry rather than durables (less autos)	0.216 (2.41) .93	0.750 (5.14) .88	0.249 (2.80) .93	3.38 (10.24) .74	0.387 (11.54) .97

AGE, EDUCATION AND EXPERIENCE					
. . . for each year (X) of *age*[2]	1.20 (0.826) .05	−3.00 (2.05) .15	2.99 (0.945) .00	−4.74 (4.14) .26	6.86 (2.13) .00
	−0.0326X (0.0199) .10	+0.0561X (0.0510) .27	−0.0714X (0.0224) .00	+0.134X (0.118) .26	−0.117X (0.0510) .00
age at maximum/minimum value of dependent variable[3]	36.8	53.5	41.9	35.4	58.6
. . . for each year of *education*	0.311 (0.397) .74	1.35 (0.876) .16	−0.170 (0.461) .25	1.49 (1.56) .35	−0.441 (0.965) .65
. . . for each year (X) of *experience* in the *labor force*[2]	−0.182 (0.548) .74	1.85 (1.31) .16	−0.78 (.621) .25	0.607 (2.51) .81	−2.99 (1.51) .05
	+0.0102X (0.0214) .63	−0.0324X (0.0518) .53	+0.0212X (0.0240) .38	−0.0442X (0.111) .69	+0.107X (0.0553) .06
labor force experience at maximum/minimum value of dependent variable[3]	17.8	57.1	33.9	13.7	27.9
. . . for each year (X) of *experience* in the preseparation *job*[2]	0.408 (0.294) .17	−0.184 (0.603) .76	0.290 (0.385) .45	−0.161 (1.21) .89	0.835 (1.04) .42
	−0.0147X (0.0160) .36	−0.00832X (0.0272) .76	−0.000255X (0.0228) .98	0.00458X (0.0294) .94	−0.0288X (0.0580) .62
. . . *job experience* at maximum/minimum value of dependent variable[3]	27.8	0[4]	>60[4]	35.2	29.0

Table 12.6 Continued

TABLE ENTRIES GIVE Extra percentage of weeks worked . . .	Entire Sample	All UI Recipients	All TAA Recipients	Permanently Displaced UI Recipients	Permanently Displaced TAA Recipients
SEX/MARRIAGE STATUS					
. . . if *married male* rather than unmarried male	3.54	1.68	3.71	4.05	8.48
	(2.44)	(4.96)	(2.82)	(9.77)	(8.51)
	.15	.76	.19	.68	.32
. . . if *married female* rather than unmarried male	−8.49	−11.93	−5.48	−12.28	−7.01
	(3.50)	(7.72)	(4.00)	(14.48)	(9.85)
. . . if *unmarried female* rather than unmarried male	−2.70	−12.93	−2.95	−9.81	−11.25
	(3.67)	(7.72)	(4.36)	(12.40)	(10.79)
	.46	.10	.50	.43	.30
SOCIOECONOMIC STATUS					
. . . if *black*	−3.18	−2.32	−2.10	−1.61	−21.72
	(2.37)	(6.13)	(2.64)	(33.46)	(6.66)
	.18	.71	.43	.96	.00
. . . if *Hispanic*	−5.07	−7.40	−5.27	−11.23	−12.99
	(3.63)	(7.67)	(4.22)	(14.10)	(9.37)
	.16	.34	.21	.43	.17
. . . if *disabled*	−18.21	−59.62	−3.65	−53.31	11.74
	(7.38)	(17.11)	(8.42)	(23.70)	(15.90)
	.01	.00	.66	.03	.46
INCOME POTENTIAL, ASPIRATION, AND MOBILITY					
. . . for each extra $100 of weekly *recipient income* before separation[1]	−0.311	−4.66	1.46	1.28	1.57
	(1.38)	(3.79)	(1.49)	(6.28)	(3.28)
	.82	.22	.33	.84	.63

. . . for each extra $100 of weekly *income* of *other household members* before separation[1]	0.932 (0.706) .19	2.32 (1.30) .08	0.211 (0.891) .81	2.19 (1.97) .27	−4.41 (2.66) .10
. . . if recipient was working a *second job* at time of separation	9.23 (4.81) .06	4.08 (8.73) .64	8.04 (6.22) .20	11.87 (20.35) .56	3.10 (13.01) .82
. . . if recipient expressed *willingness to move* to another area to find suitable job	−3.86 (2.07) .06	−5.33 (4.39) .23	−3.50 (2.39) .14	−6.74 (7.82) .39	5.13 (5.60) .36
CONSTANT	45.47	102.42	10.17	116.75	−58.37
R^2	0.304	0.408	0.323	0.393	0.411
CALCULATED F (significance level)	8.12(.00)	2.90(.00)	6.70(.00)	1.09(.39)	1.95(.01)
NUMBER OF OBSERVATIONS	589	152	437	76	107
DEGREES OF FREEDOM	558	122	407	47	78

Note: Each column of the table represents one regression. Each entry gives the regression coefficient, its standard error (in parentheses), and the significance level of the regression coefficient on the hypothesis that its value was zero.

[1]All nominal magnitudes deflated or inflated to 1975 dollars.

[2]Each regression includes the relevant independent variable (X) and its squared value. Each table entry records the marginal effect of the independent variable on the dependent variable, a derivative that varies with the value of X itself. The upper coefficient is that attached to the linear term (standard error in parentheses), and the lower coefficient is twice that attached to the squared term (twice the standard error in parentheses).

[3]Each table entry is that value of X (see note 2) for which weeks worked (table 12.6) or weekly income (table 12.7) is at a maximum or minimum value.

[4]Estimated maximum or minimum value of dependent variable takes place at infeasible values of X (see note 2).

Table 12.7 **Income Recovery Regressions: Determinants of Weekly Income (log) in Job at Interview**

TABLE ENTRIES GIVE Extra percentage of income earned . . .	Entire Sample	All UI Recipients	All TAA Recipients	Permanently Displaced UI Recipients	Permanently Displaced TAA Recipients
SAMPLE INDENTIFIERS					
. . . if individual *received trade adjustment assistance*	−0.831 (0.375) .03	—	—	—	—
. . . if individual *experienced temporary separation*	3.09 (0.312) .00	4.16 (0.625) .00	2.99 (0.370) .00	—	—
ADMINISTRATION OF BENEFITS AND SEPARATION					
. . . for each extra percent of after-tax income before separation that UI and TAA benefits *replaced* during *first spell* of unemployment[1]	0.00527 (0.00738) .48	0.0235 (0.0200) .24	0.00815 (0.00795) .31	0.0501 (0.0386) .20	0.0212 (0.0218) .33
. . . for each extra percent of after-tax income before separation that UI and TAA benefits *replaced* during *all spells* of unemployment[1]	0.00144 (0.00148) .33	−0.00485 (0.00504) .34	0.00322 (0.00151) .03	−0.00868 (0.00822) .30	0.00274 (0.00258) .29
. . . for every week of official employer *notification* prior to separation, or of "*suspected* job loss" prior to notification	0.0189 (0.00992) .06	0.0468 (0.0168) .01	0.0165 (0.0129) .20	0.0874 (0.0296) .00	0.0126 (0.0378) .74
ECONOMIC ENVIRONMENT					
. . . if recipient was a *union* member in the preseparation job	−0.259 (0.360) .47	−3.20 (0.680) .00	0.809 (0.439) .07	−4.52 (1.19) .00	0.113 (1.29) .93

. . . if the recipient's company *closed* down	0.429 (0.362) .24	−1.49 (0.822) .07	0.880 (0.409) .03	−2.46 (2.29) .29	1.06 (1.31) .42
. . . for each extra percent of labor force *unemployed* in state and industry group	−0.0177 (0.0402) .66	−0.00474 (0.0850) .96	−0.000795 (0.0450) .99	−0.148 (0.208) .48	0.0900 (0.140) .52
INDUSTRY					
. . . if individual worked in the *apparel* industry rather than durables (less autos, steel)	1.48 (0.521) .00	1.86 (1.32) .16	0.887 (0.573) .12	5.46 (2.63) .04	1.15 (1.59) .47
. . . if individual worked in the *footwear* industry rather than durables (less autos, steel)	1.81 0.714 .01	No observations	1.87 (0.736) .01	No observations	0.128 (1.82) .94
. . . if individual worked in *other nondurables* industries rather than durables (less autos, steel)	0.197 (0.669) .77	0.935 (0.770) .23	No observations	2.18 (1.50) .15	No observations
. . . if individual worked in the *auto* industry rather than durables (less steel)	1.04 (0.387) .01	1.32 (0.796) .10	0.848 (0.445) .06	3.50 (2.39) .15	3.53 (1.81) .05
. . . if individual worked in the *steel* industry rather than durables (less autos)	0.971 (0.372) .01	1.29 (0.725) .08	0.940 (0.433) .03	2.92 (1.63) .08	0.719 (2.05) .73
AGE, EDUCATION, AND EXPERIENCE					
. . . for each year (X) of age^2	0.123 (0.127) .33	−0.248 (0.286) .39	0.183 (0.146) .21	−0.478 (0.653) .47	0.806 (0.376) .04
	−0.00381X (0.00306) .22	0.00494X (0.00715) .49	−0.00532X (0.00345) .12	0.0107X (0.0187) .57	−0.0232X (.00898) .01

Table 12.7 **Continued**

TABLE ENTRIES GIVE Extra percentage of income earned . . .	Entire Sample	All UI Recipients	All TAA Recipients	Permanently Displaced UI Recipients	Permanently Displaced TAA Recipients
age at maximum/minimum value of dependent variable[3]	32.2	50.2	34.4	28.1	35.7
. . . for each year of *education*	0.0886 (0.0608) .15	0.123 (0.124) .32	0.0385 (0.0703) .59	0.0166 (0.255) .95	0.0968 (0.169) .57
. . . for each year (X) of *experience* in the *labor force*[2]	0.0335 (0.0846) .69	0.00335 (0.184) .99	0.130 (0.0956) .18	0.0339 (0.396) .93	−0.0770 (0.266) .77
	−0.00165X (0.00330) .62	.000231X (.00728) .97	−0.00570X 0.00369 .12	−0.00508X (0.0175) .77	0.00559X (0.00978) .57
labor force experience at maximum/minimum value of dependent variable[3]	20.3	0[4]	22.8	6.7	13.1
. . . for each year (X) of *experience* in the preseparation *job*[2]	−0.0179 (0.0454) .69	0.137 (0.0849) .11	−0.0902 (0.0592) .13	−0.129 (0.193) .51	−0.0500 (0.183) .79
	−0.000116X (0.00247) .96	−0.00626X (0.00382) .11	0.00436X (0.00352) .22	0.00393X (0.00468) .41	0.00211X (0.010) .84
job experience at maximum/minimum value of dependent variable[3]	0[4]	21.9	20.7	32.8	23.7

SEX/MARRIAGE STATUS					
. . . if *married male* rather than unmarried male	0.615	−1.11	1.15	−1.27	3.58
	(0.376)	(0.699)	(0.434)	(1.55)	(1.51)
	.10	.12	.01	.42	.02
. . . if *married female* rather than unmarried male	−0.353	−2.32	0.738	−3.13	1.99
	(0.592)	(1.10)	(0.629)	(2.34)	(1.89)
. . . if *unmarried female* rather than unmarried male	−0.717	−2.59	0.0151	−2.43	1.94
	(0.575)	(1.11)	(0.681)	(2.03)	(1.89)
	.21	.02	.99	.24	.31
SOCIOECONOMIC STATUS					
. . . if *black*	0.0755	−0.112	0.162	−9.09	−1.51
	(0.366)	(0.866)	(0.408)	(5.31)	(1.20)
	.84	.90	.69	.09	.21
. . . if *Hispanic*	−0.542	−2.48	−0.0779	−4.22	0.668
	(0.560)	(1.08)	(0.651)	(2.23)	(1.64)
	.33	.02	.90	.06	.69
. . . if *disabled*	−5.22	−7.52	−4.50	−4.18	−3.97
	(1.14)	(2.43)	(1.30)	(3.84)	(2.83)
	.00	.00	.00	.28	.16
INCOME POTENTIAL, ASPIRATION, AND MOBILITY					
. . . for every extra percent of weekly *recipient income* before separation[1]	0.655	0.982	1.40	2.92	−0.166
	(0.536)	(1.07)	(0.637)	(2.00)	(1.68)
	.22	.36	.03	.15	.92
. . . for every extra percent of weekly *income* of *other household members* before separation[1]	0.153	0.657	−0.226	0.301	0.274
	(0.329)	(0.590)	(0.397)	(1.06)	(1.29)
	.64	.27	.57	.78	.83

Table 12.7 Continued

TABLE ENTRIES GIVE Extra percentage of income earned . . .	Entire Sample	All UI Recipients	All TAA Recipients	Permanently Displaced UI Recipients	Permanently Displaced TAA Recipients
. . . if recipient was working a *second job* at time of separation	0.938 (0.742) .21	0.0198 (1.23) .99	0.427 (0.955) .65	3.77 (3.21) .25	−0.420 (2.30) .86
. . . if recipient expressed *willingness to move* to another area to find suitable job	0.602 (0.319) .06	−0.169 (0.620) .79	0.981 (0.368) .01	0.181 (1.24) .89	2.56 (0.988) .01
CONSTANT	2.61	10.63	2.37	15.50	−13.33
R^2	0.33	0.51	0.37	0.56	0.48
CALCULATED F (significance level)	9.20(.00)	4.33(.00)	8.14(.00)	2.17(.01)	2.55(.00)
NUMBER OF OBSERVATIONS	589	152	437	76	107
DEGREES OF FREEDOM	558	122	407	47	78

Note: Each column of the table represents one regression. Each entry gives the regression coefficient, its standard error (in parentheses), and the significance level of the regression coefficient on the hypothesis that its value was zero.

[1]All nominal magnitudes deflated or inflated to 1975 dollars.

[2]Each regression includes the relevant independent variable (X) and its squared value. Each table entry records the marginal effect of the independent variable on the dependent variable, a derivative that varies with the value of X itself. The upper coefficient is that attached to the linear term (standard error in parentheses), and the lower coefficient is twice that attached to the squared term (twice the standard error in parentheses).

[3]Each table entry is that value of X (see note 2) for which weeks worked (table 12.6) or weekly income (table 12.7) is at a maximum or minimum value.

[4]Estimated maximum or minimum value of dependent variable takes place at infeasible values of X (see note 2).

Employment and income recovery were selected for emphasis in this section because they are thought to be the most important ways in which trade-displaced workers would suffer compared to others in the absence of the TAA program. The upper left entry in each table suggests that even with the TAA program, though, trade-displaced workers have less favorable experience than others. A TAA recipient who was identical to a UI recipient in age, experience, industry, socioeconomic status, etc.—and even in the proportion of preseparation income replaced by UI/TAA payments—would nevertheless have worked 4.56 percent fewer weeks over the three-year period, and be earning almost 1 percent (0.831) less per week, than the otherwise comparable UI recipient.

The direction of these differences squares well with intuition, although it is not clear what variables that are excluded from the regression might account for it. But neither the direction nor quantitative size of these differences squares with the one- and two-dimensional comparisons of table 12.5—an anomaly that reveals the advantage of a regression-based approach that holds all other things comparable (*ceteris paribus*). The left-hand regressions of tables 12.6 and 12.7 suggest that the comparative employment recovery of TAA recipients was less favorable than suggested by table 12.5 and that their comparative income recovery was much less *un*favorable.

The left-hand regressions of tables 12.6 and 12.7 were run over a subsample of both UI and TAA recipients.[29] But such a regression forces the responses of each group to control variables to have the same magnitude. One might hypothesize to the contrary that trade-displaced workers have quantitatively different responses because trade dislocation is somehow different from dislocations for other reasons. For example, one could argue that TAA recipients might be more responsive to advance notification than others because of their firm's more precarious market position. Or TAA recipients might be less successful per dollar of income support because they typically have had less experience than others in job search.

Columns (2) and (3) of the tables permit such differential responsiveness by allowing regression coefficients to differ between a UI sample of workers and a TAA sample, as do columns (4) and (5) for further subsamples of permanently displaced UI and TAA recipients.[30] The results do not strongly support the hypothesis of differential responsiveness. The complementary hypothesis that the regression over the UI sample (column [2]) is the same as that over the TAA sample (column [3]) could be definitively rejected only for wage recovery.[31] The hypothesis of identical responsiveness of permanently displaced UI recipients (column [4]) and TAA recipients (column [5]) was never rejected.[32] The appropriate conclusion seems to be that although trade-displaced workers and others do differ in job and income recovery as summarized above,

this difference is due primarily to unidentified variables. Their employment/income experience might otherwise be largely determined by the same conventional list of variables in a quantitatively similar way.

No attempt was made to test more subtle hypotheses, specifically that, while responses were comparable to most independent variables, the two groups of workers responded differently to one or more. Along these lines, there is at least some suggestion in columns (2)–(5) of table 12.7 that wage recovery among UI recipients, but not among TAA recipients, was hurt by being married, female, Hispanic, unionized, or an employee of a company that closed.[33] Among TAA recipients, by contrast, wage recovery seemed importantly and positively determined by their willingness to move geographically, whereas that of UI recipients was not.

Most previous research has focused on workers who are permanently displaced by trade, and the regressions corresponding to this focus are in the right-hand column of each table. Some of the more interesting findings are summarized below. But caution in generalizing is strongly encouraged given the small size of the worker sample (107).

12.4.1 For Permanently Displaced TAA Recipients

1. The larger the proportion of preseparation wages that UI and TAA benefits replaced, especially at the beginning of unemployment experience, the larger the proportion of weeks employed in the subsequent three or three and a half years, and the stronger the income recovery path. The latter finding is familiar; the former much less so. While the former is quantitatively tiny and questionably significant, it suggests a possibility worthy of further investigation. It is well established that generous benefits lengthen first spells of unemployment.[34] Yet they may also thereby reduce the incidence and duration of subsequent spells by increasing the "efficiency" of initial job search. The first job taken after separation may more likely be a "good match."

2. Advance notification of an impending separation had a small and positive influence on job and income recovery, but the coefficients are not very significant by conventional standards.

3. TAA recipients in apparel, footwear, and the auto industry had much more favorable employment experience than TAA recipients in other industries (from seven to seventeen weeks per year more work). It is hard to account for this finding. One might sensibly have conjectured exactly the opposite, especially in apparel and footwear, since industry variables in the regressions might have been supposed to measure the interindustry intensity of import competition on workers. Perhaps in 1976 displaced garment and shoe workers were sufficiently protected by orderly marketing agreements at the product level that their job recovery was faster than elsewhere despite the long decline of their industries.

4. TAA recipients in the auto industry had much more favorable income recovery than TAA recipients in other industries (3.5 percent more *growth* in the weekly wage given what it used to be).

5. Rather than being a liability, the combination of greater age and labor force experience was favorable to employment recovery. Compared to an otherwise identical forty-year-old TAA recipient with twenty years of labor force participation, a fifty-year-old with thirty years of participation worked six and one-half weeks per year more between separation and interview, and a thirty-year-old with ten years of participation worked seven weeks per year less.

6. The combination of greater age and labor force experience was favorable to income recovery only up to a critical level, represented by persons in their mid-thirties with thirteen years of labor force participation. Compared to them, fifty-year-old workers with thirty years of participation recovered 2 percent less of their prior income stream.

7. Being black or Hispanic impeded job recovery, and being black or disabled impeded income recovery.

8. Job recovery was inversely related to labor market incomes of other members of a household, and the quantitative response was surprisingly large (more than two weeks less work per year by the TAA recipient for every $100 of other family income).

9. The incomes of those workers who expressed willingness to pull up stakes and move to find suitable employment were 2.5 percent higher than the incomes of those who were not willing, whether or not a move actually took place.

It bears repeating that these nine conclusions are for permanently displaced TAA recipients only, representing less than one-quarter of the TAA sample. Similar studies might profitably be carried out for temporarily displaced TAA recipients, although intuition regarding their experience is much less well developed. Finally, a great deal more work needs to be done along these lines before any assessment can be made of the robustness of the conclusions of this paper.

Notes

1. Section 12.2 is an expansion of parts of my contribution to Corson et al. (1979).

2. Chapter 10 by Baldwin is an expansion and illustration of these points. Cordes and Weisbrod (1979) identify rejection or reversal each as a form of implicit compensation, while classifying and evaluating other means of indirect compensation.

3. A public opinion survey summarized in Laudicina (1973, pp. 51–57) reveals that the most persuasive reason for opposing free trade was that "free trade would put some American laborers out of work because their jobs can be done by foreign labor at much lower cost." Thirty-four percent of the sample said they would "basically oppose" free trade. But only 15 percent would continue to "basically oppose" it "if American workers

who lost their jobs because of free trade did not suffer any personal financial loss and were retrained in jobs equal to or better than their old ones." The survey is also summarized in Frank (1973, appendix B).

4. In an inflationary environment, not only factor prices themselves, but their rates of increase over time may be temporarily rigid. Rigid rates of increase that are embodied in existing contracts presumably average near the sum of expected rates of inflation and productivity growth.

5. Characterizing dislocation as "involuntary" is controversial, as are therefore the "social" costs that rest on that characterization. The economics of optimal contracts suggests that labor and other factor suppliers may be influenced by uncertainty and subjective attitudes toward risk to *choose* (optimally from their viewpoint) rigid-price or rigid-rate-of-change contracts and (optimally again) to accept the consequent quantity adjustments to their employment and utilization rates. For similar reasons, producers may *choose* to contract for product price rigidity, and may find the offer of fixed-schedule contracts for factor prices more supportive of their goals in the face of uncertainty than flexible-price contracts. When rigid factor and product prices are optimally chosen in this fashion, it is not clear that there is any social cost to the resulting periodic unemployment and excess capacity. In this case, then, the principal defense of TAA must be on grounds of distributional equity.

6. Efforts to calculate these costs empirically have been made by Magee (1972), Cline et al. (1978), and Baldwin, Mutti, and Richardson (1980).

7. Metzger (1971, pp. 319–26) is a useful brief history of the concept and its reference to TAA.

8. Two "needs" for compensation invariably arise in trade policy: the need for domestic losers to be compensated by domestic gainers, and the need for foreign losers to be likewise compensated. In both cases, once the merit of compensation is granted, the key problem is finding the most efficient (or least inefficient) scheme for carrying it out. See Cordes and Weisbrod (1979). Also Bhagwati (1976, 1977) has a detailed theoretical and policy-related analysis of GATT Article XIX, suggesting specifically how it may be modified to account explicitly for the losses to the exporting countries from the invoking of market-disruption-related import restraints.

9. Frank and Levinson (1978, pp. 2–3) cite a number of examples, including an influential article by Clair Wilcox (1950); the "Bell Report" (United States Public Advisory Board for Mutual Security 1953); and the well-publicized 1954 ideas of David McDonald, president of the United Steelworkers of America in the "Randall Report" (United States Commission on Foreign Economic Policy 1954). For eight years following McDonald's proposal, congressional bills were introduced that codified the idea of trade adjustment assistance. But no hearings were ever held, even during consideration of the 1955 and 1958 extensions of the Trade Agreements Act (Metzger 1971, p. 323).

10. Congressional caution was due largely to the unprecedented nature of the program. The early 1960s also marks the beginning of a similar program to assist Americans dislocated by military base closings and to help them adjust. These years also saw passage of labor "adjustment" legislation such as the Manpower Development and Training Act (1962) and the Economic Opportunity Act (1964). On these parallel programs to TAA, see Frank and Levinson (1978, chapters 6 and 7). Trade adjustment assistance was also a temporary feature of the Canadian-American Auto Agreement and is summarized briefly by Fooks (1971, p. 352) and Jonish (1970).

11. One might argue that normal unemployment insurance would have been sufficient. But that would give no weight to the social-choice motivation for compensating this injury. Workers dislocated because of trade liberalization are paying a personal price for a policy deemed socially profitable. On the other hand, workers dislocated because of similar socially profitable policies such as deregulation, environmental control, and occupational safety and health standards receive no compensation beyond UI.

12. Bale (1973) reports an average delay of 13 months between separation and receipt of the first adjustment assistance check. McCarthy (1975*a*, p. 8) reports an average delay of 19.4 months for a sample of dislocated New England shoe workers. Other studies of worker and firm experience under the initial United States TAA program include McCarthy (1975*b*, *c*), Neumann (1978), and Neumann et al. (1976). Studies of worker experience under the most recent TAA program include Corson et al. (1979) and Jacobson (1979). Studies of worker and firm experience under both programs include numerous General Accounting Office reports, Frank and Levinson (1978), and Bale (1979).

13. Alan Deardorff has argued that one should not overemphasize the severing of TAA's link to trade concessions under the 1974 act. TAA is still linked to government trade policy to the extent that if it were not there, then increasingly protectionist trade barriers would substitute for it. One can view the United States government thus as using TAA in the familiar historical way to facilitate "concessions" on *potential* trade barriers (that is, to reject recourse to them).

14. Recent summaries of foreign adjustment assistance programs, some trade-related and some not, exist in Frank and Levinson (1978, chapter 9), Weisz (1978, part 3 and appendixes B and C), and United States General Accounting Office (1979). Baldwin and Bale (1980) contains a useful summary of Canadian adjustment assistance programs, and on these see also Jenkins et al. (1978).

15. This accords well with McCarthy's (1975*c*, p. 63) finding that roughly two out of three reemployed Massachusetts shoe workers who received TAA benefits under the 1962 program remained in the shoe industry. By contrast Neumann et al. (1976, pp. 3–19, 22) found that only about one in five reemployed TAA recipients remained in their former industry.

16. Employers do not pay any supplemental financial penalty for laying off workers who will be supported by TAA supplements to UI. Yet they may take advantage of the fact that comparatively generous TAA benefits make workers less resistant to layoffs. On the possible implications of these matters for temporary unemployment, see Feldstein (1975, 1976, 1978).

17. Use of these adjustment services has increased markedly among recent TAA recipients, however (information provided by C. Michael Aho).

18. Fourteen months on average from the survey, which applied to 1976. The average lag betweeen separation and application was half of the total. Considerable improvement in this aspect of performance has taken place in 1979 and 1980, however. See Rosen (1980, p. 4).

19. As described below, this aspect of any assessment is methodologically difficult. In principle, TAA benefits are paid whenever trade-related injury is documented and are not paid when no injury is present. Thus, in principle, one can observe instances only of simultaneous injury and benefit or of the absence of both. That is, one can detect only the net influence of injury and benefits. Short of social experimentation in which some economic agents experience either the injury or the benefits but not both, there seem to be only very subtle, uncertain ways of quantitatively assessing the scope of injury alone, the impact of benefits alone, or the "extent to which program benefits offset injury." A careful attempt is Jacobson (1979).

20. Previous surveys are referenced in note 12 above.

21. For reasons described in Corson et al. (1979, pp. 195–98), the UI sample was not matched precisely to the TAA sample with respect to either industry (see below) or time of separation. Only 65 percent of the UI sample left their jobs in late 1974 or 1975. Several comparison groups other than comparably located UI recipients were considered, yet seemed like inferior choices for reasons described in Corson et al. (1979, pp. 191–96).

22. This possibility rests on the assumption that wages and other provisions of contracts do *not* vary to offset the unpredictable and uncertain income streams. If contract terms do take account of this uncertainty, then there would seem to be no reason to believe that the

uncertainty produces suffering over the long run, and no case for compensation. See note 5 above. This possibility notwithstanding, uncertainty is precisely the reason why many policymakers subscribe to the need to compensate nations (analogously to workers) for volatile export earnings through the IMF's Compensatory Financing Facility and the EC's STABEX. These are self-financing loan programs, however, which raises the question of whether the TAA program should include concessionary (but repayable) loans for certain purposes.

23. The opposite phenomenon occurs when dollar appreciation is expected, and then actually takes place.

24. All comparisons are to unemployed manufacturing workers who receive UI payments. Such comparisons must be treated with caution, however, because of their one-dimensional nature. Pro-TAA commentary, for example, tempts one to think of recipients as especially "deserving" because they are *both* older and less educated. It is probably more accurate to think of them as less educated *because* they are older. Similarly, age may explain marital status, and both explain stability. Industry mix may explain minority status. Structural expansions of the regression analysis outlined in the next section of the paper could in principle control for such internal causality.

25. The same problem exists for Jacobson (1979) and is discussed by him. The technical counterpart to this statement is that the variable TAA (1 for TAA recipients, 0 for UI recipients) which underlies all the tabulations and regressions in this paper measures the influence on workers of both injury from trade and TAA itself. Tabular information on TAA recipients and regression coefficients therefore reflect the frequently offsetting influences of injury and its policy relief.

26. See Baldwin (1976) for an attempt to do this with congressional voting patterns on commercial policy.

27. Because it is a percentage, the dependent variable is truncated (limited). Ordinary-least-squares regressions such as those summarized below may thus be inferior to those run to explain a logit transformation of the percentage of weeks worked.

28. The presence of past wages in the regression is what allows the coefficients to be interpreted as "income recovery coefficients." Each can be taken to record the impact of the relevant variable on the individual's *change* in weekly wage between separation and interview, given the preseparation wage. This can be most easily seen by subtracting the (log of) preseparation weekly wages from both sides of the regression equation.

Other dependent variables could be examined in the same fashion to discern other differences in TAA and UI experience, e.g., labor force participation, search behavior (measured, say, by the number of job contacts), and adjustment to initial separation.

More precise descriptions of independent variables than provided in tables 12.6 and 12.7 are available from the author.

29. A total of 912 workers were excluded from the regression subsample because of missing or inconsistent data on some of the variables. Details are available from the author.

30. Of the 152 UI recipients in the sample underlying column (2), half were working for the same employer at the interview as when they were separated. Of the 437 TAA recipients in the sample underlying column (3), 76 percent were only temporarily displaced in this fashion.

31. The calculated value of the relevant F statistic was 2.22, versus critical values of 1.46 for a 5 percent significance level and 1.70 for a 1 percent significance level. In the employment recovery regressions of table 12.6, the calculated F statistic was 1.48.

32. The calculated values of the relevant F statistics for tables 12.6 and 12.7 were 1.08 and 1.42, respectively, compared again to critical values of 1.46 (5 percent significance) and 1.70 (1 percent significance). Note that the job recovery regression run over the permanently displaced UI sample was not itself significant at conventional levels.

33. All these relationships appeal to intuition except that between marriage and wage recovery. The negative impact of unionism in the former job is sensible if union members

are paid more than others, other things being comparable, since some union members will be forced to take subsequent jobs that are not unionized.

34. Hamermesh (1977) provides a summary.

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Comment C. Michael Aho

Richardson's paper provides an excellent summary and extension of the findings of a research contract done for my office by Mathematica Policy Research (Corson et al. 1979). He was one of the authors of that report, which was a useful, if not definitive, analysis of the workings of the trade adjustment assistance (TAA) program.

The Mathematica survey summarized by Richardson indicates that TAA recipients fall into three distinct categories—temporary layoffs, permanent separations, and partial separations. By far, the largest group was temporary layoffs (58 percent), followed by permanent separations (25 percent) and partial separations (17 percent). TAA recipients were older and less educated, and had higher earnings prior to separation than did other workers. Partly because of these factors, the study found that those TAA recipients who changed employers had substantial earnings losses for prolonged periods of time. These individuals suffered greater losses than did other permanent displacements.

Thus, while TAA recipients on average conformed with a priori expectations, the distribution of TAA payments raises serious equity questions. Further, since the permanent separations suffered more in terms of earnings losses, the survey revealed not only that the benefits may be inequitably distributed, but also that the adjustment services were not helping job changers to secure employment at an income level comparable to that from their former job.

As for the econometric analysis, the results obtained by Richardson are similar to those included in the Mathematica report except he used weeks worked between separation and interview instead of unemployment duration and weekly income at interview instead of earnings differentials. The survey collected a wealth of data and provided observations on most individual characteristics and labor market outcomes which ideally would be needed for a statistical analysis. For this reason, there is a temptation to include most of these variables in regressions as Richardson has done. However, this makes the results difficult to read and interpret. It can be argued that each regression includes too many variables. For example, two explanatory variables are included simultaneously to measure advance notice: weeks of official employer notification prior to separation and weeks of suspected job loss prior to official employer notification. It would have been better to run, alternatively, the first measure, official

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These comments are the author's personal observations and do not necessarily reflect the views of the Department of Labor.

weeks, and then the first plus the second, suspected weeks plus official weeks. There is no reason to expect separate, independent effects from these two variables.

Similarly, in the wage equations, for example, it is incorrect to include "reservation income" as an independent variable, along with all the other variables that may affect subsequent wages through reservation income. A more selective strategy for choosing regression variables would have strengthened the analysis.

Although Richardson displays separate results for the entire sample, all TAA recipients, all UI recipients, permanently displaced TAA recipients, and permanently displaced UI recipients, and he stresses the wide differences between groups, he does not take advantage of the separation to conduct tests for significant differences between the equations. If analysis of covariance techniques had been used, one suspects a test of the overall regressions would lead to a rejection of the null hypothesis that they were drawn from the same sample. It would have been of even more interest to see if and to what extent the coefficients of the outcome variables differed for TAA and UI recipients and between the permanently displaced receiving TAA and those receiving UI.

However, even if an analysis of covariance had been conducted on a smaller number of variables, the issue of the proper control group would still remain. The sample of UI recipients in manufacturing is not an adequate control group for testing many of the more interesting hypotheses. Ideally, a larger sample, representative of manufacturing workers drawn from the same industries, would allow for tests of significant differences in labor market response and outcomes between the TAA population and other unemployed workers. The same industrial composition is important because the occupational mix and labor market outcomes are industry-specific. Jacobson (1978), for example, has shown how earnings losses are industry-specific.

Finally, it should be stressed that the survey was retrospective—workers were interviewed over three years after the layoff—and it was a survey. Richardson claims (section 12.3.1) that a check of "known characteristics of nonrespondents . . . suggested little nonresponse bias," but it was not tested for explicitly. In California, for example, the response rate was only 48 percent for TAA and 31 percent for UI recipients. No systematic effort was made to determine why response was so poor or, more importantly, what were the characteristics of nonrespondents.

Before raising research and policy issues which follow from Richardson's detailed statistical analysis, I would like to put the program in a different perspective—to set it in the political environment where trade policy decisions are made. The political case for some sort of compensation and adjustment program, like TAA, is that those who are most likely to be hurt by a freer trade policy frequently have the political power to

block efforts to ease trade restrictions unless there exists some mechanism to compensate the "losers" for the costs (primarily earnings losses) of adjusting to a policy of freer trade.

The United States trade adjustment assistance program is scheduled to expire in September 1982 unless extended by the Congress. The program is currently mired in controversy because of budget overruns and perceived inequities and inefficiencies in the delivery of benefits and services, and will be the subject of an intense review over the next eighteen to twenty-four months. What has thus far been overlooked in the debate surrounding the program is the benefits from trade liberalization made possible as a result of the program's adoption. There are three distinct benefits. First, adoption of a liberalized TAA program was essential for the ability to engage in the recent Tokyo Round of the multilateral trade negotiations (MTN). Second, the existence of TAA gives the President and Congress an intermediate policy option between trade restrictions and no import relief. By providing some relief to displaced workers, TAA makes it easier politically to facilitate expanded trade opportunities. Finally, to the extent the program keeps down trade barriers or enables them to be reduced, it not only increases the economic welfare of the United States, but that of our trading partners as well.

The TAA program was an important precondition for legislative authority for United States participation in the Tokyo Round. In this political context, it is useful to compare the welfare gains from the MTN tariff cuts with the costs of the TAA program.[1]

Estimates of the annual static United States welfare gains from the MTN tariff reductions range from about $130 to about $770 million annually (Aho and Bayard 1980). These estimates pertain only to the effects of the tariff cuts, which were a relatively small part of the Tokyo Round. Most of the emphasis in the MTN was on drafting codes of conduct on nontariff barriers. These nontariff codes are expected to significantly reduce many nontariff barriers. Finally, the estimates are static. It has been argued that the potential dynamic gains are several times the size of the static gains. Given all of these factors, the welfare gains from the MTN could be several times the static estimates of $130–$770 million.

The administrative costs of the TAA program since its inception in 1975 have been in the range of $3–$5 million, and the beneficiary payments have until this year been less than $300 million. Thus even the sum of administrative costs and payments to workers is less than the annual static welfare gains from the MTN tariff cuts, at least until recently. (Only the administrative costs should be used for welfare comparisons.)

On the whole, TAA looks like a fairly good investment. A broader view of the MTN would incorporate the welfare impact of the MTN

codes, the growth in trade, and other dynamic effects. This broader view would also include the opportunity cost of the MTN, not in terms of the status quo, but in terms of the likelihood that trade restrictions would have actually increased in the absence of the MTN. Taken together, these broader (and less easily quantifiable) welfare considerations suggest that the costs of the TAA program are probably significantly less than the gains from the MTN.

Even trade restrictions in selected industries can have significant consumer and welfare costs when compared with the administrative costs and benefit levels of the TAA program. T. Bayard and I compared the costs of TAA with welfare and consumer cost estimates for four industries where import relief was recommended recently by the International Trade Commission (stainless steel, leather-wearing apparel, and copper) or considered by the administration (autos) (Aho and Bayard 1980). In each case the President rejected relief and recommended that expedited adjustment assistance be granted instead.

In the case of autos, the annual welfare costs of restricting Japanese imports to 1979 levels (an estimated reduction of 250,000 units) would range from $25 to $40 million. The consumer costs estimates range from $1 to $2 billion annually.

In announcing his decision, the President noted that "between this fiscal year and the next, we are budgeting over a billion dollars extra to provide trade adjustment assistance to tide the auto workers over until new jobs can be provided for them." Thus, to the extent the existence of the TAA program makes it easier politically for the President to deny import restrictions, the program has beneficial impacts which are often ignored in narrow examinations of the efficiency consequences of increased benefits to displaced workers.

Although I have been approaching this in terms of a political and economic cost-benefit analysis for the United States, I hasten to point out that liberalized trade has benefits for the other nations of the world which are not accounted for in the calculations above. Although they do not vote in United States elections, foreign workers and producers in export industries should be in favor of a worker adjustment assistance program in the United States because the alternative, increased incentives to restrict trade, can have adverse effects on their employment and earnings.

This highlights an aspect of TAA that is appealing to the foreign policy community usually not interested in internal distributional questions. Although Richardson correctly points out the thorny internal equity issues raised by TAA, all categorical governmental assistance programs have efficiency and distributional consequences. The one distinguishing feature of the TAA program is that the international distribution of

income is affected. TAA is an integral part of United States commercial policy, and to the extent it promotes expanded trade, other countries gain and we increase our links to the rest of the world.

Returning to Richardson's paper, several key research issues for the future are suggested by his analysis. They include: (1) What are the costs and benefits of alternative ways of reducing the costs of worker dislocation while minimizing employment disincentives following such dislocations due to trade? (2) How can the current empirical measures of adjustment costs be improved to reflect all aspects of costs including uncertainty and secondary consequences for other workers in the industry or community? (3) What can we learn from studying adjustment processes and policies in other countries and in different institutional settings? and (4) How and at what cost can we encourage workers to take positive adjustment actions, and what is the best method of delivering adjustment services?

The last question may prove to be the most crucial in the 1980s. It has become trite to point out that the United States is rapidly becoming more internationalized, but this internationalization is causing structural changes for United States industry. In order to respond to this structural change, the United States needs policies and programs which promote rather than impede the adjustment of dislocated workers. Alteration of the existing TAA program to emphasize adjustment, if successful, could enhance the flexibility and adaptability of the economy. The basic policy challenges are to develop a compensation scheme that will not serve as a disincentive for adjustment and to design a delivery system for the adjustment services.

However, all programs raise difficult efficiency and equity questions, and they must be examined closely in order to design an improved adjustment assistance program which minimizes distortions. When ideal lump-sum transfers are not possible but compensation is still desired, the objective should be to compensate while minimizing distortions. And when the price system is used to aid displaced workers, some distortion is inevitable. Although we recognize that in the absence of market imperfections (imperfect mobility, uncertainty, etc.) the price system would allocate resources most efficiently, we are in a second-best world.

Whenever a price is altered, it influences market behavior and it distributes income. If we object to the allocations and distributions that result from government intervention, we must ask ourselves what the alternative is. In a real-world setting where political and distributional questions often dominate efficiency considerations, a second-best compensation policy may indeed be superior to a world in which government interference is minimized, and the incentives for special interest-group lobbying are increased. If the lobbying were not effective, then the case for a special trade-related program would be much weaker. But the

market for political influence is not perfectly competitive, and it is very likely that impacted workers (firms, communities, regions) can lobby successfully for import relief. By reducing dislocations costs the TAA program helps to reduce the incentives to lobby.

After reading Richardson's paper some of you may be asking, Whither TAA? In my opinion, the principle of a special program for trade-impacted workers is worth keeping because it can have desirable effects nationally and internationally by promoting expanded trade opportunities and more efficient adjustment to changes in trade. Further, because individuals and interest groups made concessions and altered their own economic and political decisions in exchange for a liberalized TAA program, it is unlikely that the TAA program will be eliminated. Granted, some may wish to alter certain features of the program to minimize disincentives or to rectify perceived distributional inequities; but those are essentially political decisions.

From that perspective, the question now becomes, How can the program be improved? This is where Richardson's study and the Mathematica survey can play an important role by providing objective analysis to the policymakers who ultimately must decide.

Notes

1. The MTN passed in the United States Congress by overwhelming votes: 395 to 7 in the House of Representatives and 90 to 4 in the Senate. However, the fragility of that political support was aptly demonstrated by a quote from Representative Vanik from Ohio, the chairman of the House Subcommittee on Trade. In arguing for the need for an expanded TAA program, Representative Vanik noted that "trade support on the Hill is fragile—there are 100 members of Congress who don't believe in trading with anybody. A majority in opposition to free trade can be achieved if labor is alienated." Cited in *Barrons* (5 May 1980).

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Comment Martin Wolf

These comments comprise, first, a brief discussion of the paper; second, a critique of the United States trade adjustment assistance (TAA) program for workers; third, a cursory review of the parallel program for firms; and, finally, an assessment of the relevance of this program to experience in other developed countries, especially in Europe.

The Paper

Professor Richardson's paper provides a lucid and convincing account of the origin of, and justification for, the United States trade adjustment assistance program for workers. He also offers a description of the characteristics of workers helped by the program both in simple tables and in the form of regressions. There are a few surprises. Thus the tables show that the workers tended to be better paid than the average of recipients of unemployment insurance and that almost 60 percent were only temporarily laid off as against 40 percent for recipients of unemployment insurance. The regressions indicate that benefits were actually positively associated with number of weeks worked between separation and interview, while the latter was—perhaps less surprisingly—negatively associated with educational attainment. Other observed characteristics of the workers are more or less what would be expected. The interpretation of these results is made difficult, however, by the wealth of independent variables and the lack of information on the extent to which they are correlated with one another.

It should be noted that the two characteristics of the assisted workers that are most surprising, namely, their high average wage and the large number of temporary layoffs, are probably explained by the substantial presence of steel and auto workers among those helped in 1976. Indeed, the role of the program in providing countercyclical aid to workers in these industries is one of its more controversial aspects.

An Evaluation of United States Trade Adjustment Assistance for Workers

Five questions can usefully be asked: What are the implications of the program for economic efficiency? Does the program have a positive impact on the distribution of income? Is adequate compensation provided for losses borne by workers when deprived of a job? Is the program an effective bribe from the point of view of reducing protectionist pressure? Does it have a satisfactory philosophical basis?

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What are the efficiency implications of TAA? The program provides assistance to workers for job search, relocation, and training. The theory is that such support will directly improve the efficiency of adjustment, perhaps because of capital market constraints that would otherwise deter workers. In practice, these provisions have hardly been used. Thus, out of 335,000 workers helped under the post-1974 program by May 1978, only 1,075 were approved for job-search allowances, 557 were approved for relocation allowances, and 9,843 were trained. The same justification might, however, be given for the income support payments themselves, since they may make it easier to finance efficient job search, retraining, and relocation, if workers lack savings or recourse to credit. Finally, to the extent that the existence of the program encourages workers to accept layoffs, efficiency may be promoted or retarded depending on whether, on balance, adjustment would otherwise tend to occur too slowly or too rapidly.

In its current form the present program is as likely to impair efficiency as to improve it. For those who enjoyed relatively well paid jobs the payments may encourage them to wait in the hope of getting the old job back. This tendency will be increased by the knowledge that there is a permanently higher likelihood of what is, in effect, greater unemployment compensation in import-affected industries than in others. This is, indeed, a general moral hazard created by TAA, since entry into industries subject to import competition is encouraged. It should also be noted that, as with any scheme to provide periodic payments for the unemployed, there is a reduced incentive to seek work. Whether these various potential problems are significant in practice is unclear. Richardson indicates that there is no tendency for those who receive higher benefits to remain unemployed for longer periods (if anything the contrary). Furthermore, since certification is by no means a foregone conclusion, uncertainty about eligibility will reduce the temptation to get in the way of a potential "accident." A reasonable assessment has to be that it is unclear whether the program is beneficial, harmful, or neutral from the point of view of efficiency.

Does TAA improve the distribution of income? It is not obvious that the program is even designed to improve the distribution of income. One obvious point is that many of the recipients have been relatively well paid in the past and can expect to be so again in the future. Furthermore, those worst hit, who are likely to be those who have little possibility of obtaining work again, get nothing after the eligibility period of one year.

Does TAA provide adequate compensation for losses? Even if income is not transferred to the relatively poor, the program may be justified as compensation for undeserved losses on the lines of Corden's (1974)

conservative social welfare function argument. TAA is, in fact, far from ideal compensation, since it is certainly not generous enough (as Bale 1976 has shown, for example). Furthermore, compensation is provided only for loss of income while unemployed. There is no compensation for permanently lost quasi rents to owners of sector-specific human capital.

Is TAA an effective bribe? By providing compensation to those injured by a change that benefits the public as a whole, it is expected that, in the first place, the political resistance of those directly affected will be reduced and, in the second place, the more altruistic members of the public will have their consciences mollified and will consequently regard liberalization as more acceptable. The first part of the argument does not seem to work since compensation is insufficient for most of those who move and provides nothing for those who do not (whose prospects are also likely to be worsened). Furthermore, because the assistance is usually uncertain at the time of the job loss (since the certification process takes time and is usually *post hoc*), it is likely to be discounted (thus reducing both the moral hazard and the effectiveness of the bribe at the same time). It is also worth noting that some of the most influential lobbyists—industrialists and trade union leaders, for example—fall entirely outside the net. It is therefore not surprising that the program has been dismissed as "burial insurance."

The second point seems to be more persuasive. It has been argued that without adjustment assistance for workers neither the 1962 Trade Expansion Act nor the Trade Act of 1974 could have passed. Furthermore, the existence of the program may perhaps make it easier to avoid granting protection in individual injury cases.

What is the ethical basis for the program? It is important to note the change pointed out by Richardson between TAA under the 1962 act, which was triggered by a finding that a government policy decision, namely, Kennedy Round liberalization, was a "major" cause of injury, and TAA under the 1974 act, which could be triggered by any injury to which imports contributed "importantly." In the former case transitional equity considerations (Hochman 1974) may justify compensation since citizens can reasonably expect to make decisions on the assumption that announced government policy is stable. Compensation for change in general, however, is more difficult to justify and can hardly be restricted to that created by one particular source, namely, imports. This blurring of the rationale was the heavy price for making the program more effective. The ethical problem is still greater if those assisted are obviously not among the least well off in society. Finally, if "political reality" justifies such a supernormal bribe, a very clear reward is given to politically obstructive behavior.

One quasi-philosophical issue raised by the program is frequently overlooked. By its nature TAA involves the grant of substantial amounts of money by the bureaucracy on an essentially arbitrary basis. The criteria for determining whether imports contribute "importantly" can never be watertight, and, in addition, some discretion must be allowed in applying them. This creates problems both for the bureaucrats themselves and, still more, for the public, who can come increasingly to see the former as essentially a source of arbitrary and therefore unfairly distributed benefits.

Conclusion. It is clear that TAA is open to a number of strong objections which result in part from the multiplicity of objectives, in part from difficulties in justifying any program restricted to a particular source of injury, and in part from specific features of its operation. Possible improvements could include the provision of some benefits to those who stay on in an industry; the offer of an unconditional lump sum rather than periodic payments; relating the sum to age, length of service, and other factors that determine adjustment costs to workers; and making all benefits available as of a certain (unique) date to those then in the industry (or firm) with no subsequent repetition. The date could be that of a policy change (e.g., liberalization) or an injury finding. While there is no program that will satisfy all objections, improvements can certainly be made in such ways.

What Is the Effect of TAA for Firms?

Industrialists are hurt by import competition and form powerful lobbies. They may also not know how to improve their operations. Thus there is some sort of case for assistance to them. Interestingly, United States assistance to firms, by rewarding attempted survival rather than exit, is the inverse of that to workers. Thus the program provides loans and loan guarantees, as well as assistance in obtaining consultants, to firms that intend to stay in business, usually in the same industry. If imports are really a key source of problems (which is the rationale for TAA), the assistance is unlikely to work, strong comparative disadvantage being difficult to reverse. If imports are not the cause, the case for special assistance is more difficult to make. In practice, failure by assisted firms seems to have been common. As politics the program has the major disadvantage that the protectionist lobby is preserved in being. These features of assistance to firms facing problems with imports are common to most programs around the world.

Is the United States Program Generalizable?

As it now exists, United States TAA is essentially unique. In Europe, in particular, no equivalent exists. Why? The reasons are relatively

straightforward. In the first place, trade is so large in relation to most countries' GNP that trade-related change could never be separated out. The only answer would be to focus on extra–EEC trade or a component of it (such as trade with developing countries). While the Dutch do have an (unsuccessful) program for firms which does the latter, the political resistance to favoring extra–EEC trade specially would be great. In the second place, social security benefits are already higher in most European countries than the United States even after the TAA supplement. Any additional benefits could raise the levels to almost ridiculous heights. Finally, the entire approach to adjustment tends to be more active and dirigiste. Thus European governments pursue "active labor market policies" (especially in Sweden), as well as strong regional policies (aimed at moving investment rather than labor), and even get directly involved in decision making by industries and firms. The approach consists therefore not of bribery to allow the market to work (which is essentially the United States approach), but of actively managing and redirecting the adjustment process itself. The polar case of this approach among the developed countries is Japan's. Thus the United States programs consist of a response to import competition that is uniquely suited to its own economic and political circumstances but that is, unfortunately, flawed in a number of respects even within that framework.

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